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June 15, 2021

Ms. Teresa McDill
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division, Environmental Bureau
TeresaL.McDill@state.nm.us

Re: Submittal of the *2020 Annual Discharge Report* and the *2020 Annual Groundwater Monitoring Report* for the HollyFrontier Navajo Refining LLC, Artesia Refinery, Discharge Permit GW-028

Dear Ms. McDill:

Please find attached electronic copies of the *2020 Annual Discharge Report* and the *2020 Annual Groundwater Monitoring Report*, which fulfill requirements of Section 2.E of Discharge Permit GW-028. If you should have any questions or comments regarding this report, please feel free to contact me at (575) 746-5487 or Jason Leik at (214) 970-8902.

Sincerely,

Kawika Tupou
Environmental Manager
HollyFrontier Navajo Refining LLC

cc: OCD: C. Chavez, G. Wade
HFC: J. Leik
TRC: J. Speer, D. Helbert, C. Smith

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC

Artesia Refinery

NMD048918817 and DP GW-028

Prepared For:

HollyFrontier Navajo Refining LLC

501 E Main Street,

Artesia, NM 88210

February 2021



HOLLYFRONTIER®

2020 Annual Groundwater Monitoring Report

NMD048918817 and DP GW-028

HollyFrontier Navajo Refining LLC
Artesia Refinery
Artesia, New Mexico

Prepared for:

HOLLYFRONTIER

HollyFrontier Navajo Refining LLC
Artesia, New Mexico

Prepared by:

TRC

TRC Environmental Corporation
Austin, Texas

TRC Project No. 377269

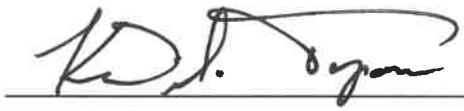
February 2021

TRC Lead _____

Julie Speer, Project Manager

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Kawika Tupou

Environmental Manager, HollyFrontier Navajo Refining LLC

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Acronyms and Abbreviations

Notation	Description
1,1,2-TCA	1,1,2-trichloroethane
1,2,4-TMB	1,2,4-Trimethylbenzene
1,3,5-TMB	1,3,5-Trimethylbenzene
cis-1,2,-DCE	cis-1,2,-Dicholoroethene
CGWSL	Critical Groundwater Screening Level
COC(s)	Constituent(s) of Concern
DO	Dissolved Oxygen
DRO	Diesel Range Organics
EDB	Ethylene Dibromide, 1,2-dibromoethane
EP(s)	Evaporation Pond(s)
FWGMWP	Facility- Wide Groundwater Monitoring Workplan
GRO	Gasoline Range Organics
HMI	Hydrologic Monitoring, LLC
HWB	Hazardous Waste Bureau
HFNR	HollyFrontier Navajo Refining LLC
MCL	Maximum Contaminant Level
mg/L	Milligrams per liter
MTBE	Methyl Tert-Butyl Ether
NCL	North Colony Landfarm
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NWS	National Weather Service
O&M	Operation and Maintenance
OCD	New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division
ORP	Oxidation-Reduction Potential
PCC Permit	Post-Closure Care Permit
PSH	Phase-Separated Hydrocarbons
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RO	Reverse Osmosis

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Notation	Description
SVOCs	Semi-Volatile Organic Compounds
SWMU	Solid Waste Management Units
TCE	Trichloroethene
TDS	Total Dissolved Solids
TEL	Tetra Ethyl Lead
TMD	Three Mile Ditch
TPH	Total Petroleum Hydrocarbons
TRC	TRC Environmental Corporation
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

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Executive Summary

This *2020 Annual Groundwater Monitoring Report* documents groundwater monitoring and recovery activities conducted at the HollyFrontier Navajo Refining LLC (HFNR) Artesia Refinery (refinery) located at 501 East Main Street in Artesia, New Mexico. The refinery is subject to a Post-Closure Care Permit (PCC Permit) issued by the New Mexico Environment Department (NMED) in October 2003 and later modified in December 2010; as well as Discharge Permit GW-028 issued by New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) on May 25, 2017. Both the PCC Permit and Discharge Permit require HFNR to conduct facility-wide groundwater monitoring to evaluate the presence, nature, and extent of groundwater impacts; and to remediate impacted groundwater. This report provides the results of all groundwater monitoring and remedial activities that were conducted to satisfy both the NMED PCC Permit and the OCD Discharge Permit.

The groundwater monitoring program consists of semiannual well gauging and groundwater sampling in accordance with the *2019 Facility-Wide Groundwater Monitoring Work Plan* (2019 FWGMWP) that was submitted to the NMED and OCD in June 2019 and approved on February 17, 2020. Additional sampling was conducted in 2020 in accordance with the December 28, 2018, submittal letter of the "*SWMU / AOC Group 3 Additional Corrective Action Investigation Report – Revision 2* (SWMU/AOC Group 3 Rev 2 transmittal letter) and NMED's subsequent response letter dated March 22, 2019. Remedial activities consist of recovery of phase-separated hydrocarbons (PSH) and impacted groundwater. The groundwater monitoring and remediation program covers the following refinery areas:

- The closed Tetra Ethyl Lead (TEL) Impoundment
- The closed North Colony Landfarm (NCL)
- The inactive Evaporation Ponds (EPs)
- Three Mile Ditch (TMD)
- The impacted vadose zone located beneath the refinery in the following other areas: Field East of Refinery, North Refinery, South Refinery, Reverse Osmosis (RO) Reject Fields, Cross-gradient of Refinery, and Up-gradient of Refinery

The 2020 groundwater monitoring results indicate physical and chemical groundwater conditions are generally consistent with historical data. Groundwater predominantly flows to the east beneath the refinery towards the Pecos River, and to the southeast beneath the EPs. Measurable PSH was present in wells located at or near the EPs, Field East of Refinery, North Refinery, NCL, South Refinery, and TEL areas in 2020, with a maximum measured thickness of 6.26 feet during the first semiannual event and 5.51 feet during the second semiannual event. The presence and distribution of PSH in 2020 was generally consistent with historical data and measured PSH thicknesses are overall stable to decreasing over time despite fluctuations inversely related to groundwater elevations. Groundwater elevations have generally decreased since 2017, with historical minimums observed in many wells with PSH during October 2020. The following constituents of concern (COCs) were detected in groundwater at concentrations in

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exceedance of critical groundwater screening levels (CGWSLs): total petroleum hydrocarbons (TPH) diesel range organics (DRO); select volatile organic compounds (VOCs) including target COCs benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), and naphthalene; select semi-volatile organic compounds (SVOCs); select total metals including target COC arsenic; and water quality parameters chloride, fluoride, sulfate, total dissolved solids (TDS), and nitrate/nitrite. COC concentrations in groundwater are generally stable to decreasing over time despite occasional fluctuations. Certain wells that previously exhibited increasing concentration trends have exhibited stable concentration trends over the most recent sampling events.

PSH and impacted groundwater were continually recovered at the refinery from an automated system of recovery trenches and recovery wells throughout 2020. An estimated 4,375,556 gallons of groundwater and an estimated 224,098 gallons of PSH were recovered through operation of the automated recovery system in 2020. An additional 102 gallons of PSH was manually recovered from wells not connected to the automated system by bailing or pumping on a periodic basis.

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1.0 Introduction

On behalf of HollyFrontier Navajo Refining LLC (HFNR), TRC Environmental Corporation (TRC) prepared this 2020 Annual Groundwater Monitoring Report (report) to summarize the results of groundwater monitoring and recovery activities conducted in 2020 at the Navajo Artesia Refinery (refinery) located at 501 East Main Street in Artesia, New Mexico. The location of the refinery is shown on Figure 1. The refinery has been in operation since the 1920s and processes crude oil into asphalt, fuel oil, gasoline, diesel, jet fuel, and liquefied petroleum gas.

The refinery is regulated under the Resource Conservation and Recovery Act (RCRA). In October 2003, the Secretary of the New Mexico Environment Department (NMED) issued a Post-Closure Care Permit (PCC Permit) to HFNR for the Artesia Refinery Facility (United States Environmental Protection Agency [US EPA] ID number NMD048918817). The PCC Permit was modified and reissued in December 2010 (NMED 2010). The PCC Permit authorizes and requires HFNR (the Permittee) to conduct post-closure care at the closed tetra ethyl lead (TEL) surface impoundment and the North Colony Landfarm (NCL) and to take appropriate actions to achieve RCRA closure of the inactive Evaporation Ponds (EPs). These areas and the locations of all existing monitoring and recovery wells are shown on Figure 2.

The PCC Permit requires HFNR to maintain a groundwater monitoring program to evaluate the effectiveness of the corrective action program for groundwater and to meet the requirements of New Mexico Administrative Code (NMAC) 20.4.1.500 (incorporating 40 Code of Federal Regulations Part 264, Subpart F) during the post-closure care period. The PCC Permit also requires HFNR to recover phase-separated hydrocarbon (PSH), where present, from the shallow groundwater.

The refinery is also regulated by the New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division (OCD). The OCD issued a renewal to Discharge Permit GW-028 (OCD 2017a) on May 25, 2017 and modifications on June 29, 2017 (OCD 2017b), October 25, 2018 (OCD 2018a), and December 14, 2018 (OCD 2018b). Among other requirements, the Discharge Permit requires semiannual facility-wide groundwater monitoring and submittal of an annual report summarizing the groundwater monitoring and remediation conducted throughout each year.

This report provides the results of all groundwater monitoring and remedial activities that were conducted during 2020 to satisfy both the NMED PCC Permit and the OCD Discharge Permit. The format of this report follows specifications in Appendix E.4 of the PCC Permit.

Groundwater monitoring activities conducted in 2020 consisted of semiannual well gauging and groundwater sampling. The semiannual monitoring events were performed in accordance with the (1) 2019 Facility-Wide Groundwater Monitoring Work Plan (2019 FWGMWP; TRC 2019) that was submitted to the NMED and OCD in June 2019 and approved by the NMED on February 17, 2020 (NMED 2020a) and (2) the December 28, 2018, submittal letter of the "SWMU / AOC Group 3 Additional Corrective Action Investigation Report – Revision 2 (SWMU/AOC Group 3 Rev 2 transmittal letter; HFNR 2018) and NMED's subsequent response letter dated March 22, 2019 (NMED 2019a). Remedial activities conducted in 2020 consisted of recovery of PSH and impacted groundwater and periodic gauging of recovery wells. The

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groundwater monitoring and remediation activities were performed in the following refinery areas of interest:

- The closed TEL Impoundment
- The closed NCL
- The inactive EPs
- Three Mile Ditch (TMD)
- The impacted vadose zone located beneath the refinery in the following other areas:
  - Field East of Refinery
  - North Refinery
  - South Refinery
  - Reverse Osmosis (RO) Reject Fields (North and South)
  - Cross-gradient of Refinery
  - Up-gradient of Refinery

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2.0 Scope of Services

Groundwater monitoring, remedial, and other associated activities performed in 2020 are summarized in this section. The first semiannual groundwater monitoring event was conducted from June 16 to June 18, 2020. The second semiannual groundwater sampling event was conducted from October 6 to October 7, 2020. Routine remedial activities were conducted throughout 2020.

The first semiannual groundwater monitoring event was originally scheduled for the week of April 13, 2020, but was postponed due to the public health emergency and travel restrictions associated with the coronavirus disease of 2019 (COVID-19) pandemic. The event was rescheduled for the week of June 15, 2020. Appropriate notifications were made to the NMED regarding the rescheduling of activities.

2.1 Monitoring Well Installation, Maintenance, and Repairs

Eight monitoring wells (MW-53R, MW-62R, MW-137A, MW-138A, MW-145, MW-146, MW-147, and MW-148) were installed in September 2020, as detailed below. These wells were gauged and sampled (if less than 0.03 feet of PSH measured in well) during the second 2020 semiannual event and will be added to the facility-wide groundwater monitoring program in the 2021 annual update to the FWGMWP in June 2021. Boring logs and well construction details for each well are provided as Appendix A.

- MW-53R was installed on September 23, 2020 along the US Highway 285 right of way, up-gradient of the NCL. MW-53R was installed in the shallow saturated zone as a replacement for MW-53, which was likely destroyed during road construction activities. The replacement well was completed consistent with the former well. MW-53 could not be located to plug and abandon.
- MW-62R, MW-137A, and MW-138A were installed on September 1 to 4, 2020 in the north central portion of the refinery in the North Refinery Area at locations adjacent to existing wells MW-62, MW-137, and MW-138, respectively. The wells were installed in the shallow saturated zone in accordance with the *Nested Well Installation Work Plan for SWMU / AOC Group 3* (Wood 2019) dated December 30, 2019, NMED's subsequent approval with modifications letter dated April 6, 2020 (NMED 2020b), and the subsequent response to NMED comments letter dated June 25, 2020 (HFNR 2020). Well installation and development activities will be documented in a forthcoming report. MW-137A and MW-138A were not sampled during the second 2020 semiannual event due to the presence of PSH at a thickness greater than 0.03 feet.
- MW-145 through MW-148 were installed on September 22 to 24, 2020, down-gradient of the refinery, in the Field East of Refinery. The wells were installed in the shallow saturated zone in accordance with the scope of work that was submitted to the NMED and the OCD in an email on May 21, 2019 (HFNR 2019), and approved with modifications by NMED and OCD in emails on May 29, 2019 (NMED 2019b; OCD

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2019). Well installation, development, and sampling activities are documented in the February 2021 *Downgradient Groundwater Investigation Report* (TRC 2021).

The following well maintenance was performed in 2020:

- Locking J-plugs and locks were replaced on various monitoring wells as required throughout 2020.
- PSH absorbent socks were installed and maintained in various wells including MW-64, MW-65, MW-85, MW-86, MW-99, NCL-34A, KWB-4, KWB-7, KWB-8, KWB-11B, RW-17A, RW-17G, and TEL-3.

2.2 Phase-Separated Hydrocarbon and Water Level Measurements

Synoptic fluid gauging was conducted by Hydrologic Monitoring, LLC (HMI) at the beginning of each semiannual monitoring event in accordance with the 2019 FWGMWP. Wells were gauged to determine the groundwater elevation, flow direction, and gradient, the presence or absence of PSH, and apparent PSH thickness. A decontaminated oil-water interface probe was used to measure depth to PSH (if present), depth to water, and total depth in the monitoring and recovery wells. All measurements were recorded to the nearest 0.01-foot from the surveyed datum marking on each well casing. If the survey datum mark was not visible, measurements were obtained from the northern side of each well riser. Measurements were recorded on the field data sheets for each event.

The first semiannual gauging event was conducted on June 15 to 16, 2020. All wells were gauged within 48 hours in accordance with the 2019 FWGMWP. No rainfall was recorded at the refinery, or at a National Weather Service (NWS) gauging station located approximately 6 miles south of the refinery during the days on which gauging occurred. A total of 0.28 inches of rainfall was recorded at the NWS gauging station during the month of June 2020. Rainfall of 0.02 inches was recorded on June 12, 2020, three days before gauging activities; the remainder occurred after completion of gauging and sampling activities. A copy of the NWS data for June 2020 is provided in Appendix B.

The second semiannual gauging event was conducted on October 6, 2020. All wells were gauged within 48 hours in accordance with the 2019 FWGMWP. No rainfall was recorded at the refinery or the NWS gauging station during the days on which gauging occurred. A total of 0.05 inches of rainfall was recorded at the NWS gauging station during the month of October 2020, all of which occurred after completion of gauging and sampling activities. A copy of the NWS data for October 2020 is provided in Appendix B.

Results of the 2020 semiannual gauging events are summarized in Table 1. Potentiometric surface maps of the shallow saturated zone and valley fill zone are provided as Figures 4 through 7. PSH thickness maps are provided as Figures 8 and 9.

2.3 Groundwater Sample Collection and Handling

Semiannual groundwater sampling was conducted by HMI in accordance with the 2019 FWGMWP. No sample was collected from a well containing PSH with a measured thickness

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greater than or equal to (≥) 0.03 feet in accordance with the 2019 FWGMWP. The following wells were not sampled during each 2020 semiannual event due to the presence of PSH at thicknesses ≥0.03 feet:

- First semiannual event: MW-48, MW-58, MW-65, MW-67, MW-85, MW-92, MW-94, MW-97, MW-107, MW-112, MW-127, MW-128, MW-129, MW-132, MW-133, MW-137, MW-138, KWB-2R, KWB-4, KWB-5, KWB-6, KWB-8, KWB-10R, RW-1, RW-2, RW-5R, RW-6, RW-8, RW-13R, RW-14R, RW-15C, RW-19, RW-20A, RW-20B, RW-22, and TEL-3; and
- Second semiannual event: MW-48, MW-58, MW-65, MW-67, MW-85, MW-91, MW-92, MW-94, MW-99, MW-111, MW-112, MW-127, MW-128, MW-131, MW-132, MW-133, MW-137, MW-137A, MW-138, MW-138A, NCL-34A, KWB-2R, KWB-4, KWB-5, KWB-6, KWB-10R, TEL-1, and TEL-2.

Groundwater was purged and sampled from monitoring and recovery wells with a peristaltic pump and dedicated tubing or a dedicated bladder pump using low-flow methods in accordance with the NMED Hazardous Waste Bureau (HWB) Position Paper “Use of Low-Flow and Other Non-Traditional Sampling Techniques for Compliance Groundwater Monitoring” (NMED 2001). Groundwater was purged and sampled from water supply wells by attaching a decontaminated or dedicated hose barb to the available spigot. The spigot was located at a point before the water supply is introduced into any storage tanks or treatment units. The method by which each well was purged and sampled is provided in Table 2.

A multi-parameter water quality meter with flow-through cell and hand-held turbidity meter were used during the purging process of monitoring and recovery wells to monitor for field water quality parameters (pH, temperature, specific conductance, oxidation-reduction potential [ORP], dissolved oxygen [DO], and turbidity) and demonstrate stabilization. Water quality parameters were recorded approximately every three minutes during purging on a groundwater sampling form. The water quality parameters, depth to water (in non-supply wells only), and a qualitative description of the water quality (e.g., turbidity, sheen, odor) were also recorded during the purging process. Copies of the groundwater sampling forms are provided in Appendix B.

Water supply wells were purged and sampled from a sampling point (i.e., tap or spigot) located at or near the well head or pump house and before the water supply is introduced into any storage tank or treatment unit. The wells were purged at the sample point to remove any standing water from the well casing and surface piping. Grab readings of geochemical parameters including pH, temperature, conductivity, ORP, dissolved oxygen, and turbidity were also collected during the purging process.

The purging process was considered complete and groundwater sampling commenced when at least four of the purge parameters had stabilized. The specified stabilization criteria was +/- 0.2 standard unit for pH, +/- 0.2 degree Celsius for temperature, +/- 0.2 milligrams per liter (mg/L) for DO, +/- 0.02 Siemen per meter for specific conductance, and +/- 20 millivolts for ORP. The final stabilized water quality parameters measured at each well are summarized in Table 2. In addition, other observations of relative water quality (color and odor) are included in Table 2.

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Groundwater samples were collected directly from the dedicated tubing or water supply well sampling point into laboratory-provided sample containers. Care was taken to not overflow the containers and potentially remove preservatives from pre-preserved containers. Samples that were to be analyzed for dissolved metals were field-filtered by attaching a disposable 0.45 micron filter to the tubing and directing the flow through the filter into the sample container.

Sample labels were placed on each container and included the well name, sample name, date and time, sampler's initials, and analytical method(s) to be performed. Glass sample containers were placed in padded packing sleeves to prevent breakage. All samples were placed on wet ice in a shipping container. All groundwater samples collected during the 2020 semiannual events were submitted to Pace Analytical National Center for Testing & Innovation in Mount Juliet, Tennessee under appropriate chain-of-custody documentation for laboratory analyses specified in the 2019 FWGMWP. Shipping containers were sent overnight to the laboratory via Federal Express. Copies of the chain-of- custody forms are included in Appendix C with the analytical data reports.

2.4 Equipment Decontamination Procedures

The oil-water interface probes used to gauge the PSH and water levels were the only equipment that was placed within multiple wells. This equipment was decontaminated between uses at each well to prevent cross-contamination between wells. The probe and the attached measuring tape were washed in a mixture of water and non-phosphate detergent (Alconox™). The equipment was then rinsed with water. Distilled water purchased from a local store was used for washing and rinsing the equipment.

The flow-through cell and probes of the water quality meters used for low-flow purging was also decontaminated between uses at each well. Decontamination of this equipment included submersing the flow-through cell in a mixture of water and non-phosphate detergent (Alconox™), washing the cell with a soft brush, submersing the probe end of the meters in the soapy water mixture, and brushing the end of the probe with a soft brush. The equipment was then rinsed with distilled water purchased from a local store.

Dedicated tubing was used for sample collection from each well; therefore, decontamination of sample collection tubing was not required. The dedicated tubing was left in the well between sampling events, with the upper portion coiled to ensure that the lower portion did not remain in the water column. At the beginning of each sampling event, the tubing was inspected and replaced if staining or mold was observed.

2.5 Investigation-Derived Waste

All purge water and decontamination liquids were temporarily contained. The liquids were disposed daily in the refinery process wastewater system upstream of the oil/water separator. The volumes of purge water collected at each well were recorded on the HMI groundwater sampling forms and copies of these forms are provided in Appendix B.

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Solid wastes generated during sampling activities included disposable gloves, paper towels, plastic bags, and tubing. All solid waste was contained in plastic bags and placed in the refinery trash receptacles for later disposal.

2.6 Exceptions to Groundwater Monitoring Work Plan

The following exceptions to the 2019 FWGMWP occurred during the first semiannual monitoring event conducted from June 16 to June 18, 2020:

- The sampling event occurred in June 2020 instead of April 2020 due to the public health emergency and travel restrictions associated with the coronavirus disease of 2019 (COVID-19) pandemic.
- Wells KWB-3AR and KWB-9 were not gauged or sampled, and well RA-1227 was not sampled because access was denied by the landowner. The landowner has not granted HFNR access to these wells since 2011, but HFNR continues to pursue access.
- Well RW-11 was not sampled because it was dry.
- Well MW-53 was not gauged or sampled because it could not be located (likely destroyed during road construction/landscaping activities).

The following exception to the 2019 FWGMWP occurred during the second semiannual monitoring event conducted from October 6 to October 7, 2020:

- Wells KWB-3AR was not gauged or sampled and KWB-9 was not gauged because access was denied by the landowner. The landowner has not granted HFNR access to these wells since 2011.
- Replacement well MW-53R was gauged and sampled instead of MW-53.
- Well RW-20A was not gauged because a pump installed in the well prevented measurement.
- Well MW-97 was not gauged or sampled because it could not be located due to construction in the area.

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3.0 Regulatory Criteria

Regulatory standards or screening levels used to evaluate the data collected for the groundwater monitoring program are based on the presumption that the shallow groundwater might be used as a source of drinking water. Use of these screening levels are conservative because the shallow groundwater is not a documented source of drinking water. The Critical Groundwater Screening Level (CGWSL) used for each constituent of concern (COC) is the lower value of either the New Mexico Water Quality Control Commission (WQCC) standard from 20.6.2.3103 NMAC (last updated in December 2018) or the Maximum Contaminant Level (MCL) from the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) (USEPA 2020). For COCs where neither a WQCC standard or MCL exists, the CGWSL is the NMED Groundwater Screening Level listed in the NMED Risk Assessment Guidance for Investigations and Remediation updated in February 2019 and revised in June 2019 (NMED 2019c). If no NMED Groundwater Screening Level value is available, then the CGWSL is the USEPA Tap Water RSL value (USEPA 2020).

Available regulatory screening levels and the applicable CGWSL for each COC is presented in Table 3. The CGWSL for each COC is also provided for comparison in the analytical data summary tables, as discussed later in this report.

The 2020 TPH diesel range organics (DRO) groundwater data, in all areas except the EPs, was screened against the groundwater screening level for “unknown oil” included in Table 6-4 of the 2019 guidance document (NMED 2019c). The 2020 TPH DRO groundwater data for the EPs was screened against the groundwater screening level for “Diesel #2/New Crankcase Oil” in Table 6-4 of the 2019 NMED guidance document, consistent with the approved investigation report for the EPs (Arcadis 2015a). The 2020 TPH gasoline range organics (GRO) groundwater data was screened against the screening value for “gasoline,” established in 2019, on Table 6-4 of the 2019 NMED guidance document (NMED 2019c).

An evaluation of background (or baseline) groundwater quality was conducted between July 2014 and June 2015 for the purpose of determining the concentrations of COCs that may be present hydraulically up- and cross-gradient of refinery operations. The evaluation was performed according to an approved work plan (Arcadis 2014) and a report summarizing the evaluation was submitted to NMED and OCD in September 2015 (Arcadis 2015b). The background groundwater investigation included statistical evaluation of COCs and calculation of upper tolerance limits, where a statistically valid set of data was available. HFNR requested to use the background groundwater evaluation to develop alternative screening standards for specific COCs where the background data set demonstrates that the COCs are present above the WQCC standards or MCLs. Alternative standards development is pending further discussion and approval from OCD and NMED and so they are not included in this report. However, it should be noted that concentrations of manganese, chloride, fluoride, sulfate, nitrate/nitrite, and TDS that exceed the screening levels using the WQCC standards or USEPA MCLs may not exceed up-gradient concentrations.

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4.0 Monitoring Results

Results of the 2020 semiannual groundwater monitoring events are summarized in this section.

4.1 Groundwater Gauging Results

Well gauging was conducted from June 15 and 16, 2020, and on October 6, 2020. Depth to water measurements, depth to PSH (if present) measurements, and groundwater elevations are presented in Table 1. For wells with PSH present, the groundwater elevation was corrected for the presence of PSH (with a specific gravity of 0.8). Groundwater potentiometric surface maps based on the 2020 semiannual gauging results for the shallow saturated zone and the valley fill zone are presented in Figures 4 through 7.

The 2020 gauging results indicate groundwater predominantly flows eastward beneath the refinery towards the Pecos River, with localized variations in both the shallow saturated zone and the valley fill zone. The groundwater flow direction beneath the EPs is generally to the southeast. The 2020 gauging results are consistent with historical results. Groundwater mounding was observed around wells MW-114 and MW-115 during both semiannual gauging events, despite cessation of discharge of RO reject water to the RO Reject Fields in January 2019. Localized groundwater sinks were observed around various recovery wells during both semiannual gauging events due to active groundwater pumping at those recovery wells.

4.2 Phase-Separated Hydrocarbons

The presence of PSH and measured apparent in-well PSH thicknesses are shown on Figures 8 and 9 for the 2020 first and second semiannual events, respectively. Consistent with previous results, PSH is present in four general areas at the refinery: isolated wells in the north portion of the refinery (North Refinery Area, NCL, and the TEL Surface Impoundment), isolated wells in the southwestern portion of the refinery (South Refinery Area), in a segmented area across multiple wells in the southeastern portion of the refinery (South Refinery Area) extending east through the field owned by HFNR east of the refinery (Field East of Refinery) and Bolton Road, and one isolated area on the western end of the EPs near the former discharge point into Pond 1.

Plots presenting apparent in-well PSH thicknesses and groundwater elevations over time for wells that have historically contained measurable PSH are provided in Appendix D. PSH thicknesses across all areas of interest are generally stable to declining over time. PSH thicknesses generally appear to be inversely affected by fluctuations in groundwater elevations and any recent increases in PSH thicknesses are attributed to reductions in groundwater elevations. Groundwater elevations generally decreased across the facility over the last eight sampling events (April 2017, October 2017, April 2018, October 2018, April 2019, October 2019, June 2020, and October 2020). Groundwater elevation in many wells was measured at a historical minimum in 2020. The reduction in groundwater elevations from 2017 through 2020 is consistent with the occurrence of drought conditions across New Mexico during this time. Apparent in-well PSH thickness fluctuates with the water table because it relates to the

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hydrogeologic conditions and characteristics of the PSH and soil and is therefore a poor indicator of PSH mobility and recoverability.

The presence of PSH within each area of interest is discussed in the following subsections. PSH recovery activities and results are provided in Section 6.0.

4.2.1 North Colony Landfarm – PSH Gauging Results

PSH was detected in NCL well NCL-34A in October 2020 at an estimated thickness of greater than 4.25 feet – the PSH thickness could not be measured because groundwater was not measured above the total depth of the well. PSH was last measured in NCL-34A from March 2011 through March 2013 (at a historical maximum of 5.87 feet in September 2011). PSH presence and thickness in this well directly correlates with reductions in the groundwater elevation observed during these times. The October 2020 groundwater elevation (i.e., below the well total depth) is the historical minimum observed in this well.

4.2.2 Tetra Ethyl Lead Surface Impoundment – PSH Gauging Results

PSH was measured in well TEL-3 at a thickness of 0.06 feet in June 2020. In October 2020, PSH was measured in wells TEL-1 and TEL-2 at thicknesses of 0.66 and 0.38 feet, respectively. PSH was last measured in TEL-1 in 2010. PSH has intermittently been present in TEL-2 since 2007 and TEL-3 since 2008. PSH presence in these wells correlates with reductions in groundwater elevations during those corresponding monitoring periods. The PSH thicknesses measured in in TEL-1, TEL-2, and TEL-3 in 2020 are historical maximums and groundwater elevations have decreased over 11 feet in these wells since at least April 2017 to historical minimums in October 2020.

4.2.3 Evaporation Ponds – PSH Gauging Results

PSH was measured in EP well MW-85 at thicknesses of 0.13 feet in June 2020 and 0.57 feet in October 2020. PSH was historically present in EP well MW-86 but was not measured in MW-86 during either 2020 semiannual event. These wells are located near the original discharge point in EP 1 (Pond 1). PSH thicknesses in MW-85 have overall decreased since 2012, despite PSH thickness fluctuations between the gauging events attributable to fluctuations in groundwater elevations.

4.2.4 Three Mile Ditch – PSH Gauging Results

No measurable PSH was present in any wells along the TMD during either 2020 semiannual event.

4.2.5 North Refinery Area – PSH Gauging Results

PSH was measured in wells MW-67, MW-92, MW-94, MW-97, MW-137, MW-138, RW-1, RW-2, and RW-8 in June 2020 at thicknesses ranging from 0.05 feet in MW-67 to 3.87 feet in MW-94. In October 2020, PSH was measured in MW-67, MW-91, MW-92, MW-93, MW-94, MW-137, MW-137A, MW-138, MW-138A, RW-1, RW-2, RW-7, and RW-8 at thicknesses ranging from

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0.04 feet in MW-91 and MW-93, to 5.51 feet in MW-94. PSH thicknesses have generally decreased over time in these wells, except in wells MW-92, MW-93, MW-137, and MW-138 RW-1, and RW-8, which reached historical maximums in 2020. These increased thicknesses are attributed to decreasing groundwater elevations and are not indicative of a new release or PSH migration, as follows:

- PSH thicknesses in wells MW-92, MW-137, and MW-138 increased over each monitoring event conducted since April 2019 to historical maximums of 3.01 feet, 1.56 feet, and 3.07 feet, respectively, in October 2020. Groundwater elevations measured in these wells decreased 6.15 feet, 9.52 feet, and 8.67 feet, respectively, from historical maximums in October 2015 to October 2020.
- PSH was detected for the first time at a measurable thickness (0.04 feet) in MW-93 in October 2020. The presence of measurable PSH in MW-93 in October 2020 is attributed to decreasing groundwater elevations and is not indicative of a new release or PSH migration. Groundwater elevations measured at this well decreased 6.94 feet from a historical maximum in October 2015 to October 2020.
- PSH thicknesses in wells RW-1 and RW-8 increased in 2020 to historical maximums in June 2020 and October 2020, respectively. PSH was detected at a historical maximum of 0.71 feet in RW-1 in June 2020 and 3.55 feet in RW-8 in October 2020. Groundwater elevations measured at these wells decreased 9.78 feet and 10.54 feet, respectively, from historical maximums in October 2015 to October 2020. Active pumping in these wells also contributed to the observed decreases in groundwater elevation and increases in apparent thickness in these wells.

PSH and groundwater are routinely removed from this plume by automated pumping from RW-1R, RW-2R, RW-7R, and/or RW-8R. Measurable volumes of PSH (as measured by the automated recovery system) were recovered from all these recovery wells (see Section 6.0 and Table 5 for details). The recovered PSH is pumped to Tank 49 within the refinery and then to crude tanks for processing.

4.2.6 South Refinery Area – PSH Gauging Results

PSH was measured in wells KWB-2R, KWB-4, KWB-5, KWB-6, MW-48, MW-64, MW-65, MW-107, RW-5R, RW-6, RW-15C, and RW-19 in June 2020 at thicknesses ranging from 0.01 feet in MW-64 to 2.56 feet in KWB-6. In October 2020, PSH was measured in wells KWB-2R, KWB-4, KWB-5, KWB-6, MW-48, MW-65, MW-99, MW-107, RW-5R, RW-6, RW-15C, and RW-19 at thicknesses ranging from 0.04 feet at RW-15C to 3.74 feet at RW-6.

PSH thicknesses have generally decreased over time in most of these wells, except for recent increases in wells KWB-4, KWB-5, KWB-6, MW-99, MW-107, and RW-6. These increased thicknesses are attributed to recent reductions in groundwater elevations or the combined influence of the active recovery system and are not indicative of a new release or PSH migration, as follows:

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- PSH thicknesses in KWB-4. KWB-5, and KWB-6 have overall increased during monitoring events conducted since April 2017, April 2019, and April 2018, respectively. The PSH thicknesses measured in these wells in 2020 are less than the historical maximums. The recent increase in PSH thicknesses in these wells is attributed to reductions in groundwater over the same time.
- Measurable PSH was detected in MW-99 in October 2020 for the first time since March 2014. The October 2020 PSH measurement was a historical maximum of 1.06 feet. Groundwater elevations in MW-99 decreased 6.76 feet from a historical maximum in October 2015 to a historical minimum in October 2020.
- PSH was detected for the first time in MW-107 at a measurable thickness of 1.92 feet in June 2020, and again at a thickness of 1.33 in October 2020. The presence of measurable PSH in MW-107 in 2020 is attributed to decreasing groundwater elevations and is not indicative of a new release or PSH migration. Groundwater elevations in this well have decreased significantly from a historical maximum in October 2015 to a historical minimum in October 2020, as shown in the PSH thickness plots provided in Appendix D. Groundwater elevations decreased 8.02 feet from October 2015 to June 2020; and 8.83 feet from October 2015 to October 2020.
- PSH thicknesses in recovery well RW-6 have overall increased since April 2019, with measured thicknesses of 2.52 feet and 3.74 feet in June 2020 and October 2020, respectively. The 2020 PSH thicknesses were less than the historical maximum of 3.83 feet measured in October 2019. Groundwater elevations in RW-6 have decreased 5.57 feet between a historical maximum in October 2016 to October 2020. The groundwater elevation measured in June 2020 was a historical minimum, but this measurement was likely affected by pumping in the well prior to the gauging event.

PSH and groundwater is routinely removed from this plume by automated pumping from RW-4R, RW-5R, RW-6R, RW-15 (RW-15 recovery trench wells A, B, D, and/or E), and/or RW-19. Measurable volumes of PSH (as measured by the automated recovery system) were recovered from recovery wells RW-5R and RW-6R in 2020 (see Section 6.0 and Table 5 for details). The recovered PSH is pumped to Tank 49 within the refinery and then to crude tanks for processing.

4.2.7 Field East of Refinery – PSH Gauging Results

PSH was measured in wells KWB-8, KWB-10R, MW-58, MW-112, MW-127, MW-128, MW-129, MW-132, MW-133, RW-13R, RW-14R, RW-20A, RW-20B, and RW-22 in June 2020, with thicknesses ranging from 0.09 feet in KWB-8 to 6.26 feet in RW-14R. In October 2020, PSH was measured in wells KWB-10R, MW-58, MW-111, MW-112, MW-127, MW-128, MW-129, MW-131, MW-132, MW-133, RW-13R, RW-14R, RW-20B, and RW-22. PSH was likely present in RW-20A in October 2020, but fluid levels in this recovery well could not be measured because they were below the recovery pump within this recovery well. PSH thicknesses in October 2020 ranged from 0.11 feet in RW-13R to 2.99 feet in KWB-10R.

PSH thicknesses have generally decreased over time in most of these wells, except for recent increases in wells KWB-10R, MW-58, MW-111, MW-127, MW-128, MW-129, MW-131, and RW-

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22. These increases are attributed to recent reductions in groundwater elevations or the combined influence of the active recovery system, and are not indicative of a new release or PSH migration, as follows:

- PSH thicknesses have increased during each monitoring event conducted since October 2018 in well KWB-10R, April 2019 in wells MW-127 and MW-128, and October 2019 in wells MW-58 and MW-129. The October 2020 PSH measurements in these wells are historical maximums: 2.99 feet in KWB-10R, 0.95 feet in MW-58, 1.92 feet in MW-127, 2.14 feet in MW-128, and 1.09 feet in MW-129. Groundwater elevations in these wells have decreased between 5.37 feet in MW-129 and 9.43 feet in MW-127from historical maximums in November 2014 to historical minimums in October 2020.
- PSH was detected for the first time in MW-111 at a measurable thickness (0.25 feet) in October 2020. The presence of measurable PSH in MW-111 in October 2020 is attributed to decreasing groundwater elevations and is not indicative of a new release or PSH migration. Groundwater elevations measured at this well decreased 7.55 feet from a historical maximum in November 2014 to the historical minimum in October 2020.
- PSH thicknesses in MW-131 increased to a historical maximum of 1.63 feet in October 2020. Groundwater elevations in MW-131 decreased 7.32 feet from a historical maximum in November 2014 to a historical minimum in October 2020.
- PSH thicknesses increased in recovery well RW-22 to a historical maximum of 5.69 feet in June 2020 but decreased to 0.88 feet in October 2020. Groundwater elevations and PSH thicknesses in this well have historically fluctuated between gauging events and is affected by recovery system pumping. Despite seasonal fluctuations, groundwater elevations in RW-22 have decreased 8.35 feet from a historical maximum in November 2014 to October 2020.

PSH thicknesses fluctuate in the wells with active PSH recovery and wells located nearby. PSH and groundwater is routinely removed from this plume by automated pumping from RW-12R, RW-13R, RW-14R, RW-20, and/or RW-22. Measurable volumes of PSH (as measured by the automated recovery system) were recovered from wells RW-13R, RW-14R, and RW-22 in 2020. The recovered PSH is pumped to Tank 49 within the refinery and then to crude tanks for processing.

4.2.8 Cross-Gradient and Up-Gradient Areas – PSH Gauging Results

No measurable PSH was present in any wells located up-gradient or cross-gradient of the refinery during either 2020 semiannual event. The up-gradient wells are only gauged on an annual basis.

4.2.9 RO Reject Fields – PSH Gauging Results

No measurable PSH was present in any wells located within the North or South RO Reject Fields during either 2020 semiannual event.

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5.0 Chemical Analytical Data

The chemical laboratory analyses and results of groundwater samples collected at the refinery in 2020 are summarized in this section.

5.1 Sample Laboratory Analyses

Groundwater samples collected during the 2020 semiannual sampling events were submitted for laboratory analysis of one or more of the following COCs by the associated analytical methods in accordance with the 2019 FWGMWP:

- TPH DRO by Method 8015 Modified
- TPH GRO by Method 8015 Modified
- Volatile organic compounds (VOCs) by Method 8260
- Metals by Methods 6010/6020 or 7470 (arsenic, barium, chromium, iron, lead, manganese, and selenium in all wells that were analyzed for metals; boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium were additionally analyzed in select wells)
  - Total metals were analyzed during both the first and second semiannual events
  - Dissolved metals were analyzed during the first semiannual event (for the same list of metals as the total metal list)
- Cyanide by Method 4500
- Major cations and anions by Methods 6020 or 300 (calcium, chloride, fluoride, potassium, sodium, and sulfate)
- Nitrates/nitrites (as nitrogen) by Method 300
- Total dissolved solids (TDS) by Method 2540

The specific analytical suite for each groundwater sample was in accordance with Table 1 of the approved 2019 FWGMWP. Laboratory analytical reports are provided in Appendix C.

In accordance with the SWMU/AOC Group 3 Rev 2 transmittal letter dated December 28, 2018, and NMED's subsequent response letter dated March 22, 2019, groundwater samples collected from select wells in the vicinity of solid waste management units (SWMUs) 20 and 22 (North Refinery wells) were analyzed for semi-volatile organic chemicals (SVOCs) by EPA Method 8270. One well (KWB-6) with historical detections of 1,2-dichloroethane was scheduled be analyzed for EDB by EPA Method 8011; however, PSH at a thickness ≥0.03 feet was measured in this well during both 2020 semiannual events and no groundwater samples were collected.

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5.2 Data Validation

Laboratory analytical results were reviewed and validated following the guidelines of the PCC Permit. The data validation and a discussion of any data quality exceptions are provided in Appendix E. Data qualifier flags were added to the data based on the data validation results and are summarized in tabulated form in Appendix C.

Although some data quality exceptions were noted, the analytical results are generally usable for the intended purpose.

5.3 Laboratory Analytical Results

Laboratory analytical results of all wells sampled in 2020, and during at least the three previous sampling events, are summarized in Tables 4A through 4D, as follows:

- Table 4A – GRO, DRO, and select VOCs (VOCs detected above the CGWSL in more than one well in 2020)
- Table 4B – Total Metals
- Table 4C – Water quality parameters (TDS, nitrate/nitrite, major cations, major anions) and Cyanide
- Table 4D – SVOCs (detected in at least one well in either 2019 or 2020)

Analytical results of the 2020 monitoring events and the three prior sampling events are included in the tables as required by the PCC Permit. The timeframe required to provide data for the three prior sampling events varies by well because wells are sampled semiannually, annually, or biennially. Wells that are sampled on a biennial basis are sampled during odd calendar years and therefore were not sampled during April 2020. For consistency of the timeframe summarized in the analytical results tables, no data prior to 2013 is included for the wells that are sampled biennially or were not sampled during this timeframe for whatever reason (e.g., PSH present at a thickness ≥0.03 feet, lack of well access, etc.). Analytical results in Tables 4A through 4D are organized by the major area of interest in which each well is located. The applicable CGWSL is provided at the top of each data table and exceedances of the CGWSL are highlighted in yellow. Analytical results of all detected COCs are summarized in tables organized by well in numeric order that are included in Appendix C.

Plots of historical concentrations of target COCs are provided in Appendix D for wells with historical exceedances of CGWSLs. These plots are organized by well within major areas of interest and include concentration plots for the following target COCs: GRO, DRO, benzene, ethylbenzene, toluene, total xylenes, methyl tert-butyl ether (MTBE), naphthalene, and arsenic.

Figures 10 through 19 present the extent of the CGWSL exceedance areas of the following target COCs for both the first and second semiannual 2020 sampling events: DRO, arsenic, benzene, naphthalene, and MTBE.

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Figures 20 through 29 depict the extent of CGWSL exceedance areas of the following water quality parameters for both the first and second semiannual 2020 events in accordance with the Discharge Permit requirements: chloride, fluoride, sulfate, nitrate/nitrite, and TDS.

The 2020 analytical results in each major area of interest are summarized in the following subsections.

5.3.1 North Colony Landfarm – Analytical Results

Groundwater monitoring is ongoing beneath and near the closed NCL. Groundwater samples were collected from the NCL wells listed below during the 2020 semiannual sampling events:

- First Semiannual Event (12 wells): MW-18, MW-45, MW-54A, MW-55, MW-56, MW-108, NCL-31, NCL-32, NCL-33, NCL-34A, NCL-44, and NCL-49.
- Second Semiannual Event (10 wells): MW-45, MW-53R, MW-54A, MW-55, MW-108, NCL-31, NCL-32, NCL-33, NCL-44, and NCL-49.

Groundwater samples collected from these NCL area wells were analyzed for DRO, VOCs, the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium), and water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite). In addition, the groundwater sample collected from MW-55 was analyzed for GRO and groundwater samples from MW-18, MW-45, and MW-55 were analyzed for cyanide and the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium).

Analytical results of groundwater samples collected from wells located in and near the NCL in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, NCL

In 2020, groundwater samples were collected from wells located in and near the NCL for analysis of TPH DRO and GRO. TPH results that exceeded their respective CGWSL in NCL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
NCL	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	12	12	7.21 (NCL-33)
	TPH-GRO	**0.0101**	1	1	0.140 (MW-55)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	10	9	8.54 (NCL-33)
	TPH-GRO	**0.0101**	1	1	0.635 (MW-55)

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As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in NCL area wells sampled during both 2020 semiannual events.

As shown in the COC concentration plots included in Appendix D, DRO concentrations in NCL wells MW-18, MW-45, MW-53, MW-54A, MW-56, MW-108, NCL-31, NCL-32, NCL-33, NCL-34A, and NCL-44 have overall increased since 2011, but have exhibited a stable to decreasing trend over at least the four most recent sampling events. DRO concentrations in these wells will be reviewed again in 2021.

DRO concentrations at well MW-55 overall increased since 2011 but were stable from October 2018 through June 2020. DRO concentrations at MW-55 increased from 0.95 mg/L in June 2020 to 1.34 mg/L in October 2020, which is the historical maximum for this well. DRO concentrations in this well will be reviewed again in 2021.

GRO concentrations in MW-55 have exhibited an overall increasing trend since April 2017, with a historical maximum concentration of 0.635 mg/L reported in October 2020. GRO concentrations in this well will be reviewed again in 2021.

Volatile Organic Compounds, NCL

In 2020, groundwater samples were collected from wells located in and near the NCL for analysis of VOCs. VOC results that exceeded their respective CGWSL in NCL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
NCL	*First Semiannual Event (June 2020)*				
	Benzene	**0.00500**	12	2	1.10 (NCL-34A)
	MTBE	**0.100**	12	1	0.228 (MW-55)
	Second Semiannual Event (October 2020)				
	Benzene	**0.00500**	10	1	0.100 (MW-108)
	MTBE	**0.100**	10	1	0.299 (MW-55)

As summarized above and highlighted in Table 4A, benzene and MTBE were detected in exceedance of their respective CGWSLs in NCL area wells during at least one 2020 sampling event. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 VOC results in groundwater beneath and near the NCL were generally consistent with historical results, with exceptions listed below. As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in wells located in and near the NCL are overall stable to declining, except MTBE in wells MW-45 and MW-55 as discussed below. MTBE concentrations in these wells will be reviewed again in 2021.

- MTBE concentrations in MW-45 have exhibited an increasing trend since April 2016 but remain well below the CGWSL of 0.100 mg/L. MTBE concentrations in MW-45 increased to 0.0124 mg/L in October 2020, which is the historical maximum for this well.

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- MTBE concentrations in MW-55 have exhibited an increasing trend since April 2015 and have exceeded the CGWSL since the second 2019 semiannual event. MTBE concentrations increased from 0.106 mg/L in October 2019 to 0.228 mg/L in June 2020 to 0.299 mg/L, which is the historical maximum for this well.

Wells MW-45 and MW-55 are located approximately 1,480 feet and 550 feet, respectively, down-gradient of the NCL. MTBE concentrations in wells located in the immediate vicinity of the NCL remain stable and below the CGWSL, including wells NCL-33 and NCL-34A which are located on the down-gradient boundary of the NCL. Therefore, the presence of MTBE in wells MW-45 and MW-55 is not associated with the NCL.

Total Metals, NCL

Groundwater samples were collected from wells located in and near the NCL for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium). In addition, groundwater samples collected from wells MW-18, MW-45, and MW-55 were analyzed for the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium). Total metal results that exceeded their respective CGWSL in NCL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
NCL	*First Semiannual Event (June 2020)*				
	Arsenic	**0.0100**	12	2	0.0305 (NCL-44)
	Boron	**0.750**	3	2	2.52 (MW-18)
	Iron	**1.00**	12	4	3.52 (NCL-33)
	Manganese	**0.200**	12	6	2.24 (NCL-31)
	Uranium	**0.0300**	3	2	0.0549 (MW-55)
	Second Semiannual Event (October 2020)				
	Arsenic	**0.0100**	10	2	0.0211 (NCL-44)
	Iron	**1.00**	10	2	4.03 (NCL-33)
	Manganese	**0.200**	10	6	2.15 (NCL-31)
	Uranium	**0.0300**	2	1	0.0364 (MW-55)

As summarized above and highlighted in Table 4B, arsenic, boron, iron, manganese, and uranium were detected in exceedance of their respective CGWSLs in NCL wells during at least one 2020 sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The total metal results in groundwater beneath and near the NCL were generally consistent with or less than historical results, except uranium in MW-18. Uranium concentrations in MW-18 increased from 0.0283 mg/L in April 2019 to 0.0451 mg/L in June 2020. Uranium has fluctuated above and below the CGWSL of 0.0300 mg/L in this well over time. Concentrations of target COC arsenic in wells located in and near the NCL are overall stable to declining, as shown in the COC concentration plots included in Appendix D.

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Cyanide, NCL

Groundwater samples collected from wells MW-18 during the first 2020 semiannual event and MW-45 and MW-55 during both 2020 semiannual events were analyzed for cyanide. Cyanide was detected above the method detection limit, at a J-flagged (estimated concentration) of 0.00225 J mg/L, in well MW-45 in June 2020, but the concentration was below the method detection limit in October 2020. Cyanide was not detected above the above the CGWSL of 0.200 mg/L in groundwater samples collected from any NCL well during the June 2020 or October 2020 sampling events.

Water Quality Parameters, NCL

In 2020, groundwater samples were collected from wells located in and near the NCL for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]).

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from various wells in and near the NCL, as highlighted in Table 4C. The reported concentrations of these constituents generally exhibit an overall stable trend across the NCL, with some seasonal fluctuations between the first and second semiannual events. Nitrate/nitrite concentrations in NCL-49 have increased over the four most recent sampling events from 3.59 mg/L in October 2018 to 10.1 mg/L in October 2020, which is slightly above the CGWSL of 10.0 mg/L. Nitrate/nitrite concentrations in this well will be reviewed again in 2021.

5.3.2 Tetra Ethyl Lead Surface Impoundment – Analytical Results

Groundwater monitoring beneath the closed TEL surface impoundment is ongoing. Groundwater samples were collected from the following wells during 2020 semiannual events:

- First Semiannual Event (4 wells): MW-49, TEL-1, TEL-2, and TEL-4
- Second Semiannual Event (3 wells): MW-49, TEL-3, and TEL-4.

Groundwater samples collected from these TEL area wells were analyzed for GRO, DRO, VOCs, the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium), and water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite). In addition, groundwater samples collected from MW-49 were analyzed for the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium) and cyanide.

Analytical results of groundwater samples collected from TEL wells in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

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Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, TEL

In 2020, groundwater samples were collected from wells located in and near the TEL for analysis of TPH DRO and GRO. TPH results that exceeded their respective CGWSL in TEL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TEL	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	4	4	8.16 (TEL-2)
	TPH-GRO	**0.0101**	4	4	5.45 (MW-49)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	3	3	6.36 (TEL-3)
	TPH-GRO	**0.0101**	3	3	5.05 (MW-49)

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in all TEL area wells sampled during both 2020 semiannual events.

DRO and GRO concentrations in all TEL area wells have exhibited a stable trend over at least the four most recent sampling events with occasional fluctuations, as shown in the COC concentration plots included in Appendix D.

Volatile Organic Compounds, TEL

In 2020, groundwater samples were collected from wells located in and near the TEL for analysis of VOCs. VOC results that exceeded their respective CGWSL in TEL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TEL	*First Semiannual Event (June 2020)*				
	Benzene	**0.00500**	4	3	0.600 (MW-49)
	1,2,4-TMB	**0.0560**	4	1	0.115 (MW-49)
	MTBE	**0.100**	4	1	0.148 (MW-49)
	Second Semiannual Event (October 2020)				
	Benzene	**0.00500**	3	2	0.404 (MW-49)
	1,2,4-TMB	**0.0560**	3	2	0.0763 (MW-49)
	MTBE	**0.100**	3	1	0.196 (MW-49)

As summarized above and highlighted in Table 4A, benzene, 1,2,4-trimethylbenzene (1,2,4-TMB), and MTBE were detected in exceedance of their respective CGWSLs in TEL wells during both 2020 sampling events. No other VOC was detected above its respective CGWSL during either semiannual event.

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The 2020 VOC results of groundwater in TEL area wells were consistent with historical results. As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in TEL area wells exhibited stable trends over time despite occasional fluctuations, with the following exceptions:

- MTBE concentrations have overall increased in MW-49 since 2013 after declining between 2009 and 2013. MTBE in this well appeared to be stabilizing between April 2009 and June 2020 (ranging from 0.138 mg/L to 0.160 mg/L) at levels similar to the 2013 maximum (0.160 mg/L), but increased slightly to a historical maximum of 0.196 mg/L in October 2020. MTBE concentrations in MW-49 will be reviewed again in 2021.
- Total xylenes concentrations in TEL-3 increased from 0.0142 mg/L in October 2019 to 0.0505 mg/L in October 2020, which is the historical maximum in this well. However, concentrations in this well remain below the total xylenes CGWSL of 0.620 mg/L. Total xylenes concentrations in this well have fluctuated over time and will be review again in 2021.

Total Metals, TEL

Groundwater samples were collected from wells located in and near the TEL for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium). In addition, groundwater sample collected from MW-49 were analyzed for the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium). Total metal results that exceeded their respective CGWSL in TEL wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TEL	*First Semiannual Event (June 2020)*				
	Arsenic	**0.0100**	4	1	0.0120 (TEL-1)
	Chromium	**0.0500**	4	1	0.125 (TEL-4)
	Manganese	**0.200**	4	1	1.19 (TEL-4 FD)
	Second Semiannual Event (October 2020)				
	Chromium	**0.0500**	3	1	0.106 (TEL-4)
	Manganese	**0.200**	3	2	1.24 V (TEL-4)

FD: Field Duplicate
V: The sample concentration is too high to evaluate accurate spike recoveries.

As summarized above and highlighted in Table 4B, chromium, and manganese were detected in exceedance of their respective CGWSLs in TEL wells during both 2020 sampling events. Arsenic was detected above its CGWSL in one TEL well during the first 2020 semiannual sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 total metal results in TEL wells were generally consistent with historical results. Groundwater concentrations of target COC arsenic in TEL area wells are overall stable to declining, despite occasional fluctuations, as shown in the COC concentration plots included in Appendix D. Arsenic concentrations in TEL-1 overall increased since 2015, but concentrations

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remain below historical maximum concentrations for this well, and concentrations have been stable over the six most recent sampling events.

Cyanide, TEL

Groundwater samples collected from MW-49 during both 2020 semiannual events were analyzed for cyanide. In October 2020, cyanide was detected below the CGWSL of 0.200 mg/L, at an estimated concentration of 0.0121 J mg/L, for the first time since at least April 2018. Concentrations of cyanide will be reviewed again in 2021.

Water Quality Parameters, TEL

Chloride, fluoride, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from various TEL area wells, as highlighted in Table 4C. The reported concentrations of these constituents in 2020 were overall consistent with historical results. Nitrate/nitrite was not detected above the CGWSL in any TEL area well, which is consistent with historical results. No CGWSLs are applicable for calcium, potassium, or sodium. Analytical results of these analytes in all TEL area wells were consistent with historical results.

5.3.3 Evaporation Ponds Analytical – Results

Groundwater monitoring is ongoing beneath the inactive EPs. Analytical results of groundwater samples collected from EP wells in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, EPs

In 2020, groundwater samples were collected from the following EP wells during each semiannual event for analysis of DRO and GRO, unless noted otherwise:

- First Semiannual Event (42 wells): MW-1R (DRO only), MW-2A, MW-3, MW-4A, MW-5A, MW-6A, MW-7A, MW-10, MW-11A, MW-15, MW-18A (DRO only), MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.
- Second Semiannual Event (31 wells): MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-18A (DRO only), MW-22A, MW-70, MW-74, MW-75, MW-76, MW-79, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.

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TPH results that exceeded their respective CGWSL in EP wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Evaporation Ponds	*First Semiannual Event (June 2020)*				
	TPH-GRO	**0.0101**	40	28	2.88 J (MW-77)
	TPH-DRO-EP	**0.0167**	42	33	93.9 (MW-86)
	Second Semiannual Event (October 2020)				
	TPH-GRO	**0.0101**	30	23	4.06 JB (MW-3)
	TPH-DRO-EP	**0.0167**	31	31	80.2 (MW-86)

J: Indicates an estimated value
B: Analyte was also detected in the associated method blank.

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in EP wells sampled during both 2020 semiannual events.

As shown in the COC concentration plots included in Appendix D, DRO and GRO concentrations in EP wells are overall stable over time despite occasional fluctuations, with the following exceptions:

- DRO concentrations in EP wells MW-3, MW-4A, MW-5B, MW-5C, MW-6A, MW-6B, MW-18A, MW-18B, MW-22B, MW-73 through MW-78, MW-80 through MW-84, OCD-7AR, and OCD-8A have exhibited an overall increasing trend since approximately 2011. However, DRO concentrations have exhibited a stable to decreasing trend over the four to twelve most recent sampling events in these wells. DRO concentrations in these wells will be reviewed again in 2021.
- DRO and GRO concentrations have been overall increasing in OCD-5 since October 2016. GRO concentrations increased from 0.912 mg/L in October 2019 to 1.09 mg/L in June 2020, which is the historical maximum for this well. GRO decreased in October 2020 to 0.724 mg/L. DRO has exhibited a stable trend over the three most recent sampling events. DRO and GRO concentrations in OCD-5 will be reviewed again in 2021.
- GRO concentrations increased from April 2019 to June 2020 in wells EP wells MW-77, MW-81, and MW-82, However, the June 2020 concentrations remain below the historical maximum for each well except for MW-77, which increased to a historical maximum of 2.88 J mg/L.

Apparent GRO concentration increases shown on the COC concentration plots included in Appendix D for EP wells MW-78, MW-84, MW-86, and MW-122 in 2020 are attributed to elevated detection limits. GRO was not detected in these wells in 2020 above the plotted elevated detection limits of 1.57 mg/L (MW-78 and MW-122), 6.28 mg/L (MW-86) and 3.14 mg/L (MW-84).

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Volatile Organic Compounds, EPs

In 2020, groundwater samples collected from the following EP wells during each semiannual event were analyzed for VOCs:

- First Semiannual Event (42 wells): MW-1R, MW-2A, MW-3, MW-4A, MW-5A, MW-6A, MW-7A, MW-10, MW-11A, MW-15, MW-18A, MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.
- Second Semiannual Event (31 wells): MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-18A, MW-22A, MW-70, MW-74, MW-75, MW-76, MW-79, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.

VOC results that exceeded their respective CGWSL in EP wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Evaporation Ponds	*First Semiannual Event (June 2020)*				
	Benzene	**0.00500**	42	1	0.0242 (MW-86)
	Methylene chloride	**0.00500**	42	2	0.018 J (MW-3)
	TCE	**0.00500**	42	1	0.022 (MW-6A)
	First Semiannual Event (October 2020)				
	Benzene	**0.00500**	31	1	0.0313 (MW-86)

J: Indicates an estimated value

As summarized above and highlighted in Table 4A, benzene and trichloroethene (TCE) were detected in exceedance of their respective CGWSLs in an EP well during at least one 2020 sampling event. Additionally, methylene chloride was detected in two EP wells (MW-3 and MW-6A) at estimated concentrations above the CGWSL in June 2020, but the results are not considered confirmed exceedances as methylene chloride is a common laboratory contaminant and it was not detected in the field duplicate collected from MW-3. The methylene chloride results are summarized and highlighted in Appendix C. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of VOCs in groundwater samples collected from EP wells were generally consistent with historical results with exceptions listed below. As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in EP wells are stable to declining over time, with the following exceptions:

- Well MW-86 was not sampled between April 2008 and October 2019 due to the presence of PSH at a thickness ≥0.03 feet. Benzene was detected in MW-86 at 0.0242 mg/L in June 2020 and 0.0313 mg/L in October 2020, which are the first exceedances of benzene above the CGWSL in any EP well since at least October 2018. However, this well was sampled once after installation in March 2007 and benzene exceeded the

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CGWSL at a concentration of 0.022 mg/L. Benzene concentrations in this well will be reviewed again in 2021.

- TCE was detected in MW-6A in June 2020 at a concentration of 0.0217 mg/L. This is the first detection of TCE in this well since at least April 2017. TCE concentrations in this well will be reviewed again in 2021.

Total Metals, EPs

In 2020, groundwater samples were collected from the following EP wells during each semiannual event for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium):

- First Semiannual Event (42 wells): MW-1R, MW-2A, MW-3, MW-4A, MW-5A, MW-6A, MW-7A, MW-10, MW-11A, MW-15, MW-18A, MW-22A, MW-70, MW-72, MW-73, MW-74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.
- Second Semiannual Event (31 wells): MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-18A, MW-22A, MW-70, MW-74, MW-75, MW-76, MW-79, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.

In addition, groundwater samples collected from wells MW-18A, MW-86, and OCD-8A were analyzed for the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium). Total metal results that exceeded their respective CGWSL in EP wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Evaporation Ponds	First Semiannual Event (June 2020)				
	Arsenic	**0.0100**	42	23	0.270 (MW-75)
	Boron	**0.750**	3	2	1.88 (MW-18A)
	Chromium	**0.0500**	42	2	0.126 (MW-78)
	Iron	**1.00**	42	29	9.81 (OCD-7AR)
	Manganese	**0.200**	42	41	4.60 (MW-79)
	Selenium	**0.0500**	42	1	0.151 (MW-74)
	Second Semiannual Event (October 2020)				
	Arsenic	**0.0100**	31	18	0.320 (MW-75)
	Boron	**0.750**	3	2	1.98 (MW-18A)
	Iron	**1.00**	31	20	10.4 (OCD-7AR)
	Manganese	**0.200**	31	29	4.98 (MW79)

As summarized above and highlighted in Table 4B, arsenic, boron, chromium, iron, manganese, and selenium were detected in exceedance of their respective CGWSLs in EP wells during at

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least one 2020 sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater samples collected from EP wells were generally consistent with historical results, with the following exceptions:

- Arsenic concentrations in MW-7A increased from 0.0178 mg/L in June 2020 to 0.0373 mg/L in October 2020, which is below the historical maximum for this well. Arsenic concentrations in this well have fluctuated occasionally over time and will be reviewed again in 2021.
- Arsenic concentrations in MW-78 increased from 0.00686 mg/L in April 2019 to 0.0237 mg/L in October 2020, which is below the historical maximum for this well. Arsenic concentrations in this well have fluctuated occasionally over time and will be reviewed again in 2021.
- Arsenic concentrations in MW-84 increased over the four most recent sampling events from 0.0809 mg/L in April 2019 to 0.187 mg/L in October 2020, which is the historical maximum for this well. Arsenic concentrations in this well have fluctuated occasionally over time and will be reviewed again in 2021.
- Iron concentrations have fluctuated up to two orders of magnitude in many EP wells over time. Iron concentrations in EP wells during the 2020 semiannual sampling events were generally consistent with historical results except in MW-18A, MW-78, MW-82, and OCD-1R. Iron concentrations in these wells increased during the June 2020 semiannual event to the first CGWSL exceedance since at least April 2018. Concentrations in both wells decreased to below the CGWSL in October 2020.

Concentrations of target COC arsenic in EP wells are overall stable despite occasional fluctuations, except in wells discussed above, as shown in the COC concentration plots included in Appendix D.

Cyanide, EPs

Groundwater samples collected from EP wells MW-18A, MW-86, and OCD-8A during both 2020 semiannual events were analyzed for cyanide. Cyanide was detected below the CGWSL in well MW-86 during the October 2020 sampling event at an estimated concentration of 0.00261 J mg/L. Cyanide was not detected above the method detection limit or the CGWSL in groundwater samples collected from any other EP wells during either semiannual event..

Water Quality Parameters, EPs

In 2020, groundwater samples were collected from the following EP wells during each semiannual event for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]):

- First Semiannual Event (42 wells): MW-1R, MW-2A, MW-3, MW-4A, MW-5A, MW-6A, MW-7A, MW-10, MW-11A, MW-15, MW-18A, MW-22A, MW-70, MW-72, MW-73, MW-

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74, MW-75, MW-76, MW-77, MW-78, MW-79, MW-80, MW-81, MW-82, MW-83, MW-84, MW-86, MW-87, MW-88, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, OCD-6, OCD-7AR, and OCD-8A.

- Second Semiannual Event (26 wells): MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-11A, MW-18A, MW-22A, MW-74, MW-75, MW-76, MW-79, MW-83, MW-84, MW-86, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-5, OCD-6, OCD-7AR, and OCD-8A .

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from various EP wells, as highlighted in Table 4C. The reported concentrations of these constituents in 2020 were overall consistent with historical results.

5.3.4 Three Mile Ditch – Analytical Results

Groundwater monitoring is ongoing along the inactive TMD. Analytical results of groundwater samples collected from TMD wells in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, TMD

In 2020, groundwater samples were collected from the following TMD wells during each semiannual event for analysis of DRO:

- First Semiannual Event (11 wells): MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-46R, MW-68, MW-71, and MW-89.
- Second Semiannual Event (2 wells): MW-21 and MW-46R.

In addition, groundwater samples collected from wells MW-8 and MW-21 were analyzed for GRO. TPH results that exceeded their respective CGWSL in TMD wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TMD	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	11	3	0.218 (MW-89)
	TPH-GRO	**0.0101**	2	2	0.300 (MW-8)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	2	2	0.163 (MW-21)
	TPH-GRO	**0.0101**	1	1	0.492 (MW-21)

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in TMD wells sampled in at least one 2020 semiannual event.

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As shown in the COC concentration plots included in Appendix D, DRO concentrations have exhibited an overall increasing trend since 2013 in TMD wells MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-68, and MW-89. However, the DRO concentrations in these wells have exhibited a stable to decreasing trend over at least the five most recent sampling events. DRO concentrations in these wells will be reviewed again in 2021.

As shown in the COC concentration plots included in Appendix D, GRO concentrations have exhibited an overall increasing trend since 2014 in TMD wells MW-8 and MW-21. Reported GRO concentrations in 2020 increased in well MW-8 from 0.127 mg/L in April 2019 to 0.300 mg/L in June 2020 but remain below the historical maximum of 0.585 mg/L observed in April 2017. GRO concentrations increased in well MW-21 from 0.229 mg/L in October 2019 to 0.284 mg/L in June 2020 to 0.492 mg/L in October 2020, which is the historical maximum for this well. GRO concentrations in both these wells will be reviewed again in 2021.

Volatile Organic Compounds, TMD

In 2020, groundwater samples collected from the following TMD wells during each semiannual event were analyzed for VOCs:

- First Semiannual Event (12 wells): MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-46R, MW-68, MW-71, MW-89, and NP-1.
- Second Semiannual Event (3 wells): MW-21, MW-46R, and NP-1.

VOC results that exceeded their respective CGWSL in TMD wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TMD	*First Semiannual Event (June 2020)*				
	MTBE	**0.100**	12	3	0.216 (NP-1)
	Second Semiannual Event (October 2020)				
	MTBE	**0.100**	3	2	0.243 (MW-21)

As summarized above and highlighted in Table 4A, MTBE was detected in exceedance of its CGWSL in TMD wells during both 2020 sampling events. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 VOC results for groundwater samples collected from TMD wells were generally consistent with historical results. As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in TMD wells are overall stable, except for MTBE in wells MW-8, MW-21, and NP-1, which are discussed below:

- MTBE concentrations in MW-8 increased over the five most recent sampling events and exceeded the CGWSL for the first time in June 2020 at a concentration of 0.149 mg/L, which is the historical maximum for this well.

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- MTBE concentrations in MW-21 have exhibited an overall increasing trend since October 2013 and exceeded the CGWSL during both 2020 semiannual sampling events. Concentrations decreased slightly from 0.217 mg/L in October 2019 to 0.128 mg/L in June 2020 but increased to 0.243 mg/L in October 2020, which is the historical maximum for this well.
- MTBE concentrations in NP-1 have overall increased since November 2014 but have exhibited a stable to decreasing trend since 2017 despite seasonal fluctuations.

MTBE concentrations in these wells will be reviewed again in 2021.

Total Metals, TMD

In 2020, groundwater samples were collected from the following TMD wells during each semiannual event for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium):

- First Semiannual Event (11 wells): MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-46R, MW-68, MW-71, and MW-89.
- Second Semiannual Event (2 wells): MW-21 and MW-46R.

In addition, the groundwater sample collected from TMD well MW-71 during the first 2020 semiannual event was analyzed for the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium). Total metal results that exceeded their respective CGWSL in TMD wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
TMD	*First Semiannual Event (June 2020)*				
	Manganese	**0.200**	11	5	0.906 (MW-25)
	Selenium	**0.0500**	11	2	0.0626 (MW-8)
	Uranium	**0.0300**	1	1	0.0698 (MW-71)

As summarized above and highlighted in Table 4B, manganese, selenium and uranium were detected in exceedance of their respective CGWSLs in TMD wells during the first 2020 sampling event. Total metals were not detected above the CGWSL during the second 2020 sampling event No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater samples collected from TMD wells were generally consistent with historical results, with the following exceptions:

- Selenium concentrations in TMD wells MW-8, MW-27, and MW-68 have increased over the four most recent sampling events conducted from April 2019 through June 2020. Selenium concentrations remain below the CGWSL in MW-27 and MW-68. Selenium exceeded the CGWSL in June 2020 for the first time since at least April 2017, at a concentration of 0.0626 mg/L.

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- Selenium concentrations in MW-21 were detected above the CGWSL in June 2020 for the first time since at least April 2018, at a concentration of 0.0521 mg/L, which is the historical maximum for this well since at least April 2018. Selenium concentrations decreased in October 2020 to 0.0429 mg/L, which is below the CGWSL.

Concentrations of target COC arsenic in TMD wells are overall stable, as shown in the COC concentration plots included in Appendix D.

Cyanide, TMD

Cyanide was not detected above the method detection limit or the CGWSL in the groundwater sample collected from TMD well MW-71 during the first 2020 semiannual event.

Water Quality Parameters, TMD

In 2020, groundwater samples were collected from the following TMD wells during each semiannual event for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]):

- First Semiannual Event (12 wells): MW-8, MW-16, MW-20, MW-21, MW-25, MW-26, MW-27, MW-46R, MW-68, MW-71, MW-89, and NP-1.
- Second Semiannual Event (2 wells): MW-21 and MW-46R.

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from TMD wells, as highlighted in Table 4C. The reported concentrations of these constituents in 2020 were consistent with historical results, with the following exceptions:

- Chloride concentrations in MW-8 increased over the four most recent sampling events from 334 mg/L in April 2017 to 599 mg/L in June 2020.
- Chloride concentrations in MW-68 exceeded the CGWSL in June 2020 for the first time since at least April 2017. Chloride concentrations increased from 145 mg/L in April 2019 to 354 mg/L in June 2020.

5.3.5 North Refinery Area – Analytical Results

Groundwater monitoring is ongoing in the northern portion of the active refinery (i.e., North Refinery Area). Groundwater samples were collected from the following North Refinery Area wells listed below during the 2020 semiannual sampling events:

- First Semiannual Event (22 wells): MW-23, MW-29, MW-39, MW-40, MW-41, MW-42, MW-43, MW-59, MW-60, MW-61, MW-62, MW-90, MW-91, MW-93, MW-95, MW-96, MW-98, RW-7, RW-9, RW-10, RW-16B, and RW-17A.
- Second Semiannual Event (11 wells): MW-23, MW-29, MW-39, MW-43, MW-60, MW-61, MW-62, MW-62R, MW-90, MW-96, and MW-98.

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Groundwater samples collected from these North Refinery Area wells were analyzed for DRO, GRO (except for RW-16B), VOCs, the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium), and water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite). In addition, groundwater samples collected from wells MW-43 and MW-60 were analyzed for cyanide and the expanded total metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium).

Analytical results of groundwater samples collected from wells located within the North Refinery Area in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, North Refinery Area

In 2020, groundwater samples were collected from North Refinery Area wells for analysis of TPH DRO and GRO. TPH results that exceeded their respective CGWSL in North Refinery Area wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
North Refinery	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	22	22	13.0 (MW-23)
	TPH-GRO	**0.0101**	21	21	36.2 (MW-91)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	11	11	17.9 (MW-23)
	TPH-GRO	**0.0101**	11	11	71.6 (MW-96)

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in all North Refinery Area wells sampled during both 2020 semiannual events.

As shown in the COC concentration plots included in Appendix D, DRO concentrations in North Refinery Area wells MW-29, MW-41, MW-59, MW-67, MW-91, MW-92, MW-95, MW-96, RW-7, RW-9, RW-10, RW-16 and RW-17 have exhibited an overall increasing trend since approximately 2010-2014. However, the DRO concentrations have exhibited a stable to decreasing trend over at least the six most recent sampling events in all of these wells except MW-29, MW-41, MW-59, RW-7, and RW-16. DRO concentrations in MW-29, MW-41, RW-7, and RW-16 in 2020 were less than historical maximum concentrations. DRO concentrations increased to a historical maximum of 2.97 mg/L in well MW-59 during the first 2020 semiannual event (this well is only sampled on an annual basis). DRO concentrations in the remaining North Refinery Area wells were overall stable over time.

GRO analytical results in groundwater samples collected from North Refinery Area wells in 2020 were generally consistent with historical results except in well MW-59, MW-91, MW-95, and MW-96, as follows:

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- GRO concentrations in MW-59 increased from 0.0605 mg/L in April 2019 to 0.302 mg/L in June 2020, which is the historical maximum for this well.
- GRO concentrations in MW-91 increased from 13.8 mg/L in April 2019 to 34.8 B mg/L in October 2019 to 36.2 mg/L in June 2020, which is the historical maximum for this well.
- GRO concentrations in MW-96 increased from 25.7 mg/L in October 2019 to 30.4 mg/L in June 2020 to 71.6 mg/L in October 2020, which is the historical maximum for this well.

GRO concentrations in these wells will be reviewed again in 2021. As shown in the COC concentration plots included in Appendix D, GRO concentrations in all other North Refinery Area wells are overall stable over time with occasional fluctuations.

Volatile Organic Compounds, North Refinery Area

In 2020, groundwater samples were collected from North Refinery Area wells for analysis of VOCs. VOC results that exceeded their respective CGWSL in North Refinery Area wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
North Refinery	*First Semiannual Event (June 2020)*				
	Benzene	**0.00500**	22	10	4.12 (MW-91)
	Toluene	**1.00**	22	1	6.95 (MW-91)
	Ethylbenzene	**0.700**	22	2	1.85 (MW-91)
	o-Xylene	**0.193**	22	1	0.649 (MW-91)
	Total Xylenes	**0.620**	22	3	2.50 (MW-91)
	MTBE	**0.100**	22	1	37.6 (MW-96)
	Naphthalene	**0.0300**	22	6	0.255 (MW-98)
	1,2,4-TMB	**0.0560**	22	6	0.646 (MW-98)
	1,3,5-TMB	**0.0600**	22	3	0.110 (MW-98)
	Second Semiannual Event (October 2020)				
	Benzene	**0.00500**	11	7	9.06 (MW-43)
	Ethylbenzene	**0.700**	11	1	0.788 (MW-98)
	Total Xylenes	**0.620**	11	4	1.88 (MW-98)
	MTBE	**0.100**	11	1	40.5 (MW-96)
	Naphthalene	**0.0300**	11	6	0.207 (MW-98)
	1,2,4-TMB	**0.0560**	11	5	0.371 (MW-98)
	1,3,5-TMB	**0.0600**	11	2	0.0820 (MW-98)

As summarized above and highlighted in Table 4A, benzene, toluene, ethylbenzene, o-xylene, total xylenes, MTBE, naphthalene, 1,2,4-TMB, and 1,3,5-trimethylbenzene (1,3,5-TMB) were detected in exceedance of their respective CGWSLs in North Refinery Area wells during at least one 2020 semiannual sampling event. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 VOC results in groundwater samples collected from North Refinery Area wells were generally consistent with historical results with exceptions listed below. As shown in the COC

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concentration plots included in Appendix D, concentrations of target VOCs in North Refinery Area wells have exhibited an overall stable trend over time despite occasional fluctuations, with the following exceptions:

- Benzene and MTBE concentrations in MW-41 increased over the three to four most recent sampling events but remain below their respective historical maximums in this well. Benzene increased from not detected above the method detection limit in April 2018 to 0.00758 mg/L in April 2019 to 0.0173 mg/L in June 2020. MTBE increased from 0.00380 mg/L in April 2017 to 0.0254 mg/L in June 2020.
- Benzene, ethylbenzene, toluene, MTBE, and naphthalene concentrations have overall increased in MW-43 since 2012. However, concentrations of these target VOCs have exhibited a stable to decreasing trend since October 2015. Benzene, ethylbenzene, toluene, MTBE, and naphthalene concentrations in MW-43 have decreased or remained stable during both semiannual sampling events in 2020.
- MTBE and naphthalene concentrations in MW-59 increased from not detected above the method detection limit in April 2019 to 0.00350 mg/L and 0.00202 J mg/L, respectively, in June 2020. This is the first time these VOCs have been detected above the method detection limit in this well and is the historical maximum concentration; however, both concentrations remain below the CGWSL.
- MTBE concentrations in MW-62 increased over the four most recent sampling events from not detected above the method detection limit of 0.00734 mg/L in April 2019 to 0.0836 mg/L in October 2020, which is the historical maximum in this well. MTBE concentrations have fluctuated over time in this well and remain below the CGWSL.
- Ethylbenzene, toluene, and total xylenes have generally increased in MW-91 over the four most recent sampling events. Ethylbenzene and toluene concentrations during the June 2020 sampling event remain below historical maximum concentrations in this well. The June 2020 total xylenes concentration of 2.50 mg/L is the historic maximum concentration reported in this well. MW-91 was not sampled in October 2020 due to the presence of PSH at a thickness ≥0.03 feet.
- Benzene concentrations in MW-93 increased from 0.673 mg/L in April 2019 to 1.21 mg/L in June 2020 but remains below the historical maximum of 2.70 mg/L in April 2009. Benzene is overall stable to decreasing in this well over time.
- MTBE concentrations in RW-9 increased from 0.00439 mg/L in April 2019 to 0.0674 mg/L in June 2020, which is the historic maximum for this well. However, MTBE concentrations remain below the CGWSL.

Total Metals, North Refinery Area

In 2020, groundwater samples were collected from North Refinery Area wells for analysis of total metals. Total metal results that exceeded their respective CGWSL in North Refinery Area wells are summarized in the table below:

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Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
North Refinery	*First Semiannual Event (June 2020)*				
	Arsenic	**0.0100**	22	5	0.0426 (MW-62)
	Barium	**2.00**	22	1	9.81 (MW-23)
	Boron	**0.750**	2	1	0.781 (MW-43)
	Iron	**1.00**	22	2	2.57 (RW-7)
	Manganese	**0.200**	22	7	0.857 (MW-41)
	Selenium	**0.0500**	22	1	0.0922 (RW-16B)
	Second Semiannual Event (October 2020)				
	Arsenic	**0.0100**	11	3	0.079 (MW-62R)
	Barium	**2.00**	11	1	12.3 (MW-23)
	Boron	**0.750**	2	1	0.770 (MW-43)
	Iron	**1.00**	11	1	2.90 (MW-29)
	Manganese	**0.200**	11	4	1.09 (MW-62R)

As summarized above and highlighted in Table 4B, arsenic, barium, boron, iron, manganese, and selenium were detected in exceedance of their respective CGWSLs in North Refinery wells during at least one 2020 semiannual sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater samples collected from North Refinery Area wells were generally consistent with historical results, with the following exceptions:

- Barium concentrations in MW-23 increased from 9.81 mg/L in June 2020 to 12.3 mg/L in October 2020, which is the historical maximum since at least April 2018
- Arsenic concentrations in MW-29 have overall increased since April 2019 but appear to be stabilizing over the last three sampling events. Arsenic concentrations have occasionally fluctuated above and below the CGWSL over time in this well and remain below the historical maximum of 0.0429 mg/L in April 2008.
- Arsenic concentrations in MW-41 increased from 0.00673 mg/L in April 2019 to 0.0107 mg/L in June 2020, which is the first exceedance of the CGWSL since April 2012, but below the historical maximum concentration of 0.0195 mg/L in December 2006.
- Arsenic concentrations in MW-62 have overall increased since October 2018and have exceeded the CGWSL during the last three sampling events. Arsenic concentrations were reported at 0.0426 mg/L in June 2020 and 0.0451 mg/L in October 2020, which is the historical maximum reported in this well. Arsenic concentrations have occasionally fluctuated above and below the CGWSL in this well over time and will be reviewed again in 2021.
- Arsenic, iron, and manganese concentrations in MW-62R exceeded their respective CGWSLs in October 2020. As this well was installed in September 2020, the October

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semiannual event was the first groundwater data collected for this well. Total metals concentrations in this well will be reviewed again in 2021.

- Manganese concentrations in MW-93 in June 2020 exceeded the CGWSL for the first time since April 2017, at a concentration of 0.208 mg/L. This is the historical maximum for this well since at least April 2017.
- Arsenic concentrations in RW-16 increased over the three most recent sampling events from 0.009922 mg/L in April 2018 to 0.0267 mg/L in June 2020, which is the historical maximum for this well. Arsenic concentrations in this well will be reviewed again in 2021. Iron concentrations in RW-16 increased from 0.0160 J mg/L in April 2019 to 1.10 mg/L in June 2020, which is the first CGWSL exceedance in this well since at least April 2017. Iron concentrations have fluctuated above and below the CGWSL across the facility over time.

As shown in the COC concentration plots included in Appendix D, concentrations of target COC arsenic in North Refinery Area wells have fluctuated above and below the CGWSL over time in wells MW-23, MW-29, MW-39, MW-41 through MW-43, MW-60, MW-62, MW-67, MW-90, MW-93, RW-1, RW-2, RW-7, and RW-16. Arsenic concentrations are overall stable to declining, despite occasional fluctuating, with the exceptions noted above.

Cyanide, North Refinery Area

Groundwater samples collected from North Refinery Area wells MW-43 and MW-60, during the 2020 semiannual events were analyzed for cyanide. Cyanide was not detected above the method detection limit of the CGWSL in groundwater samples collected from these wells.

Water Quality Parameters, North Refinery Area

In 2020, groundwater samples were collected from North Refinery Area wells for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]).

No CGWSLs are applicable for calcium, potassium, or sodium. Nitrate/nitrite did not exceed the CGWSL in any of the North Refinery Area wells during both 2020 semiannual events. Chloride, fluoride, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from various North Refinery Area wells, as highlighted in Table 4C. The reported concentrations of these constituents were generally consistent with historical results except sulfate concentrations in MW-95 exceeded the CGWSL for the first time since at least April 2017. Sulfate concentrations increased from 561 mg/L in April 2019 to 682 mg/L in June 2020. Water quality parameter concentrations have fluctuated over time in this well.

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5.3.6 South Refinery Area – Analytical Results

Groundwater monitoring is ongoing in the southern portion of the active refinery (i.e., South Refinery Area). Analytical results of groundwater samples collected from wells located within the South Refinery Area in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, South Refinery Area

Groundwater samples were collected from the following South Refinery Area wells during each 2020 semiannual event for analysis of DRO and GRO, unless noted otherwise:

- First Semiannual Event (16 wells): MW-28, MW-50 (DRO only), MW-52, MW-64, MW-66, MW-99, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110, MW-139, and RW-4 (DRO only).
- Second Semiannual Event (13 wells): MW-28, MW-50 (DRO only), MW-52, MW-64, MW-66, MW-101, MW-102, MW-104, MW-105, MW-106, MW-109, MW-110, and MW-139.

TPH results that exceeded their respective CGWSL in South Refinery Area wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
South Refinery	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	16	16	14.6 (MW-106)
	TPH-GRO	**0.0101**	14	13	102 (MW-64)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	13	13	16.5 (MW-106)
	TPH-GRO	**0.0101**	12	11	94.8 (MW-64)

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in South Refinery Area wells sampled during both 2020 semiannual events.

As shown in the COC concentration plots included in Appendix D, DRO concentrations in South Refinery Area wells MW-28, MW-50, MW-99, MW-101, MW-104, MW-106, and RW-4 have exhibited an overall increasing trend since approximately 2011 with occasional fluctuations. However, DRO concentrations have exhibited a stable to decreasing trend in these wells over at least the five most recent sampling events, in wells other than MW-101. DRO concentrations in MW-101 increased slightly from 4.85 mg/L in June 2020 to 6.07 mg/L in October 2020, which is the historical maximum for this well. DRO concentrations in these wells will be reviewed again in 2021.

As shown in the COC concentration plots included in Appendix D, GRO concentrations in South Refinery Area wells have exhibited a stable trend over time despite occasional fluctuations,

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except in MW-48 and MW-101. GRO concentrations in MW-48 exhibited an overall increasing trend between 2014 and 2018 but was stable to decreasing between April 2018 and October 2019. MW-48 was not sampled in 2020 due to the presence of PSH at a thickness ≥0.03 feet. GRO concentrations in MW-101 increased from 0.553 mg/L in June 2020 to 5.37 mg/L in October 2020. GRO concentrations in these wells will be reviewed again in 2021.

Volatile Organic Compounds, South Refinery Area

Groundwater samples were collected from the following South Refinery Area wells during each 2020 semiannual event for analysis of VOCs:

- First Semiannual Event (17 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-99, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110, MW-139, RA-313, and RW-4.
- Second Semiannual Event (13 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-101, MW-102, MW-104, MW-105, MW-106, MW-109, MW-110, and MW-139.

VOC results that exceeded their respective CGWSL in North Refinery Area wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
South Refinery	*First Semiannual Event (April 2020)*				
	Benzene	**0.00500**	17	11	27.5 (MW-64)
	Toluene	**1.00**	17	1	9.93 (MW-64)
	Ethylbenzene	**0.700**	17	1	1.76 (MW-64)
	o-Xylene	**0.193**	17	1	1.03 (MW-64)
	Total Xylenes	**0.620**	17	1	4.29 (MW-64)
	MTBE	**0.100**	17	5	1.62 (MW-66)
	Naphthalene	**0.0300**	17	2	0.167 (MW-66)
	1,2,4-TMB	**0.0560**	17	4	0.453 J (MW-64)
	1,3,5-TMB	**0.0600**	17	1	0.076 J (MW-64)
	Second Semiannual Event (October 2020)				
	Benzene	**0.00500**	13	9	27.2 (MW-64)
	Toluene	**1.00**	13	1	8.09 (MW-64)
	Ethylbenzene	**0.700**	13	1	1.55 (MW-64)
	o-Xylene	**0.193**	13	1	0.794 (MW-64)
	Total Xylenes	**0.620**	13	1	3.1 (MW-64)
	MTBE	**0.100**	13	5	1.9 (MW-66)
	Naphthalene	**0.0300**	13	3	0.127 J (MW-102)
	1,2,4-TMB	**0.0560**	13	4	0.252 (MW-64)

J: Indicates an estimated value

As summarized above and highlighted in Table 4A and Appendix C, benzene, toluene, ethylbenzene, o-xylene, total xylenes, MTBE, naphthalene, 1,2,4-TMB, and 1,3,5-TMB were detected in exceedance of their respective CGWSLs in South Refinery Area wells during at

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least one 2020 sampling event. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of VOCs in groundwater samples collected from South Refinery Area wells were generally consistent with historical results with exceptions listed below.

- Benzene, ethylbenzene, naphthalene, o-xylene, toluene, and total xylenes increased in MW-101 in October 2020. Benzene concentrations increased from 0.000430 J mg/L in October 2019 to 0.00438 mg/L in June 2020 to 2.32 mg/L in October 2020, which is below the historical maximum but the first exceedance of the CGWSL since April 2017. Ethylbenzene increased from not detected above the method detection limit in October 2019 to 0.000302 J mg/L in June 2020 to 0.0180 mg/L in October 2020, which is below the historical maximum and the CGWSL. Naphthalene, o-xylene, toluene, and total xylenes increased from not detected above their respective detection limits in June 2020 to 0.0180 mg/L, 0.0000814 J mg/L, 0.00858 mg/L, and 0.0779 mg/L, respectively, which are each below their respective CGWSLs.
- 1,2,4-TMB and 1,3,5-TMB concentrations in MW-101 increased from not detected above their respective method detection limit in June 2020 to 0.0254 mg/L and 0.00284 mg/L, respectively, in October 2020, which are the first detections of 1,2,4-TMB and 1,3,5-TMB in this well since at least April 2018.
- Ethylbenzene concentrations in MW-105 increased from 0.0282 J mg/L in June 2020 to 0.584 mg/L in October 2020, which is below the historical maximum and CGWSL. Ethylbenzene has fluctuated above and below the CGWSL in this well over time.
- Benzene concentrations increased in MW-106 from 9.39 mg/L in June 2020 to 14.9 mg/L in October 2020, which is slightly below the historical maximum of 15.0 mg/L in September 2009. Benzene concentrations have been generally stable in this well since 2015 and will be reviewed again in 2021.

As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in South Refinery Area wells have exhibited overall stable trends over time despite occasional fluctuations, with the exceptions listed above.

Total Metals, South Refinery Area

In 2020, groundwater samples were collected from the following South Refinery Area wells during each semiannual event for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium):

- First Semiannual Event (16 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-99, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110, MW-139, and RW-4.
- Second Semiannual Event (13 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-101, MW-102, MW-104, MW-105, MW-106, MW-109, MW-110, and MW-139.

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In addition, groundwater samples collected from South Refinery Area wells MW-28, MW-52, and MW-66 were also analyzed for the expanded metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium) during both 2020 semiannual events. Total metals results that exceeded their respective CGWSL in South Refinery Area wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
South Refinery	*First Semiannual Event (June 2020)*				
	Arsenic	**0.0100**	16	5	0.0735 (MW-101)
	Barium	**1.00**	16	3	8.69 (MW-102)
	Boron	**0.750**	3	2	1.32 (MW-28)
	Iron	**1.00**	16	1	3.42 (MW-101)
	Manganese	**0.200**	16	7	1.92 (MW-110)
	Second Semiannual Event (October 2020)				
	Arsenic	**0.0100**	13	6	0.0386 (MW-110)
	Barium	**1.00**	13	3	8.81 (MW-102)
	Boron	**0.750**	3	2	1.32 (MW-28)
	Iron	**1.00**	13	1	1.75 (MW-101)
	Manganese	**0.200**	13	6	2.01 (MW-110)

As summarized above and highlighted in Table 4B, arsenic, barium, boron, iron, and manganese were detected in exceedance of their respective CGWSLs in South Refinery Area wells during both 2020 sampling events. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater in South Refinery Area wells were generally consistent with historical results, with the following exceptions:

- Arsenic concentrations in MW-106 increased over the four most recent sampling events from 0.00725 mg/L in April 2019 to 0.0255 mg/L in October 2020, which is the historical maximum for this well. Arsenic concentrations in this well will be reviewed again in 2021.
- Barium concentrations in MW-105 increased from 0.983 mg/L in June 2020 to 8.29 mg/L in October 2020, which is the maximum concentration in this well since at least April 2018. Barium has fluctuated above and below the CGWSL in this well.

Concentrations of target COC arsenic in South Refinery Area wells are overall stable with occasional fluctuations, as shown in the COC concentration plots included in Appendix D. Arsenic concentrations have fluctuated above and below the CGWSL over time in wells KWB-6, MW-28, MW-48, MW-52, MW-65, MW-66, MW-99, MW-104 through MW-107, MW-109, and MW-110.

Cyanide, South Refinery Area

Groundwater samples collected from South Refinery Area wells MW-28, MW-52, and MW-66 were analyzed for cyanide during both 2020 semiannual events. Cyanide was not detected

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above the method detection limit or the CGWSL in groundwater samples collected from these wells.

Water Quality Parameters, South Refinery Area

In 2020, groundwater samples were collected from the following South Refinery Area wells during each semiannual event for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]):

- First Semiannual Event (17 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-99, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, MW-109, MW-110, MW-139, RA-313, and RW-4.
- Second Semiannual Event (13 wells): MW-28, MW-50, MW-52, MW-64, MW-66, MW-101, MW-102, MW-104, MW-105, MW-106, MW-109, MW-110, and MW-139.

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples collected from at least one South Refinery Area well as highlighted in Table 4C. The reported concentrations of these constituents exhibit an overall stable trend with occasional fluctuations across the South Refinery Area, with the following exceptions:

- Nitrate/nitrite concentrations in MW-50 increased from 1.53 mg/L in October 2019 to 74.6 mg/L in June 2020 to 78.5 mg/L in October 2020. The 2020 results were the first exceedances of the CGWSL of 10.0 mg/L since at least April 2018
- Nitrate/nitrite concentrations in MW-52 have overall increased since April 2018 and continue to exceed the CGWSL in 2020; however, concentrations have generally stabilized during the past four semiannual sampling events since April 2019.

5.3.7 Field East of Refinery – Analytical Results

Groundwater monitoring is ongoing in the Field East of Refinery located between the refinery and the EPs. Analytical results of groundwater samples collected from wells located within the Field East of Refinery in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, Field East of Refinery

Groundwater samples were collected from the following wells located within the Field East of Refinery during each 2020 semiannual event for analysis of DRO and GRO, unless noted otherwise:

- First Semiannual Event (17 wells): KWB-1A (DRO only), KWB-7 (DRO only), KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-111, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-131, MW-134, MW-135, and RW-12R (DRO only).

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- Second Semiannual Event (15 wells): KWB-1A (DRO only), KWB-7 (DRO only), KWB-8 (DRO only), KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-134, and MW-135.

TPH results that exceeded their respective CGWSL Field East of Refinery wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Field East of Refinery	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	17	10	7.29 (KWB-7)
	TPH-GRO	**0.0101**	14	8	8.68 (MW-131)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	15	11	6.8 (KWB-8)
	TPH-GRO	**0.0101**	12	8	3.3 (MW-113)

As summarized above and highlighted in Table 4A, DRO and GRO were detected in exceedance of their respective CGWSLs in Field East of Refinery wells sampled during both 2020 semiannual events.

As shown in the COC concentration plots included in Appendix D, DRO analytical results in groundwater samples collected from wells located in the Field East of Refinery in 2020 were overall consistent with historical results, with the following exceptions:

- DRO concentrations in wells KWB-1A, KWB-1C, KWB-7, KWB-11A, MW-58 and MW-125 have overall increased since approximately 2011-2013 with occasional fluctuations. However, DRO concentrations have stabilized in these wells over at least the three most recent sampling events except in KWB-7, KWB-11B, and MW-58. Well MW-58 was not sampled in 2020 due to the presence of PSH at a thickness ≥0.03 feet. DRO concentrations in KWB-7 increased to a historical maximum of 7.29 mg/L in June 2020 but decreased to 1.05 mg/Lin October 2020, which is consistent with historical results. DRO concentrations in KWB-11B increased from not detected above the method detection limit of 0.0247 mg/L in October 2019 to 0.0514 mg/L in June 2020 to 0.0956 mg/L in October 2020, which is below the historical maximum for this well. DRO concentrations in these wells will be reviewed again in 2021.

- DRO concentrations in KWB-8 increased to 6.8 mg/L in October 2020, which is the historical maximum for this well. However, this well has only been sampled four times since installation and was most previously sampled in October 2017, due to the presence of PSH presence at a thickness ≥0.03 feet from April 2018 through June 2020. DRO concentrations in this well will be reviewed again in 2021.

GRO analytical results in groundwater samples collected from wells located in the Field East of Refinery in 2020 were overall consistent with historical results, as shown in the COC concentration plots included in Appendix D, with the following exceptions:

- GRO concentrations in well KWB-11A have overall increased since 2012 but have generally stabilized over the twelve most recent sampling events (i.e., since October

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2014). GRO concentrations in June 2020 increased to a historical maximum of 0.444 mg/L but decreased to 0.0992 J mg/L in October 2020.

- GRO concentrations in MW-111 increased from 1.37 mg/L in October 2019 to 3.86 mg/L in June 2020, which is the historical maximum for this well. This well was not sampled in October 2020 due to the presence of PSH at a thickness ≥0.03 feet.
- GRO concentrations in wells MW-113 have overall increased since 2015. However, concentrations are stabilizing over the four most recent sampling events despite fluctuations. GRO concentrations decreased from 4.54 mg/L in October 2019 to 1.30 mg/L in June 2020 and increased slightly to 3.30 mg/L in October 2020. DRO concentrations will be reviewed again in 2021.

Volatile Organic Compounds, Field East of Refinery

Groundwater samples were collected from the following wells located in the Field East of Refinery during each 2020 semiannual event for analysis of VOCs:

- First Semiannual Event (20 wells): KWB-1A, KWB-7, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-111, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-131, MW-134, MW-135, RA-4196, RA-4798, RW-12R, and RW-18A.
- Second Semiannual Event (21 wells): KWB-1A, KWB-7, KWB-8, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-134, MW-135, MW-145, MW-146, MW-147, MW-148, RA-4196, and RA-4798.

VOC results that exceeded their respective CGWSL in Field East of Refinery wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Field East of Refinery	*First Semiannual Event (June 2020)*				
	1,2,4-TMB	**0.0560**	20	2	0.110 (MW-131)
	Benzene	**0.00500**	20	5	0.907 (MW-131)
	MTBE	**0.100**	20	2	2.91 (MW-131)
	O-Xylene	**0.193**	20	1	0.242 (MW-131)
	Total Xylenes	**0.620**	20	1	0.786 (MW-131)
	Second Semiannual Event (October 2020)				
	1,2,4-TMB	**0.0560**	21	2	0.833 (KWB-8)
	1,3,5-TMB	**0.0600**	21	1	0.191 J (KWB-8)
	Benzene	**0.00500**	21	3	17.8 (KWB-8)
	Ethylbenzene	**0.700**	21	1	2.89 (KWB-8)
	Naphthalene	**0.0300**	21	1	0.539 (KWB-8)
	Toluene	**1.00**	21	1	1.08 (KWB-8)
	Total Xylenes	**0.620**	21	1	4.19 (KWB-8)

As summarized above and highlighted in Table 4A, benzene, MTBE, naphthalene, o-xylene, toluene, total xylenes, 1,2,4-TMB, and 1,3.5-TMB were detected in exceedance of their

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respective CGWSLs in Field East of Refinery wells during at least one 2020 sampling event. No other VOC was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of VOCs in groundwater samples collected from wells located in the Field East of Refinery were generally consistent with historical results with exceptions listed below. As shown in the COC concentration plots included in Appendix D, concentrations of target VOCs in wells located in the Field East of Refinery have wells have exhibited stable to fluctuating trends over time, with the following exceptions:

- Benzene, naphthalene, toluene, total xylenes, and 1,2,4-TMB concentrations in KWB-7 increased in June 2020 but decreased to concentrations consistent with historical trends in October 2020. June 2020 concentrations of benzene, naphthalene, toluene, and total xylenes were below each respective historical maximum. The 1,2,4-TMB concentration of 0.0876 mg/L in June 2020 was the first exceedance of the CGWSL and maximum in this well since at least October 2017; 1,2,4-TMB decreased to below the CGWSL at 0.00287 mg/L in October 2020. VOC concentrations in this well will be reviewed again in 2021.
- Benzene, ethylbenzene, naphthalene, toluene, total xylenes, 1,2,4-TMB, and 1,3,5-TMB concentrations overall increased in KWB-8 from October 2016 to the following concentrations in October 2020: 17.8 mg/L (benzene), 2.89 mg/L (ethylbenzene), 0.539 J mg/L (naphthalene), 1.08 mg/L (toluene), 4.19 mg/L (total xylenes), 0.833 mg/L (1,2,4-TMB), and 0.191 J mg/L (1,3,5-TMB). . The October 2020 results for these VOCs were the historical maximum for this well except for toluene. However, this well has only been sampled four times since installation and has not been sampled since October 2017 due to the presence of PSH at a thickness ≥0.03 feet from April 2018 through June 2020. VOC concentrations in this well will be reviewed again in 2021.
- Benzene concentrations increased in KWB-11B increased from not detected above the method detection limit in June 2020 to 0.00192 mg/L in October 2020, which is below the CGWSL but the first detection above the method detection limit and historical maximum for this well. MTBE concentrations in KWB-11B increased over the four most recent sampling events from 0.000774 J mg/L in April 2019 to 0.00156 mg/L in October 2020, which is two orders of magnitude below the CGWSL but the historical maximum for this well.
- Benzene concentrations increased in RW-12R from 0.0764 mg/L in April 2019 to 0.154 mg/L in June 2020, which is the first exceedance of the CGWSL in this will since 2017 but below the historical maximum for this well.
- Benzene, ethylbenzene, total xylenes, and 1,3,5-TMB concentrations in MW-111 increased over at least the three most recent sampling events conducted from October 2018 to June 2020. Benzene increased over the five most recent sampling events, from 0.0216 J mg/L in April 2018 to 0.439 mg/L in June 2020. Ethylbenzene increased over the four most recent sampling events, from not detected above the method detection limit in October 2018 to 0.0408 mg/L in June 2020. Total xylenes increased over the four most recent sampling events, from not detected above the method detection limit in

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October 2018 to 0.0148 J mg/L in June 2020. 1,3,5-TMB increased from not detected above the method detection limit in April 2019 to 0.00436 J mg/L in June 2020. Each is the respective historical maximum concentration for this well. MW-111 was not sampled in October 2020 due to the presence of PSH at a thickness ≥0.03 feet. Benzene concentrations in this well will be reviewed again in 2021.

- Benzene, ethylbenzene, toluene, total xylenes, and naphthalene concentrations in MW-113 have overall increased since April 2019. Concentrations of each of these VOCs decreased from October 2019 to June 2020 and increased in October 2020. However, concentrations of these VOCs remain below their respective historical maximums and October 2019 concentrations. VOC concentrations in this well will be reviewed again in 2021.
- MTBE was detected above the method detection limit for the first time in MW-126A in June 2020 and October 2020. MTBE concentrations increased from not detected above a method detection limit in October 2019 to 0.000248 J mg/L in June 2020 to 0.000502 mg/L in October 2020, which is the historical maximum for this well but several orders of magnitude below the CGWSL.
- MTBE concentrations in MW-130 has overall increased over the five most recent sampling events since October 2018. MTBE concentrations increased from 0.000976 J mg/L in October 2018 to 0.00424 mg/L in June 2020, which is the historical maximum in this well, but decreased to 0.00328 mg/L in October 2020. MTBE concentrations remain at least an order of magnitude below the CGWSL.
- Naphthalene, toluene, and total xylenes concentrations in MW-131 have overall increased since October 2016 but remain below their respective historical maximum concentrations reported in April 2014. Concentrations of o-xylenes and 1,2,4-TMB have overall increased in this well since April 2017 but decreased between October 2019 and June 2020. MW-131 was not sampled in October 2020 due to the presence of PSH at a thickness ≥0.03 feet.
- Benzene was detected above the method detection limit for the first time in MW-135 in October 2020. Benzene concentrations increased from not detected above the method detection limit in June 2020 to 0.00250 mg/L in October 2020, which is the historical maximum for this well but at least an order of magnitude below the CGWSL.
- MTBE was detected in newly installed wells MW-145 and MW-148 at concentrations of 0.000507 J mg/L and 0.000183 J mg/L, respectively, which are several orders of magnitude below the CGWSL. No other VOC was detected above the method detection limit in these wells.

Total Metals, Field East of Refinery

In 2020, groundwater samples were collected from the following wells located in the Field East of Refinery during each 2020 semiannual event for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium):

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- First Semiannual Event (18 wells): KWB-1A, KWB-7, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-111, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-131, MW-134, MW-135, RW-12R, and RW-18A.
- Second Semiannual Event (15 wells): KWB-1A, KWB-7, KWB-8, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-134, and MW-135.

In addition, groundwater samples collected from wells KWB-1A, KWB-7, KWB-11A, KWB-11B, KWB-12A and KWB-12B during both 2020 semiannual events and well KWB-8 during the second 2020 semiannual event were analyzed for the expanded metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium). Total metals results that exceeded their respective CGWSL in Field East of Refinery wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Field East of Refinery	*First Semiannual Event (June 2020)*				
	Arsenic	**0.0100**	18	3	0.0241 (MW-131)
	Barium	**2.00**	18	1	2.39 (MW-131)
	Chromium	**0.0500**	18	1	0.0557 (RW-12R)
	Iron	**1.00**	18	5	9.23 (MW-111)
	Manganese	**0.200**	18	9	2.57 (KWB-7)
	Second Semiannual Event (October 2020)				
	Arsenic	**0.0100**	15	1	0.0157 (MW-57)
	Iron	**1.00**	15	4	6.56 (MW-57)
	Manganese	**0.200**	15	7	2.15 (KWB-7)

As summarized above and highlighted in Table 4B, arsenic, barium, chromium, iron, and manganese were detected in exceedance of their respective CGWSLs in Field East of Refinery wells during at least one 2020 sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 groundwater analytical results of total metals in wells located in the Field East of Refinery were generally consistent with historical results, with the following exceptions:

- Arsenic, cobalt, chromium, iron, lead, and nickel concentrations in KWB-8 increased in October 2020 to historical maximums for this well since at least October 2016. However, only iron exceeded the CGWSL in this well in October 2020. There is limited historical data for this well due to the historical presence of PSH. Total metals concentrations in this well will be reviewed again in 2021.
- Iron concentrations have fluctuated up to an order of magnitude in Field East of Refinery wells over time. Iron concentrations in 2020 were generally consistent with historical results wells except in MRW-18A. Iron concentrations in well RW-18A increased from 0.0191 J mg/L in April 2019 to 3.06 mg/L in June 2020, which is the only CGWSL exceedance in this well since at least April 2017.

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As shown in the COC concentration plots included in Appendix D, concentrations of target COC arsenic in wells located in the Field East of Refinery are overall stable, except in KWB-8, as discussed above. Arsenic concentrations have fluctuated above and below the CGWSL over time in wells KWB-7, KWB-11A, MW-57, MW-58, MW-111, MW-127, and MW-135.

Cyanide, Field East of Refinery

Groundwater samples collected from wells KWB-1A, KWB-7, KWB-11A, KWB-11B, KWB-12A and KWB-12B during both 2020 semiannual events and well KWB-8 during the second 2020 semiannual event were analyzed for cyanide. Cyanide was detected in both the parent and duplicate sample collected from well KWB-12B during the October 2020 sampling event at concentrations of 0.00596 mg/L and 0.0565 mg/L, respectively, which are least an order of magnitude below the CGWSL of 0.200 mg/L. Cyanide was not detected above the method detection limit or the CGWSL in groundwater samples collected from any other Field East of Refinery wells during either semiannual event.

Water Quality Parameters, Field East of Refinery

In 2020, groundwater samples were collected from the following wells located in the Field East of Refinery during each semiannual event for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]):

- First Semiannual Event (20 wells): KWB-1A, KWB-7, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-111, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-131, MW-134, MW-135, RA-4196, RA-4798, RW-12R, and RW-18A.
- Second Semiannual Event (17 wells): KWB-1A, KWB-7, KWB-8, KWB-11A, KWB-11B, KWB-12A, KWB-12B, MW-57, MW-113, MW-125, MW-126A, MW-126B, MW-130, MW-134, MW-135, RA-4196, and RA-4798 .

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples from at least one well within the Field East of Refinery as highlighted in Table 4C. The reported concentrations of these constituents exhibit an overall stable trend, with some seasonal fluctuations between the first and second historical semiannual events, with the following exceptions:

- Sulfate concentrations increased in KWB-8 from 417 mg/L in October 2017 to 1,660 mg/L in October 2020. However, this well has not been sampled since October 2017 due to the presence of PSH at a thickness ≥0.03 feet from April 2018 through June 2020.
- Nitrate/nitrite concentrations in KWB-12B increased from 7.15 mg/L (duplicate sample) in October 2019 to 11.5 mg/L in the parent sample in June 2020 (duplicate sample concentration was 8.27 mg/L).Nitrate/nitrite concentrations in KWB-12B decreased to 6.35 mg/L (parent sample) and 7.25 mg/L (duplicate sample) in October 2020.

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5.3.8 Areas Cross-Gradient and Up-Gradient of Refinery – Analytical Results

Groundwater monitoring is ongoing in areas both cross-gradient and up-gradient of the refinery. Cross-gradient wells KWB-13 (located south of the refinery), and RA-3156 (located southeast of the refinery); and up-gradient wells UG-1, UG-2, UG-3R, and UG-4 (all located to the west of the refinery), were sampled during the first 2020 semiannual event. Cross-gradient well MW-136 (located north of the refinery) was sampled during both 2020 semiannual events. Analytical results of groundwater samples collected from cross-gradient and up-gradient wells in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, Areas Cross-gradient and Up-gradient of Refinery

In 2020, groundwater samples were collected from the following cross-gradient and up-gradient wells during each semiannual event for analysis of DRO and GRO, unless noted otherwise:

- First Semiannual Event (six wells): KWB-13 (DRO only), MW-136, UG-1, UG-2, UG-3R, and UG-4.
- Second Semiannual Event (one well): MW-136.

TPH results that exceeded their respective CGWSL in cross-gradient and up-gradient wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Cross- & Up-Gradient	First Semiannual Event (June 2020)				
	TPH-GRO	**0.0101**	5	2*	0.326 V3 (MW-136)
	TPH DRO	**0.0858**	6	1	0.0924 J (MW-136)
	Second Semiannual Event (October 2020)				
	TPH-GRO	**0.0101**	1	1	0.0320 J (MW-136)
	TPH DRO	**0.0858**	1	1	0.0873 JB (MW-136)

* Method detection limit exceeded CGWSL
J: Indicates an estimated value.
B: Analyte was also detected in the associated method blank.
V3: Biased high due to matrix interference

As shown in Table 4A, GRO and DRO were detected at concentrations in exceedance of the CGWSL during both 2020 semiannual events. As shown in the COC concentration plots included in Appendix D, DRO and GRO concentrations in cross-gradient and up-gradient wells are generally stable over time despite occasional fluctuations, with the following exceptions:

- GRO was detected above the method detection limit for the first time in up-gradient well UG-3R in June 2020 at 0.0421 J mg/L, which is above the CGWSL.
- GRO concentrations in cross-gradient well MW-136 increased from not detected above the method detection limit in April 2019 to 0.0731 JB mg/L in October 2019 to 0.326

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mg/L in June 2020, which is the historical maximum for this well, and decreased to 0.0320 J mg/L in October 2020. The anomalously high result in June 2020 is likely biased high, as the internal standard exhibited poor recovery due to sample matrix interference.

- DRO concentrations in cross-gradient well MW-136 increased from 0.0254 mg/L in October 2019 to 0.0924 J mg/L in June 2020 and 0.0873 JB mg/L in October 2020. The 2020 results were the first exceedances of the CGWSL since October 2017, but they were less than the historical maximum. The October 2020 result may be attributable to laboratory source contributions as DRO was detected in the associated laboratory method blank.

Volatile Organic Compounds, Areas Cross-Gradient and Up-Gradient of Refinery

In 2020, groundwater samples collected from the following cross-gradient and up-gradient wells during each semiannual event were analyzed for VOCs:

- First Semiannual Event (seven wells): KWB-13, MW-136, RA-3156, UG-1, UG-2, UG-3R, and UG-4.
- Second Semiannual Event (one well): MW-136.

No VOCs were detected above their respective CGWSL during either 2020 semiannual event, as shown in Table 4A. The 2020 VOC results for groundwater samples collected from cross-gradient and up-gradient wells were consistent with historical results, except in cross-gradient wells KWB-13 and MW-136, as follows:

- Benzene and ethylbenzene concentrations in KWB-13 increased from not detected above the method detection limits in April 2019 to 0.000205 J mg/L and 0.00234 J mg/L, respectively, in June 2020. However, the 2020 results were less than the method detection limits during previous events and are at least an order of magnitude below their respective CGWSL.
- MTBE was detected above the method detection limit for the first time in MW-136 in October 2020 at 0.000122 J mg/L, which is several orders of magnitude below the CGWSL.

Total Metals, Areas Cross-Gradient and Up-Gradient of Refinery

In 2020, groundwater samples were collected from the following cross-gradient and up-gradient wells during each semiannual event for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium) and the expanded metals list (boron, cadmium, cobalt, mercury, nickel, uranium, and vanadium):

- First Semiannual Event (six wells): KWB-13, MW-136, UG-1, UG-2, UG-3R, and UG-4.
- Second Semiannual Event (one well): MW-136

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Total metal results that exceeded their respective CGWSL in cross-gradient and up-gradient wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
Cross- & Up-Gradient	*First Semiannual Event (June 2020)*				
	Boron	**0.750**	6	1	1.02 (UG-4)
	Iron	**1.00**	7	1	4.41 (KWB-13)
	Uranium	**0.0300**	6	3	0.0639 (MW-136)
	Second Semiannual Event (October 2020)				
	Uranium	**0.0300**	1	1	0.0558 (MW-136)

As summarized above and highlighted in Table 4B, boron, iron, and uranium were detected in exceedance of their respective CGWSLs in cross-gradient and up-gradient wells during at least one 2020 sampling event. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater samples collected from cross-gradient and up-gradient wells were generally consistent with historical results, with the following exceptions:

- Arsenic, barium, cobalt, chromium, iron, lead, manganese, nickel, and vanadium concentrations increased over the four most recent sampling events conducted since April 2017. However, concentrations of all these metals except for iron remain below their respective CGWSL. Iron concentrations have historically exceeded the CGWSL in this well and have fluctuated across the facility.
- Uranium concentrations in UG-1 have increased slightly over the four most recent sampling events from 0.0262 mg/L in April 2017 to 0.0385 mg/L in June 2020. Uranium exceeded the CGWSL of 0.0300 mg/L in April 2019 and June 2020.

Concentrations of target COC arsenic in cross-gradient and up-gradient wells are overall stable despite occasional fluctuations, as shown in the COC concentration plots included in Appendix D.

Cyanide, Areas Cross-Gradient and Up-Gradient of Refinery

Cyanide was not detected above the CGWSL in groundwater samples collected from cross-gradient and up-gradient wells during either 2020 semiannual event.

Water Quality Parameters, Areas Cross-Gradient and Up-Gradient of Refinery

In 2020, groundwater samples were collected from the following cross-gradient and up-gradient wells during each semiannual event for analysis of water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite [as nitrogen]):

- First Semiannual Event (seven wells): KWB-13, MW-136, RA-3156, UG-1, UG-2, UG-3R, and UG-4.

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- Second Semiannual Event (one well): MW-136.

No CGWSLs are applicable for calcium, potassium, or sodium. Chloride, fluoride, nitrate/nitrite, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in cross-gradient and up-gradient wells, as highlighted in Table 4C. The reported concentrations of these constituents in 2020 were consistent with historical results, except nitrate/nitrite in cross-gradient well MW-136. Nitrate/nitrite concentrations in MW-136 increased from 2.38 mg/L in October 2019 to 13.2 mg/L in June 2020 to 14.4 mg/L in October 2020, which is the historical maximum for this well and the first exceedance of the CGWSL since April 2018.

5.3.9 RO Reject Fields – Analytical Results

The reject water from HFNR's RO system was historically discharged to agricultural fields located north of the refinery in accordance with the Discharge Permit, but discharge ceased in January 2019. These areas are referred to as the North and South RO Reject Fields. Groundwater samples were collected from the following six wells during both 2020 semiannual events:

- North RO Reject Field wells: MW-117, MW-118, and MW-119
- South RO Reject Field wells: MW-114, MW-115, and MW-116

Groundwater samples collected from these wells were all analyzed for GRO, DRO, the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium), and water quality parameters (calcium, chloride, fluoride, potassium, sodium, sulfate, TDS, and nitrate/nitrite).

Analytical results of groundwater samples collected from RO Reject Field wells in 2020 indicate COCs are present in groundwater above their respective CGWSLs, as highlighted in Tables 4A through 4C and discussed in the following subsections.

Total Petroleum Hydrocarbons – Diesel Range Organics and Gasoline Range Organics, RO Reject Discharge Fields

In 2020, groundwater samples were collected from wells located in and near the RO Reject Discharge Fields for analysis of TPH DRO and GRO. TPH results that exceeded their respective CGWSL in RO Reject Field wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
North & South RO Fields	*First Semiannual Event (June 2020)*				
	TPH-DRO	**0.0858**	6	3	0.436 (MW-114)
	Second Semiannual Event (October 2020)				
	TPH-DRO	**0.0858**	6	5	0.663 (MW-114)

As summarized above and highlighted in Table 4A, DRO was detected in exceedance its CGWSL in RO Reject Field wells sampled during both 2020 semiannual events.

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As shown in the COC concentration plots included in Appendix D, DRO concentrations in RO Reject Field wells increased over at least one 2020 semiannual sampling event, as follows:

- DRO concentrations in North RO Reject Field wells MW-117 and MW-119 increased from not detected above the method detection limit to exceeding the CGWSL in both June and October 2020. DRO concentrations in MW-117 increased from not detected above the method detection limit in October 2019 to 0.109 mg/L in June 2020 and then decreased slightly to 0.0997 JB mg/L in October 2020. The DRO results in MW-117 during the 2020 events were less than the historical maximum. DRO concentrations in MW-119 increased from not detected above the method detection limit in October 2019 to 0.376 mg/L in June 2020, which is the historical maximum concentration for this well. DRO concentrations then decreased slightly to 0.215 B mg/L in October 2020. However, the reported concentrations in MW-117 and MW-119 in October 2020 may be attributable to laboratory contributions as DRO was detected in the associated laboratory method blanks.
- DRO in well North RO Reject well MW-118 increased from not detected above the method detection limit in June 2020 to 0.0817 JB mg/L in October 2020, which is the historical maximum reported for this well. However, the reported increase is likely attributable to laboratory contributions as DRO was detected in the associated laboratory method blank.
- DRO concentrations in South RO Reject Field wells MW-114 and MW-115 increased from not detected above the method detection limit or below the CGWSL to exceeding the CGWSL in both June and October 2020 (MW-114) or October 2020 (MW-115). DRO concentrations in MW-114 increased from 0.0374 J mg/L in October 2019 to 0.436 mg/L in June 2020 to 0.663 mg/L in October 2020, which is the historical maximum for this well. DRO concentrations in MW-115 increased from not detected above the method detection limit in October 2019 to 0.0430 J mg/L in June 2020 to 0.222 B mg/L in October 2020, which is the historical maximum for this well. However, the reported increase in MW-115 in October 2020 is likely attributable to laboratory contributions as DRO was detected in the associated laboratory method blank.
- DRO concentrations in South RO Reject Field well MW-116 continue to fluctuate above and below the CGWSL.

GRO was not detected in any RO Reject Field well above the method detection limit in either 2020 semiannual event.

Volatile Organic Compounds, RO Reject Discharge Fields

VOCs were not detected above their respective CGWSLs in the six RO Reject Field wells sampled during both 2020 semiannual events. The 2020 VOC results in RO Reject Field wells are consistent with historical results, with the following exceptions:

- MTBE was detected for the first time above the method detection limit in June 2020 and October 2020 in North RO Reject Field well MW-117; however, concentrations remain two orders of magnitude below the CGWSL. MTBE concentrations increased from not

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detected above the method detection limit in October 2019 to 0.000222 J mg/L in June 2020 to 0.00195 mg/L in October 2020.

- MTBE was detected for the first time above the method detection limit in June 2020 and October 2020 in South RO Reject Field wells MW-114 and MW-115; however, concentrations remain at least one order of magnitude below the CGWSL. In well MW-114, MTBE concentrations increased from not detected above the method detection limit in October 2019 to 0.00475 mg/L in June 2020 to 0.0112 mg/L in October 2020. In well MW-115, MTBE concentrations increased from increased from not detected above the method detection limit in October 2019 to 0.00126 mg/L in June 2020 to 0.00364 mg/L in October 2020.

Total Metals, RO Reject Discharge Fields

Groundwater samples were collected from wells located in the North and South RO Reject Fields for analysis of the standard total metals list (arsenic, barium, chromium, iron, lead, manganese, and selenium). Total metal results that exceeded their respective CGWSL in North and South RO Reject Field wells are summarized in the table below:

Area	Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells > CGWSL	Max. Concentration mg/L (Well)
North & South RO Fields	*First Semiannual Event (June 2020)*				
	Manganese	**0.200**	6	1	0.980 (MW-114)
	Second Semiannual Event (October 2020)				
	Manganese	**0.200**	6	1	0.925 (MW-114)

As summarized above and highlighted in Table 4B, manganese was detected in exceedance of its CGWSLs in RO Reject Field wells in one well during both 2020 semiannual events. No other total metal was detected above its respective CGWSL during either semiannual event.

The 2020 analytical results of total metals in groundwater samples collected from RO Reject Field wells were consistent with historical results. Concentrations of target COC arsenic in RO Reject Field wells are overall stable, as shown in the COC concentration plots included in Appendix D.

Cyanide, RO Reject Discharge Fields

Groundwater samples collected from RO Reject Field wells in 2020 were not analyzed for cyanide.

Water Quality Parameters, RO Reject Discharge Fields

Chloride, fluoride, sulfate, and TDS were detected at concentrations in exceedance of their respective CGWSLs in groundwater samples collected from some RO Reject Field wells, as highlighted in Table 4C. The reported concentrations of these constituents in 2020 were generally consistent with historical results. No CGWSLs are applicable for calcium, potassium, or sodium. The 2020 results of these analytes were consistent with historical results.

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5.3.10 Semi Volatile Organic Compounds

In accordance with the SWMU/AOC Group 3 Rev 2 transmittal letter dated December 28, 2018, and NMED's subsequent response letter dated March 22, 2019, groundwater samples from select wells in the vicinity of SWMUs 20 and 22 (North Refinery and TEL wells) were analyzed for SVOCs by EPA Method 8270.

The two required rounds of SVOC analysis were scheduled to be completed during the 2019 semiannual events for wells that are sampled semiannually (MW-23, MW-43, MW-61. MW-62, MW-97, MW-137. MW-138, and TEL-4) and during the first semiannual events in 2019 and 2020 for wells that are sampled annually (MW-93, MW-95, RW-2R). Due to the presence of PSH at thicknesses ≥0.03 feet, groundwater samples were not collected from the following wells in at least one event in 2019 and were to be collected in 2020 in order to satisfy the required two rounds of SVOC sample collection: MW-97, MW-137, MW-138, and RW-2R. However, PSH was measured at a thickness ≥0.03 feet in wells MW-137, MW-138, and RW-2R during both 2020 semiannual events and groundwater samples were not collected for SVOC analysis from these wells. Well MW-97 was not sampled during the first 2020 semiannual event due to the presence of PSH at a thickness ≥0.03 feet and could not be located to gauge or sample during the second 2020 semiannual event due to construction in the area.

Groundwater samples were collected from wells listed below near SWMU 20 and SWMU 22 (North Refinery and TEL wells) during the first 2020 semiannual event for analysis of SVOCs.

- First Semiannual Event (two wells): MW-93 and MW-95.

No groundwater samples were collected for SVOC analysis during the second 2020 semiannual event. SVOC results that exceeded their respective CGWLs are summarized below:

Analyte	CGWSL (mg/L)	No. Wells Sampled	No. Wells >CGWSL	Max. Concentration mg/L (Well)
First Semiannual Event (June 2020)				
1-Methylnaphthalene	0.0300	2	1	0.0340 (MW-93)

As summarized above and highlighted in Table 4D, 1-methylnaphthalene was detected in exceedance of its CGWSLs during the first 2020 semiannual sampling event. No other SVOC was detected above its respective CGWSL.

SVOC sampling will be conducted during the April 2021 sampling event from wells MW-97, MW-137, MW-138, and RW-2R if PSH is not present at thicknesses ≥0.03 feet. All SVOC results will be evaluated in 2021 and recommendations for any future SVOC analysis will be provided in the 2021 annual update to the FWGMWP in June 2021.

5.3.11 Ethylene Dibromide (EDB)

In accordance with the SWMU/AOC Group 3 Rev 2 transmittal letter dated December 28, 2018, and NMED's subsequent response letter dated March 22, 2019, groundwater samples collected from wells with historical detections of 1,2-dichloroethane were analyzed for EDB by EPA Method 8011 in 2019. EDB was analyzed in groundwater samples collected from nine wells

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during one of the 2019 semiannual sampling events and was not detected in any well. Monitoring well KWB-6 had historical detections of 1,2-dichloroethane but was not sampled in 2019 or 2020 due to the presence of PSH at a thickness ≥0.03 feet. Groundwater samples collected from well KWB-6 will be analyzed for EDB in 2021.

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6.0 Remediation System Monitoring

The PCC Permit and Discharge Permit both require recovery of PSH present in the shallow groundwater within and adjacent to the refinery. PSH and impacted groundwater are continually recovered at the refinery from a system of recovery trenches and recovery wells. Additionally, PSH is manually recovered from wells not connected to the recovery system on a periodic basis. A summary of the recovery system, manual recovery activities, and recovery results are summarized in this section.

6.1 Recovery System

The system described below only includes the recovery wells/trenches that have infrastructure installed. Recovery trenches associated with wells RW-9, RW-10, RW-16, RW-17, and RW-18 have not been observed to contain measurable PSH and thus have never been included in a recovery system. RW-11 and RW-12R have not had any measurable PSH since the upgraded system was installed in 2012.

The recovery system consists of automated pumping of PSH and groundwater from recovery wells using dedicated groundwater and PSH pumps (both types of fluid pumps installed in each well). Pumps are installed, operated, and removed from each well based on PSH thicknesses and observed recovery during operation and maintenance (O&M) activities. The pumps are typically operated automatically, with remote data sensing and recording. Recovered PSH is pumped into centralized holding tanks, then pumped to Tank 49, associated with the wastewater treatment system, which then transfers the product to crude tank(s) (Tank 1225 or 437) for processing within the refinery. Recovered groundwater is pumped to the nearest process wastewater sump and directed to the process wastewater treatment system. Thus, recovered PSH is recycled into the refinery process while groundwater is treated to remove residual hydrocarbons.

O&M of the recovery system was conducted throughout 2020 on an approximate weekly basis. O&M activities included gauging recovery wells RW-1R, RW-2R, RW-4R, RW-5R, RW-6R, RW-7R, RW-8R, RW-12R, RW-13R, RW-14R, RW-15, RW-19, RW-20, and RW-22 in order to assess the effectiveness of the recovery system and to determine in which wells to install and operate PSH and groundwater pumps. Recovery system gauging results measured during 2020 O&M activities area summarized in Appendix F. Measurable PSH was not observed in RW-4R and RW-12R during 2020.

6.2 Manual Recovery

PSH was manually removed by bailing or pumping from wells in the Field East of Refinery and South Refinery areas on a periodic basis in 2020. These wells included KWB-8, KWB-10R, MW-111, MW-112, MW-127, MW-128. MW-131, MW-132, and MW-133 in the Field East of Refinery and KWB-4, KWB-5, KWB-6, and MW-107 in the South Refinery. Gauging and manual recovery results are summarized in Table 6.

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Absorbent socks were also installed and replaced throughout 2020 in various area wells including MW-64, MW-65, MW-85, MW-86, MW-99, NCL-34A, KWB-4, KWB-7, KWB-8, KWB-11B, RW-17A, RW-17G, and TEL-3.

6.3 Estimated Volume of Fluids Recovered

Volumes of groundwater and PSH recovered by the recovery system during 2020 are summarized in Table 5 and additional recovery details are provided in Appendix F. An estimated 4,375,556 gallons of groundwater and an estimated 224,098 gallons of PSH were recovered through operation of the automated recovery system in 2020. The majority of recovered PSH during 2020 was from RW-14R (115,839 gallons) and RW-22 (33,299 gallons). Significant volumes of PSH (greater than 5,000 gallons) were also recovered from wells RW-1R, RW-5R, RW-6R, RW-7R, RW-8R, and RW-13R.

Volumes of PSH and groundwater manually recovered during 2020 are summarized in Table 6. An estimated 102 gallons of PSH and 168 gallons of groundwater were manually recovered in 2020. .

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7.0 Conclusions

Conclusions based on the results of groundwater monitoring and remedial activities conducted during 2020 and comparison to historical results are discussed below.

Groundwater flow direction was generally consistent with previous monitoring events with flow predominantly east beneath the refinery and southeast beneath the EPs towards the Pecos River. Localized groundwater sinks are occasionally observed around various recovery wells due to active pumping of groundwater. Mounding at the RO reject fields continues despite cessation of discharge of RO reject water to the RO Reject Fields in January 2019.

The presence and distribution of PSH were generally consistent with previous monitoring results, with some fluctuations. PSH thicknesses across all areas of interest are overall stable to declining over time, with the exception in select wells (KWB-10R, MW-112, MW-127, and MW-128, MW-137, MW-138) located in the Field East of Refinery and North Refinery that are attributed to reductions in groundwater elevations. PSH thicknesses are inversely affected by fluctuations in groundwater elevations, which have generally decreased between 2017 and 2020. Historical minimum groundwater elevations were observed in October 2020 in most of the wells where PSH thicknesses increased during 2020.

Concentrations of COCs in groundwater have generally remained stable over time, although increasing trends were noted in select wells in specific areas of interest. The limited number of increasing COC concentration trends observed since approximately 2011-2014 have generally exhibited stabilizing trends over the most recent sampling events. During 2020 and previous years, the following COCs were detected in groundwater at concentrations in exceedance of their respective CGWSL:

- TPH GRO and DRO
- Select VOCs including target COCs benzene, toluene, ethylbenzene, xylenes, MTBE, and naphthalene
- Select total metals including target COC arsenic
- Water quality parameters chloride, fluoride, sulfate, TDS, and nitrate/nitrite

SVOCs were also detected in groundwater at concentrations in exceedance of their respective CGWLS in samples collected from select wells in the vicinity of SWMUs 20 and 22 (North Refinery wells). SVOC analysis was conducted in 2020 in accordance with the SWMU/AOC Group 3 Rev 2 transmittal letter dated December 28, 2018, and NMED's subsequent response letter dated March 22, 2019.

It should be noted that many of the concentrations of inorganic COCs (manganese, chloride, fluoride, nitrate/nitrite, sulfate, and TDS) depicted as "exceedances" in this report may actually be similar to and reflective of background groundwater concentrations, as detailed in the background evaluation that was submitted to NMED and OCD in September 2015 (Arcadis 2015b).

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The PSH and groundwater recovery system operated throughout 2020. An estimated 4,375,556 gallons of groundwater and an estimated 224,098 gallons of PSH were recovered through operation of the automated recovery system in 2020.

According to the requirements of the updated PCC Permit, an updated FWGMWP will be submitted in June 2021.

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8.0 References

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NMED 2019c. Risk Assessment Guidance for Site Investigations and Remediation. February 2019, Revision 2 6/19/19.

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OCD, 2018a. HollyFrontier Navajo Refining LLC, Artesia Refinery (GW-028) Discharge Permit Modification. October 25, 2018.

OCD, 2018b. Discharge Permit (GW-28) Navajo Refining LLC, Modification Extension Request E-Mail of December 13, 2018, Eddy County, New Mexico. December 14, 2018.

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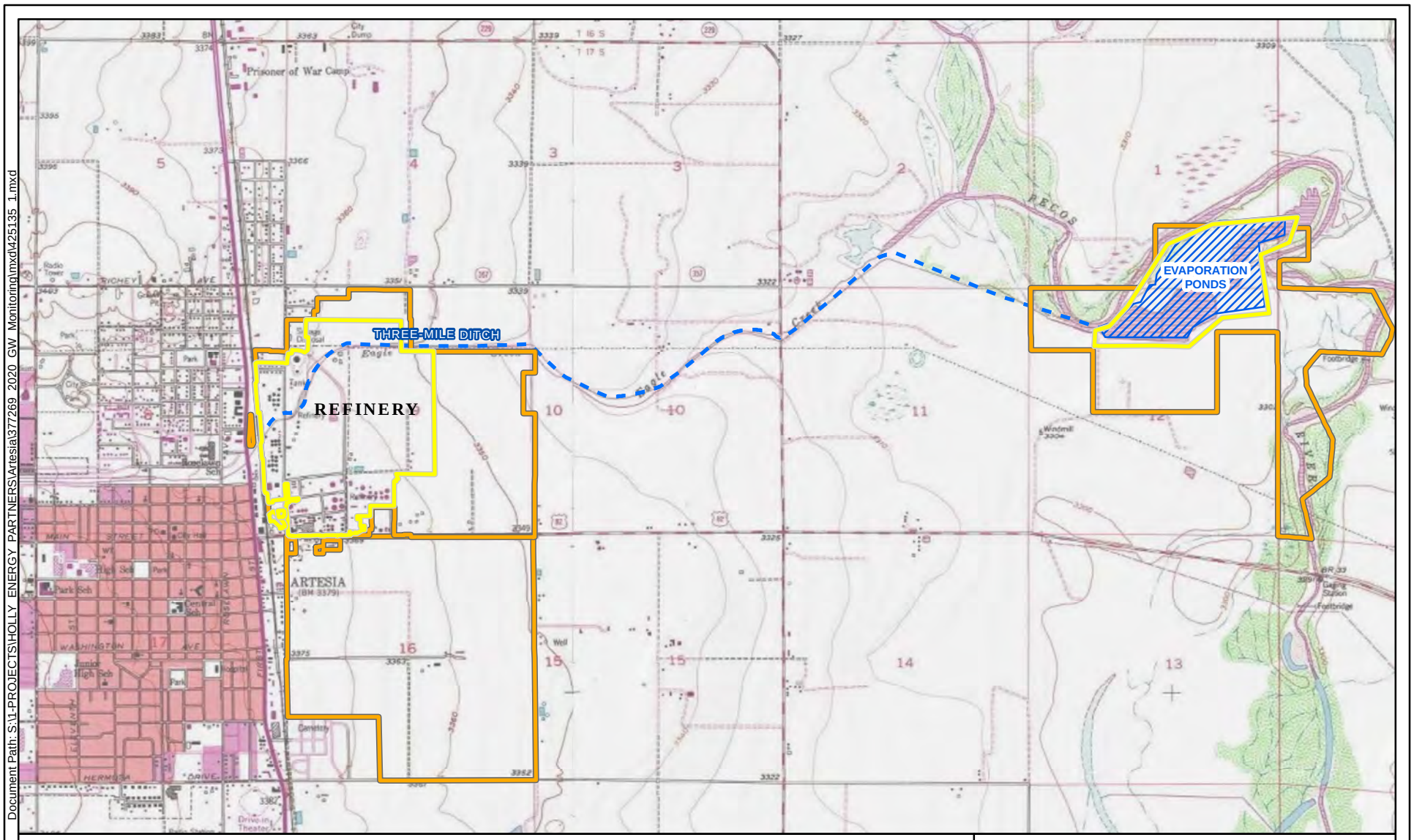
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Figures



LEGEND

- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- THREE-MILE DITCH
- EVAPORATION PONDS

SOURCE: BASE MAP USGS 7.5 MINUTE SERIES QUADS, ARTESIA AND SPRINGLAKE QUADRANGLES, 1955, PHOTOREVISED 1983.

N

0 1,600 3,200
Feet

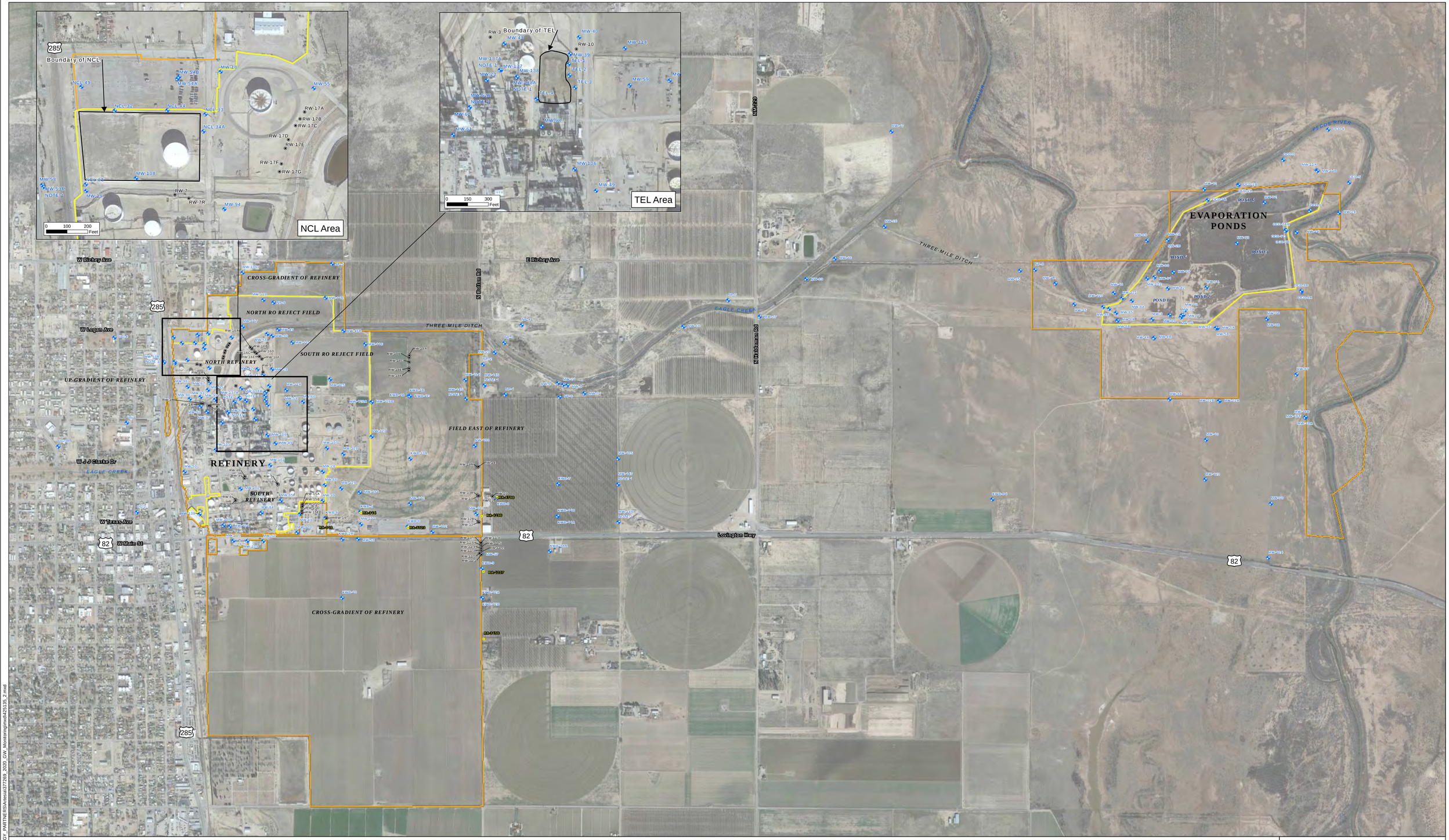
SITE LOCATION MAP

HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

PROJECT NUMBER: 425135	FILE NAME: 425135_1
AUTHOR: SRAY	DATE: 1/26/2021

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 1



LEGEND

- IRRIGATION WELL
- MONITORING WELL
- RECOVERY WELL
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

N W E S

0 800 1,600 Feet

1 IN = 800 FT

NOTE:

1. THE FOLLOWING WELLS WERE INSTALLED IN SEPTEMBER 2020:
   MW-53R
   MW-62R
   MW-137A
   MW-138A
   MW-145
   MW-146
   MW-147
   MW-148

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_2.mxd

WELL LOCATION MAP

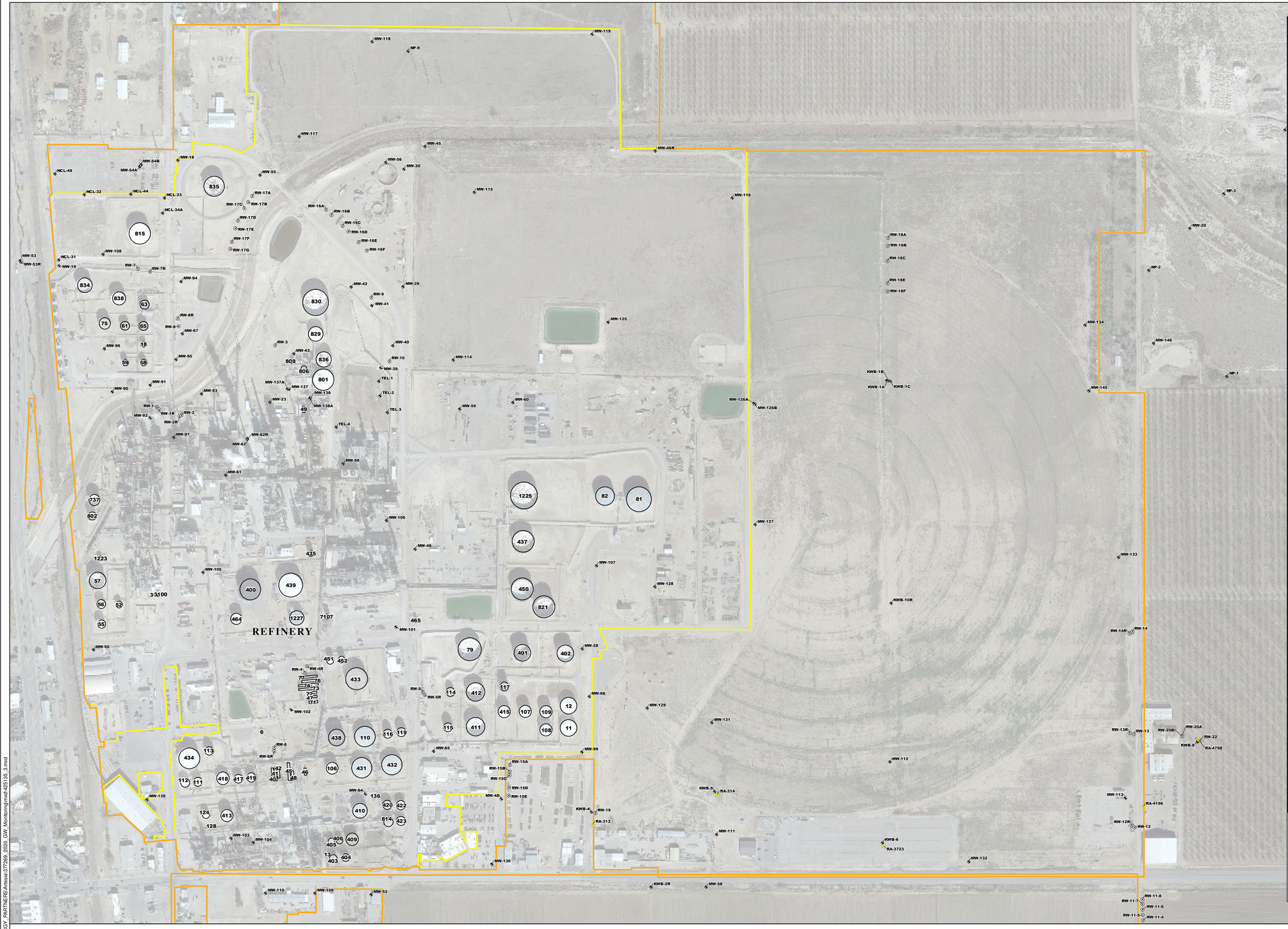
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/3/2021	MXD: 425135_2

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 2

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Tank Number	Location in Relation to AOCs & SWMUs	Diameter (ft)	Height / Length (ft)	Capacity (bbl)	Date Constructed	Contents
6	RW-6 between AOC 3 & AOC 4					Out of Service
11	AOC 3	89	29	31,500	B. 1983	Reformate
12	AOC 3	89	29	31,500	B. 1983	Reformate
13	AOC 8	10	20	250	1990	Slop
18	SWMU 17	29	24	2,250	B. 1979	Out of Service
40	Between AOC 3 & AOC 4	9	72	730	B. 1973	Caustic w/HC
41	Between AOC 3 & AOC 4	9	72	730	B. 1973	Out of Service
42	Between AOC 3 & AOC 4	9	67	700		Wild Naphtha
45	Between AOC 3 & AOC 4	11	90	1,400		Butane
46	Between AOC 3 & AOC 4	12	47	920		Isobutane
47	West of AOC 3	11	36	700		Out of Service
48	Between AOC 3 & AOC 4	11	36	700		Butane
49	Between AOC 14 & SWMU 24	11				Slop
52	AOC 7					Out of Service
55	AOC 7	45	36	10,800	RBLT 1979	Stripped Sour Water
56	AOC 7	48	36	10,800	B. 1976	Desulfurized Naphtha
57	AOC 7	90	49	55,000	1981	Out of Service
58	SWMU 17	35	30	4,700	B. 1979	Out of Service
59	SWMU 17	35	30	4,700	B. 1979	Light Cycle Oil
61	SWMU 17	50	30	9,700	B. 1987	Light Cycle Oil
63	SWMU 17	51	30	10,000	B. 1987	Carbon Black Oil
65	SWMU 17	50	30	10,380	1999	Carbon Black Oil
71	West of AOC 3	10.5	44	714		Propane
72	West of AOC 3	10.5	44	714		Propane
73	West of AOC 3	10	103	1,525		Propane
74	West of AOC	3	10	103	1,525	Propane
75	SWMU 17	65	32	18,900	2003	Carbon Black Oil
76	West of AOC 3	11	79			Propane
77	West of AOC 3	11	79			Propane
79	AOC 3	125	40	70,000	2008	Reformate
81	AOC 6	108.5	40	60,000	2009	Asphalt/Pitch
82	AOC 6	140	40	100,000	2009	Asphalt/Pitch
106	AOC 3	67	40	22,500	B. 1971	Desalter Water
107	AOC 3	67	40	22,500	B. 1971	Isom Gasoline
108	AOC 3	67	40	22,500	1951	Alkylate
109	AOC 3	67	40	22,500	B. 1971	Alkylate
110	AOC 3	108	35	54,000	1929	Asphalt/Pitch
111	AOC 4	49	30	9,100	B. 1981	Gasoline
112	AOC 4	49	30	9,100	B. 1981	Splitter Bottoms
113	AOC 4	48		10,300		Out of Service
114	AOC 3	38		5,100		N-Butane
115	AOC 3	51		12,300		N-Butane
116	AOC 3	48				Isobutane
117	AOC 3	48	48	15,470	1960	Splitter Bottoms
119	AOC 3	51		12,300		Isobutane
124	AOC 4	40	30	6,700	1955	Gasoline
400	AOC 5	120	48	96,786	1983	Gas Oil
401	AOC 3	90	50	55,000	1982	Isom Gasoline
402	AOC 3	90	50	55,000	1983	Light Cat Naphtha
403	AOC 8	45	36	8,250		Removed
404	AOC 8	45	36	8,250		Removed
405	AOC 8	37	28	4,575		Removed
406	AOC 8	38	28	5,400		Removed
409	AOC 8	67	40	21,450		Removed
410	AOC 8	79	40	30,850	B. 1973	Asphalt/Pitch
411	AOC 3	100	40	52,000	1951	Isom Gasoline
412	AOC 3	100	40	52,000	1951	Splitter Bottoms
413	AOC 4	67	39	22,500	about 1960	Raw Kerosene
415	AOC 3	67	40	25,000	1953	Alkylate
417	AOC 4	50	30	9,300	B. 1981	Gasoline
418	AOC 4	67	33	25,000	B. 1987	Raw Kerosene
419	AOC 4	53	28	10,300	B. 1981	Diesel
420	AOC 8	50	30	8,200	B. 1989	Fuel Oil
422	AOC 8	50	30	8,200	B. 1973	Heavy Light Cycle Oil
423	AOC 8	50	30	8,200	B. 1970	Heavy Light Cycle Oil
431	AOC 3	109	32	45,800	B. 1984	Fuel Oil
432	AOC 3	109	32	45,800	B. 1973	Fuel Oil
433	AOC 3	117	42	72,500	B. 1984	Gas Oil
434	AOC 4	117	42	7,600	1979	Raw Diesel
435	AOC 5	30	40	5,000	Reloc. 1997	Sour Water
437	AOC 6	120	45	80,000	1976/2009	Crude Oil
438	AOC 3	90	48	54,500	1978	Gas Oil
439	AOC 5	130	46	107,900	1978	Naphtha
450	AOC 3	120	40	80,570	1997	Naphtha
451	AOC 3	35	40	6,800	2015	Diesel
452	AOC 3	35	40	6,800	2015	Ethanol
464	AOC 5	60	40	20,000	2016	RO Permeate
465	North of AOC 3					Fresh Water
737	AOC 7	63	40	20,000	2009	Sour Water
801	AOC 9	110	32	54,000	1987	Wastewater
802	AOC 7	45	40	10,000	2002	Sour Water
806	AOC 11	30	7	800		Separator (OOS)
809	West of AOC 11	20	16	850	1954	Treated Wastewater
814	AOC 8	50	32	10,000	2005	Asphalt/Pitch
815	SWMU 6	116	43	90,000	2005	Diesel
821	AOC 3	105	40	65,000	2016	Light Cat Naphtha
829	North of AOC 9	106	40	30,500	2015	Wastewater
830	North of AOC 9	140	40	100,000	2011	Stormwater
834	AOC 1	85	40	40,000	1967	Diesel
835	Northeast of SWMU 6	111	40	68,000		Diesel
836	AOC 9	82.5	32	30,460	1998	Wastewater
838	AOC 1	74	40	29,900		Diesel
1223	AOC 7	25	24	2,000	2002	Caustic
1225	AOC 6	150	40	100,000	2009	Crude Oil
1227	AOC 5	77	40	30,000	2009	Asphalt/Pitch
7107	East of AOC 5	25	40	3,300	2015	Treated Wastewater

TANK TABLE NOTES:
AOC = Area of Concern
SWMU = Solid Waste Management Unit
ft = feet
bbl = barrels
B. = Before date shown, actual date unknown
RBLT = Rebuilt date shown
w/HC = with hydrocarbon
RO = Reverse Osmosis
OOS = Out of Service

LEGEND

- IRRIGATION WELL
- MONITORING WELL
- RECOVERY WELL
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- TANK

N W E S

0 250 500
Feet

1 IN = 250 FT

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 3/12/2016.

NEW MEXICO

WELL LOCATIONS AND TANK INFORMATION WITHIN REFINERY

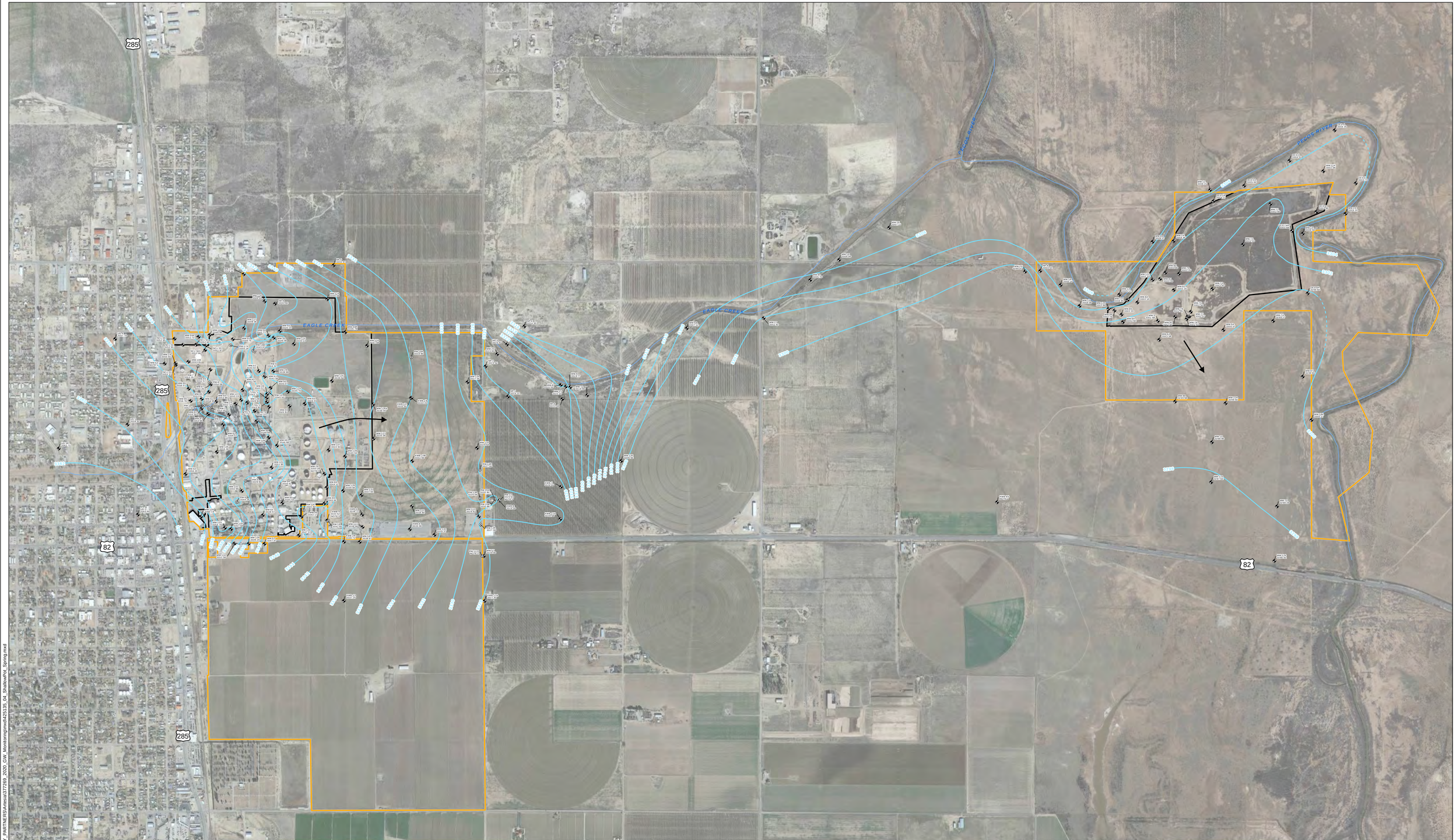
2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHOFN	SAVED: 2/26/2021	MXD: 425135_3

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FIGURE 3

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LEGEND

- MONITORING WELL
- RECOVERY WELL
- GROUNDWATER FLOW DIRECTION
- SHALLOW SATURATED ZONE POTENTIOMETRIC SURFACE CONTOURS - DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER ELEVATION DEPRESSED LOCALLY DUE TO RECOVERY PUMP
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- 3337.25 GROUNDWATER ELEVATION (FEET)

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NOTE:
1. GROUNDWATER ELEVATION WAS NOT MEASURED BECAUSE WELL IS NOT IN GAUGING PROGRAM, WELL COULD NOT BE LOCATED, OR WELL WAS DAMAGED.
2. WELL WAS DRY AT TIME OF GAUGING.
3. GROUNDWATER ELEVATION NOT USED IN POTENTIOMETRIC SURFACE CONTOURING.



SHALLOW SATURATED ZONE POTENTIOMETRIC SURFACE MAP 2020 FIRST SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

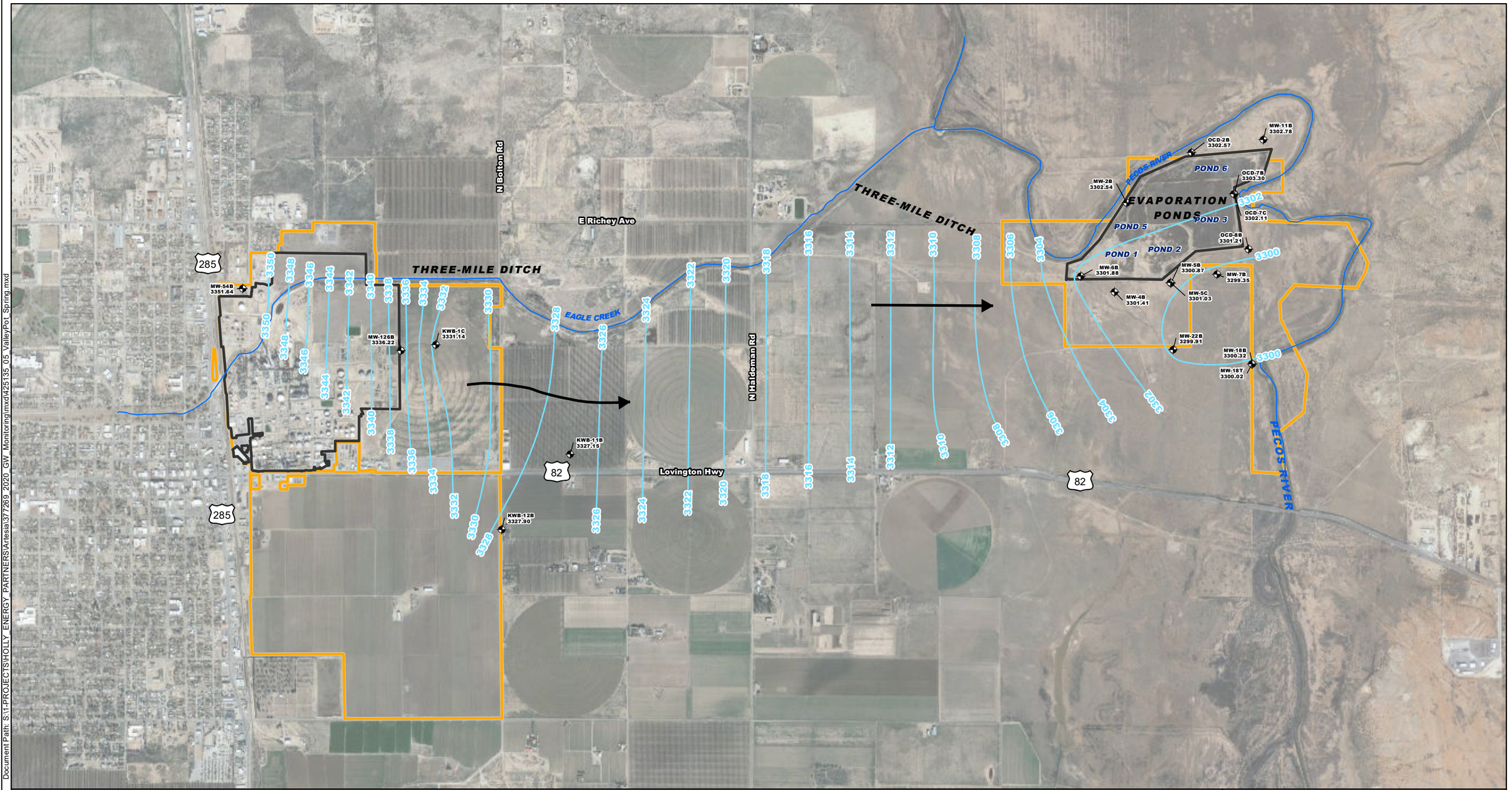
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FIGURE 4

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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LEGEND

- MONITORING WELL
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- GROUNDWATER FLOW DIRECTION
- **3327.90** GROUNDWATER ELEVATION (FEET)
- VALLEY FILL ZONE POTENTIOMETRIC SURFACE CONTOURS (FEET ABOVE MEAN SEA LEVEL)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

N W E S

0 2,000 4,000
Feet

1 inch = 2,000 feet

NEW MEXICO

VALLEY FILL ZONE
POTENTIOMETRIC SURFACE MAP
2020 FIRST SEMIANNUAL EVENT

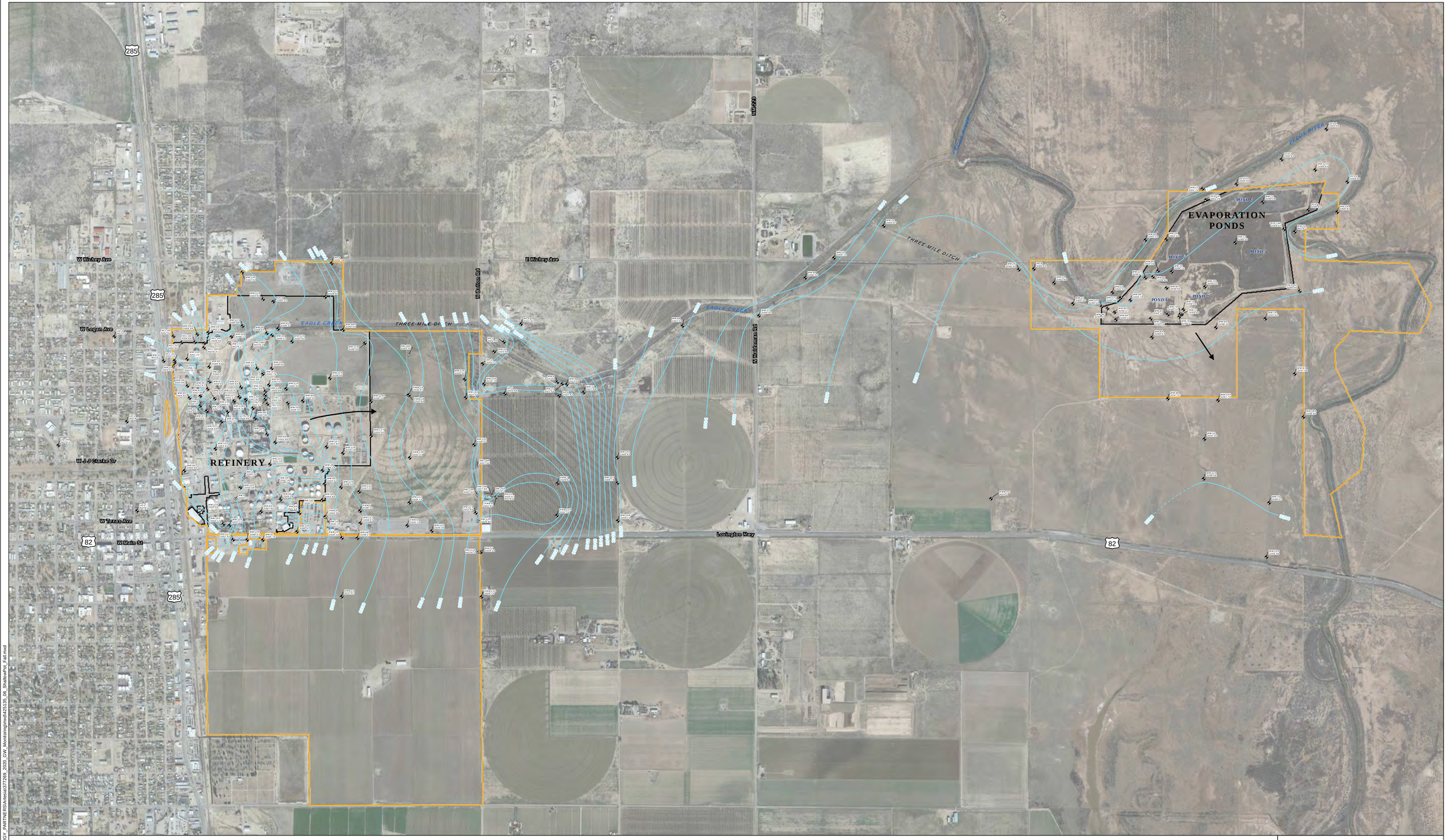
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HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_05_ValleyPot_Spring

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FIGURE 5

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LEGEND

- MONITORING WELL
- RECOVERY WELL
- GROUNDWATER FLOW DIRECTION
- SHALLOW SATURATED ZONE POTENTIOMETRIC SURFACE CONTOURS - DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER ELEVATION DEPRESSED LOCALLY DUE TO RECOVERY PUMP
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- 3337.67 GROUNDWATER ELEVATION (FEET)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

N
W E
S

0 800 1,600
Feet

1 IN = 800 FT

NOTE:
1. GROUNDWATER ELEVATION WAS NOT MEASURED BECAUSE WELL IS NOT IN GAUGING PROGRAM, WELL COULD NOT BE LOCATED, OR WELL WAS DAMAGED.
2. WELL WAS DRY AT TIME OF GAUGING.
3. GROUNDWATER ELEVATION NOT MEASURED DUE TO PUMP INSTALLED IN WELL.
4. GROUNDWATER ELEVATION NOT AVAILABLE DUE TO PSH IN WELL TO TOTAL DEPTH.
5. GROUNDWATER ELEVATION NOT USED IN POTENTIOMETRIC SURFACE CONTOURING



SHALLOW SATURATED ZONE POTENTIOMETRIC SURFACE MAP 2020 SECOND SEMIANNUAL EVENT

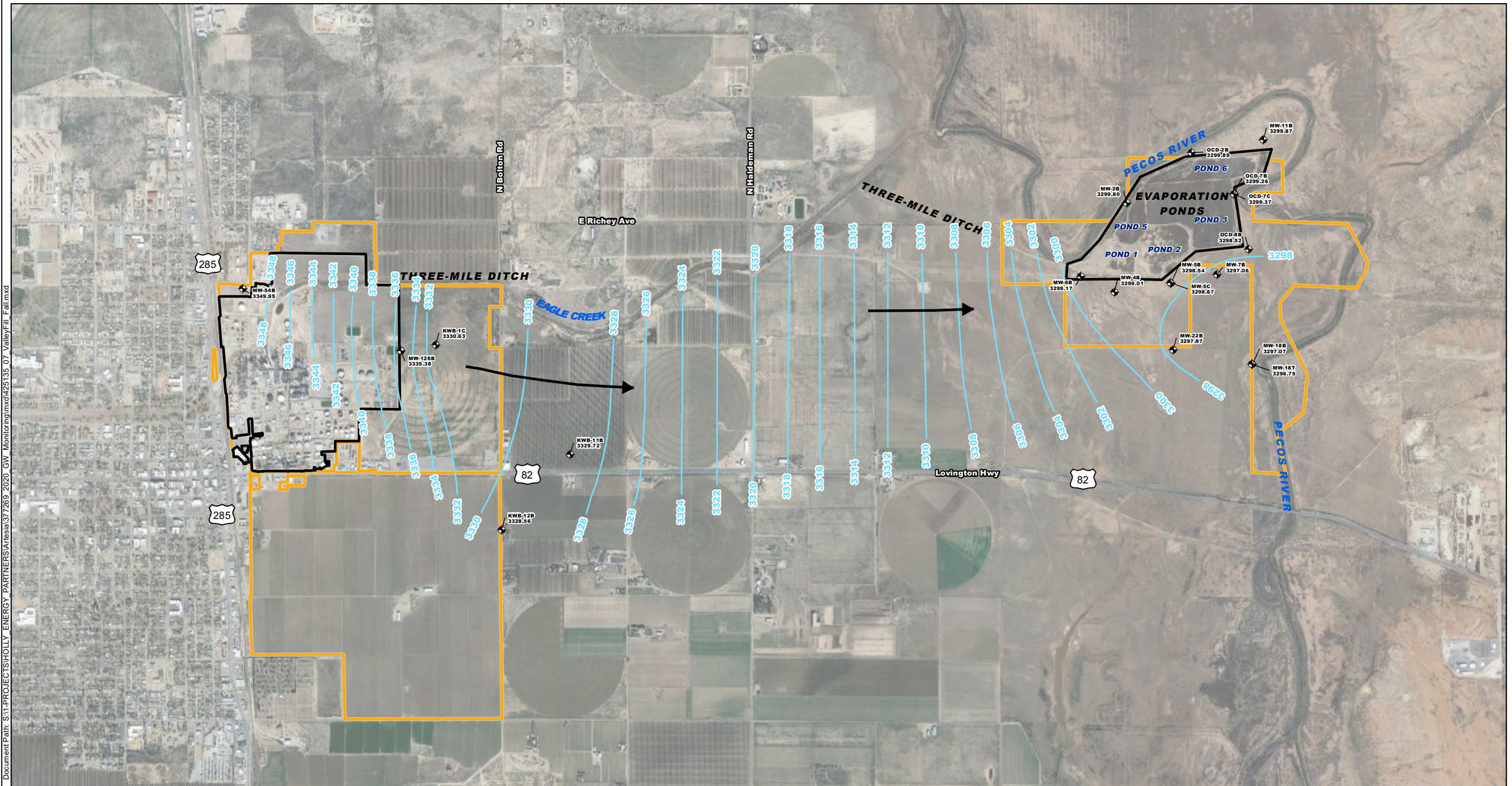
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HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_06_ShallowPot_Fall

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FIGURE 6

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LEGEND

- MONITORING WELL
- FENCELINE
- NAVAJO PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- GROUNDWATER FLOW DIRECTION
- 3333.00 GROUNDWATER ELEVATION (FEET)
- VALLEY FILL ZONE POTENTIOMETRIC SURFACE CONTOURS (FEET ABOVE MEAN SEA LEVEL)

N W E S

0 2,000 4,000
Feet

1 inch = 2,000 feet

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

VALLEY FILL ZONE
POTENTIOMETRIC SURFACE MAP
2020 SECOND SEMIANNUAL EVENT

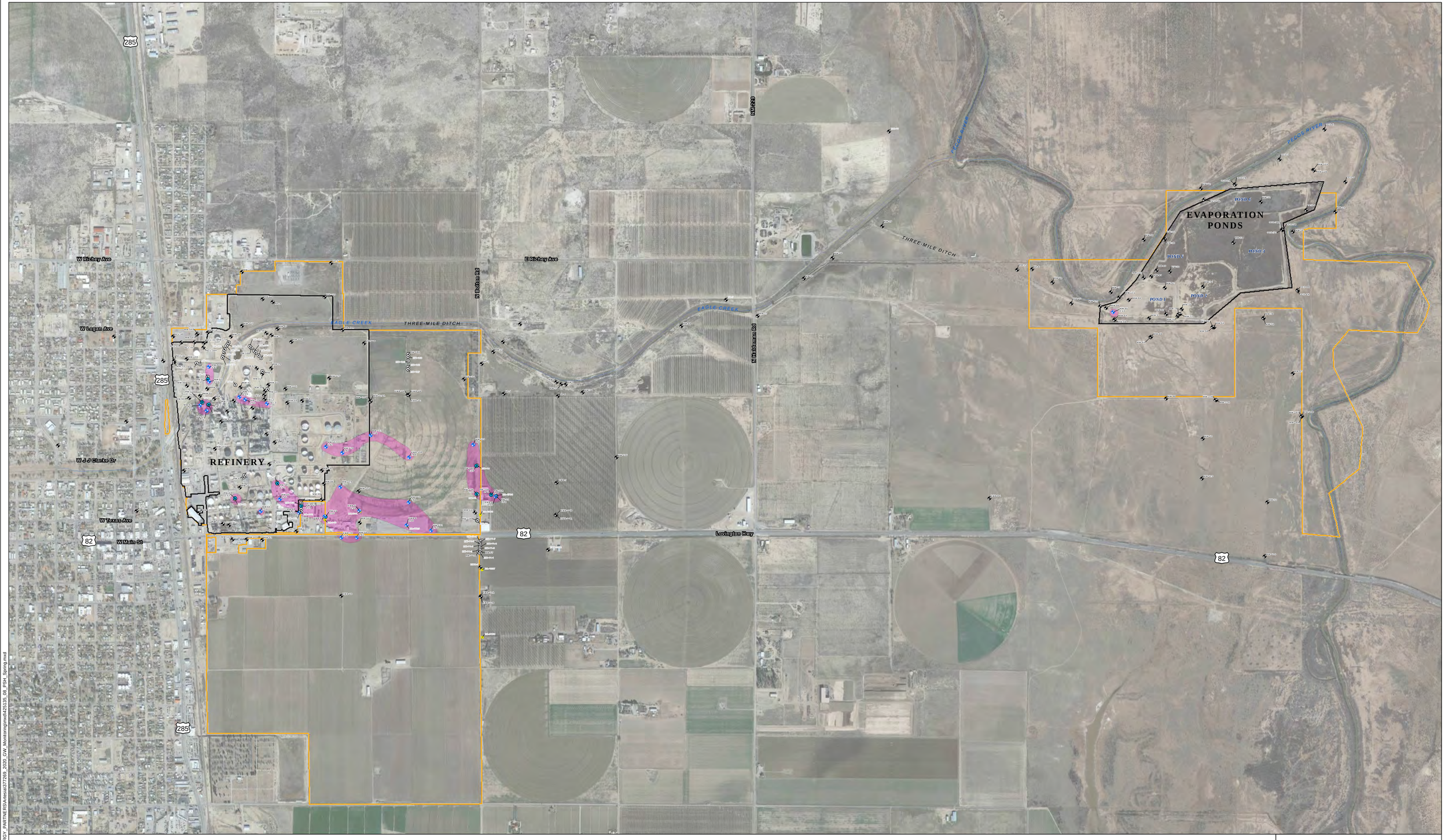
2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/5/2021	MXD: 425135_07_ValleyFill_Fall

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FIGURE 7

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LEGEND

- RECOVERY WELL
- MONITORING WELL
- IRRIGATION WELL
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

WELLS WITH PSH

- MONITORING WELL
- RECOVERY WELL
- RW-1 0.71 PSH THICKNESS
- RW-15A WELL NOT GAUGED

PSH THICKNESS IN FEET

- 0.01 - 6.26 FEET

NOTE:

1. ALL PHASE-SEPARATED HYDROCARBON (PSH) THICKNESSES PROVIDED IN FEET.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

PHASE-SEPARATED HYDROCARBON THICKNESS MAP
2020 FIRST SEMIANNUAL EVENT

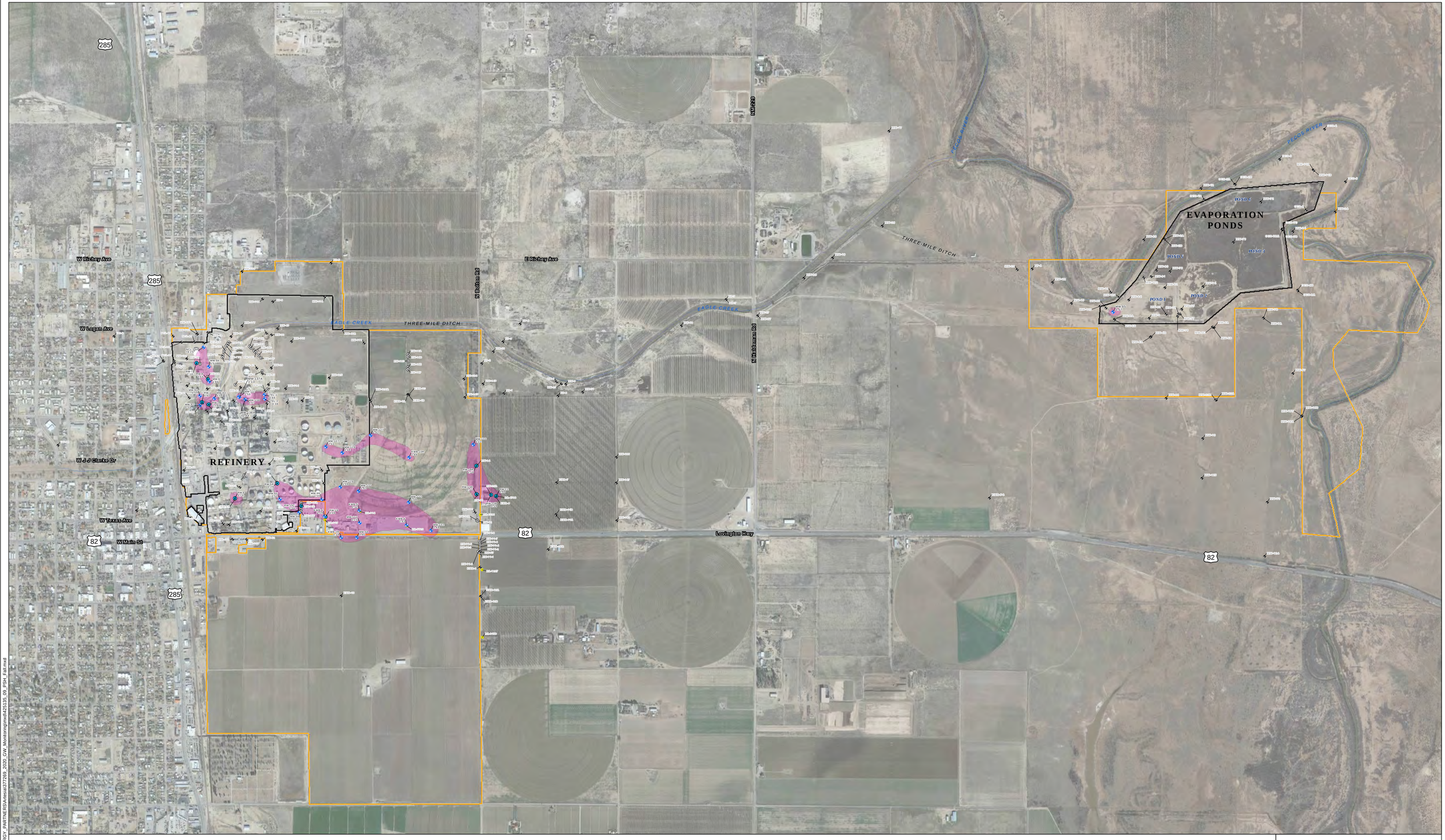
2020 ANNUAL GROUNDWATER REPORT
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FIGURE 8

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LEGEND

- RECOVERY WELL
- MONITORING WELL
- IRRIGATION WELL
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

WELLS WITH PSH

- MONITORING WELL
- RECOVERY WELL
- MW-85 0.57 PSH THICKNESS
- MW-28 WELL NOT GAUGED

PSH THICKNESS IN FEET

- 0.01 - 5.51 FEET

NOTE:

1. ALL PHASE-SEPARATED HYDROCARBON (PSH) THICKNESSES PROVIDED IN FEET.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

PHASE-SEPARATED HYDROCARBON THICKNESS MAP
2020 SECOND SEMIANNUAL EVENT

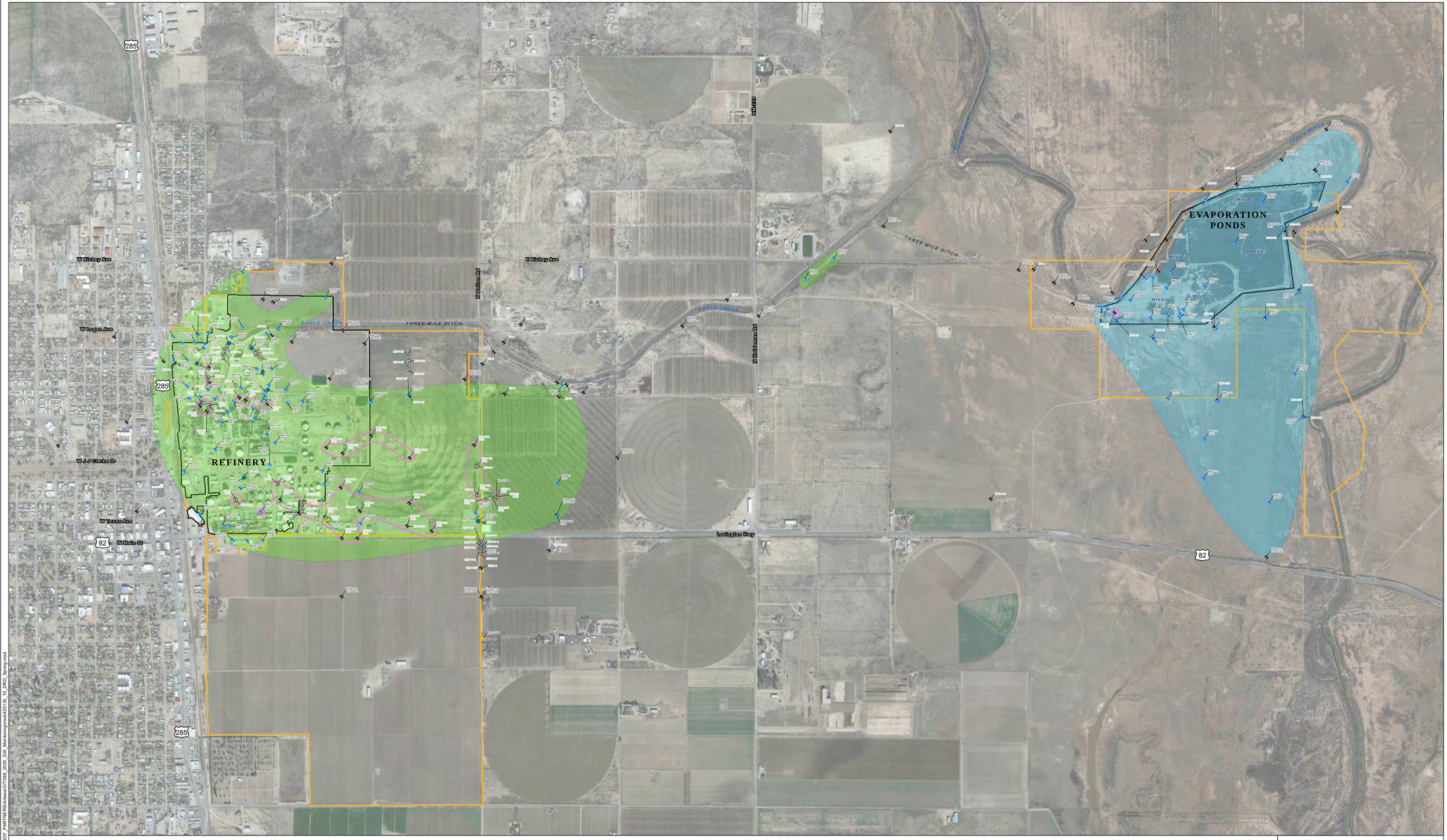
2020 ANNUAL GROUNDWATER REPORT
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ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_09_PSH_Fall

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FIGURE 9

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL
- 7.98 DRO CONCENTRATION
- <0.0247 DRO NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-11B WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.0858 mg/L)
- DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA, EVAPORATION PONDS (CONCENTRATION > 0.0167 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. DRO = DIESEL RANGE ORGANICS
3. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

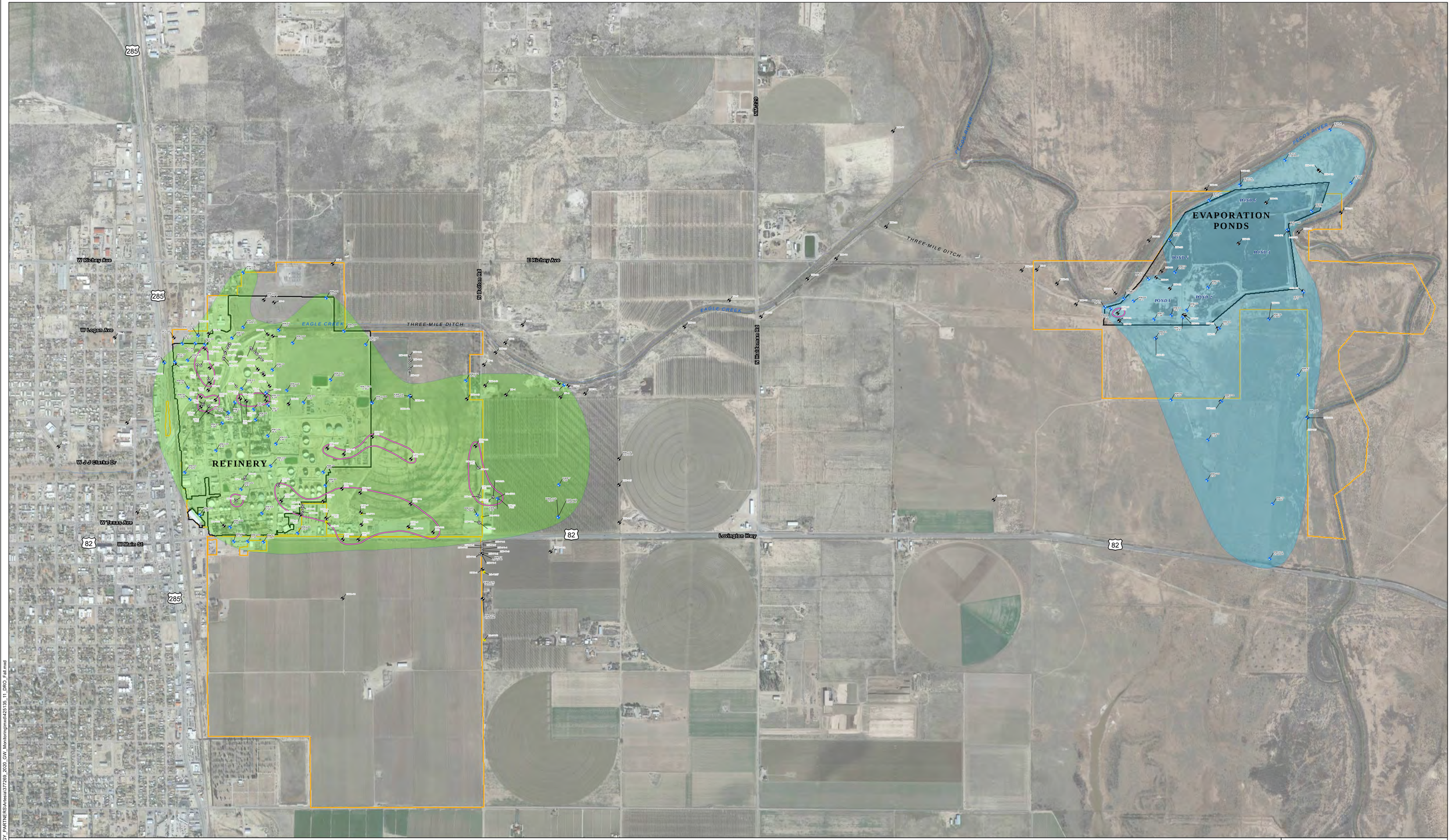
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FIGURE 10

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL
- 2.21 DRO CONCENTRATION

- <0.0247 DRO NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-129 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.0858 mg/L)
- DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA, EVAPORATION PONDS (CONCENTRATION > 0.0167 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. DRO = DIESEL RANGE ORGANICS
3. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

DRO CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

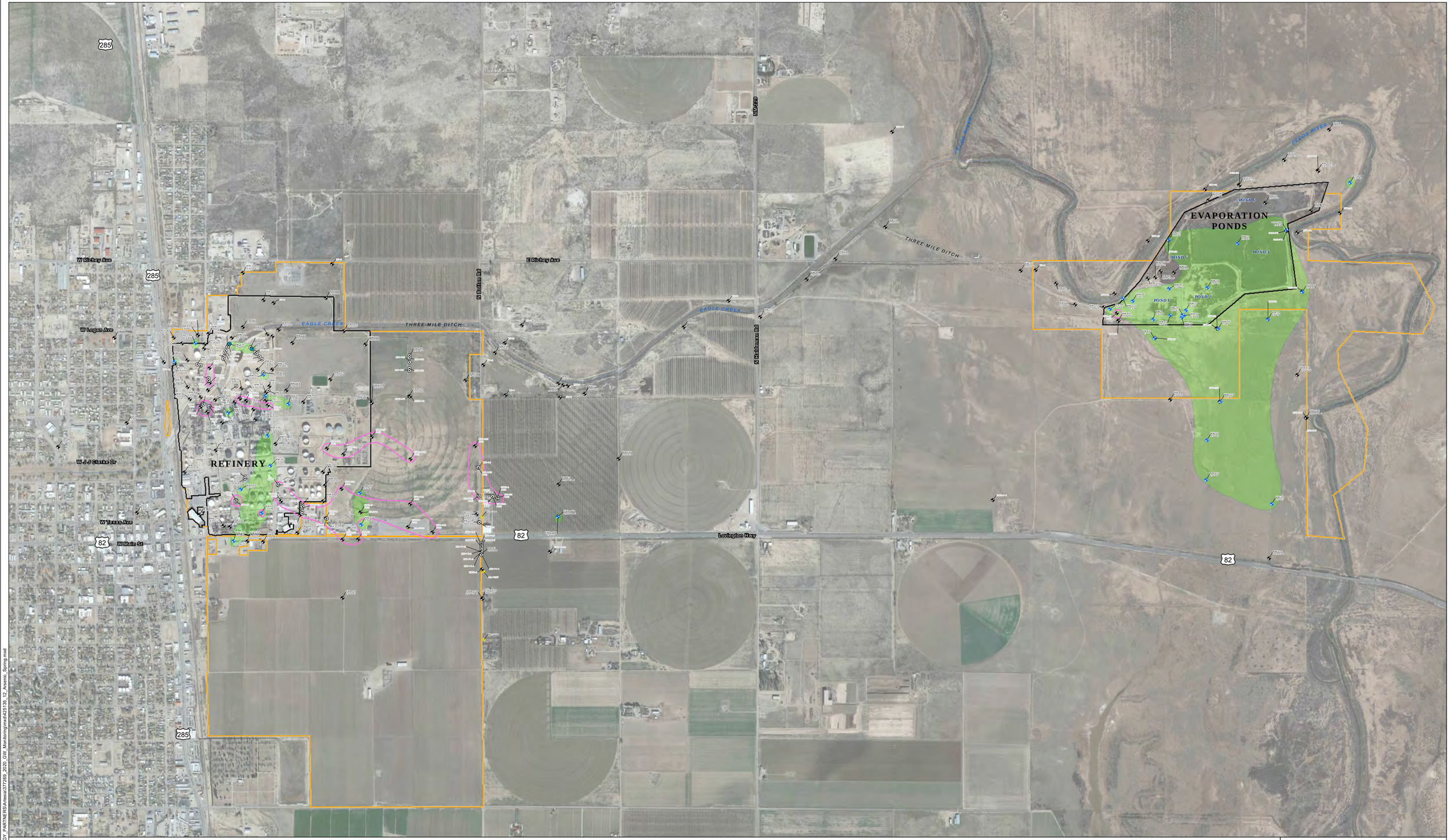
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AUTHOR: MHORN	SAVED: 2/3/2021	MXD: 425135_11_DRO_Fall

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FIGURE 11

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

- 0.0151 ARSENIC CONCENTRATION
- < .00368 ARSENIC NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥0.03 FEET THICK)
- ARSENIC CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.01 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 750 1,500
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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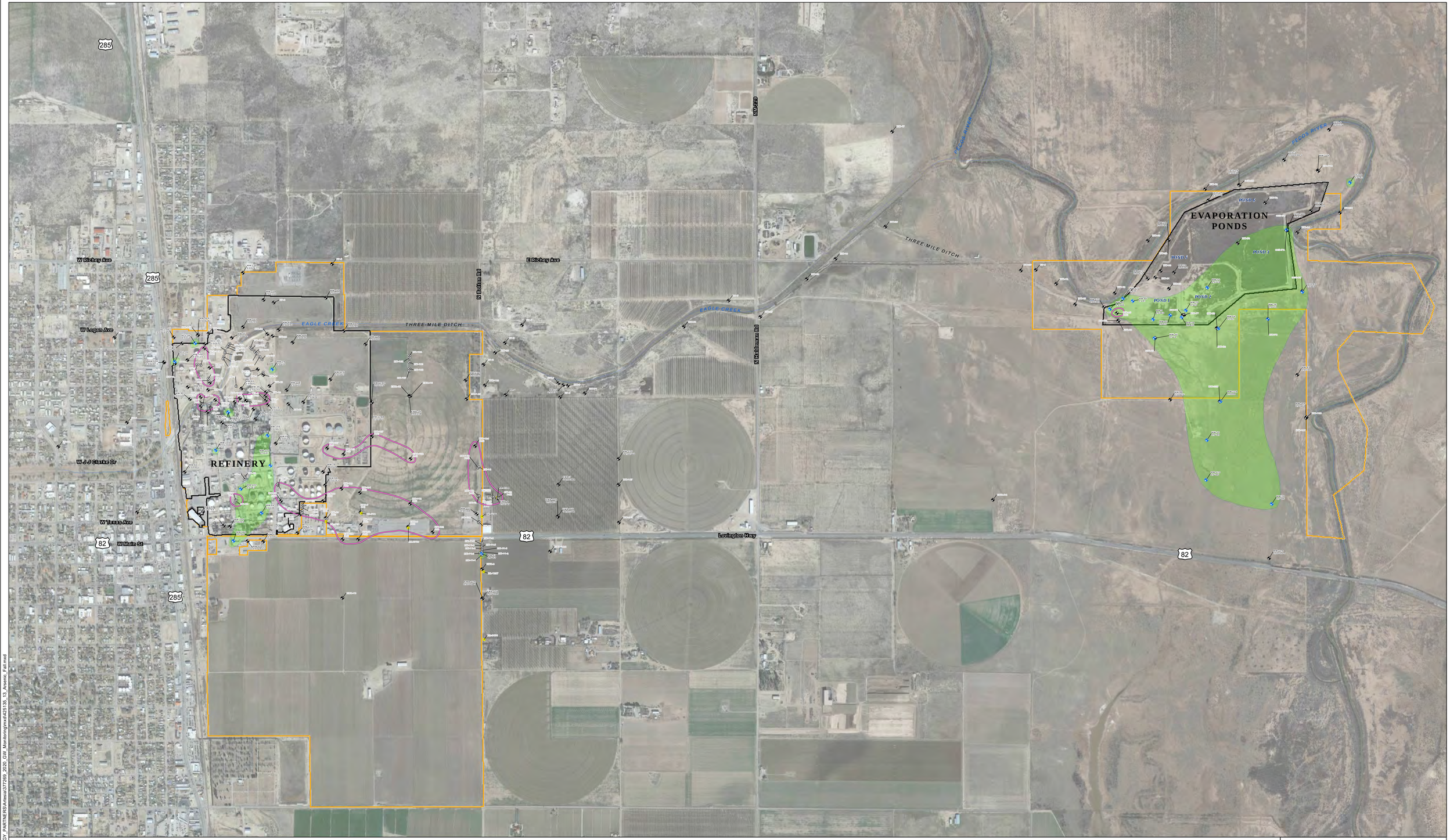
ARSENIC CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

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ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

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FIGURE 12



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 0.0249 ARSENIC CONCENTRATION
- < .00368 ARSENIC NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥0.03 FEET THICK)
- ARSENIC CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.01 mg/L)
- FENCELINE

- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 3/12/2016.

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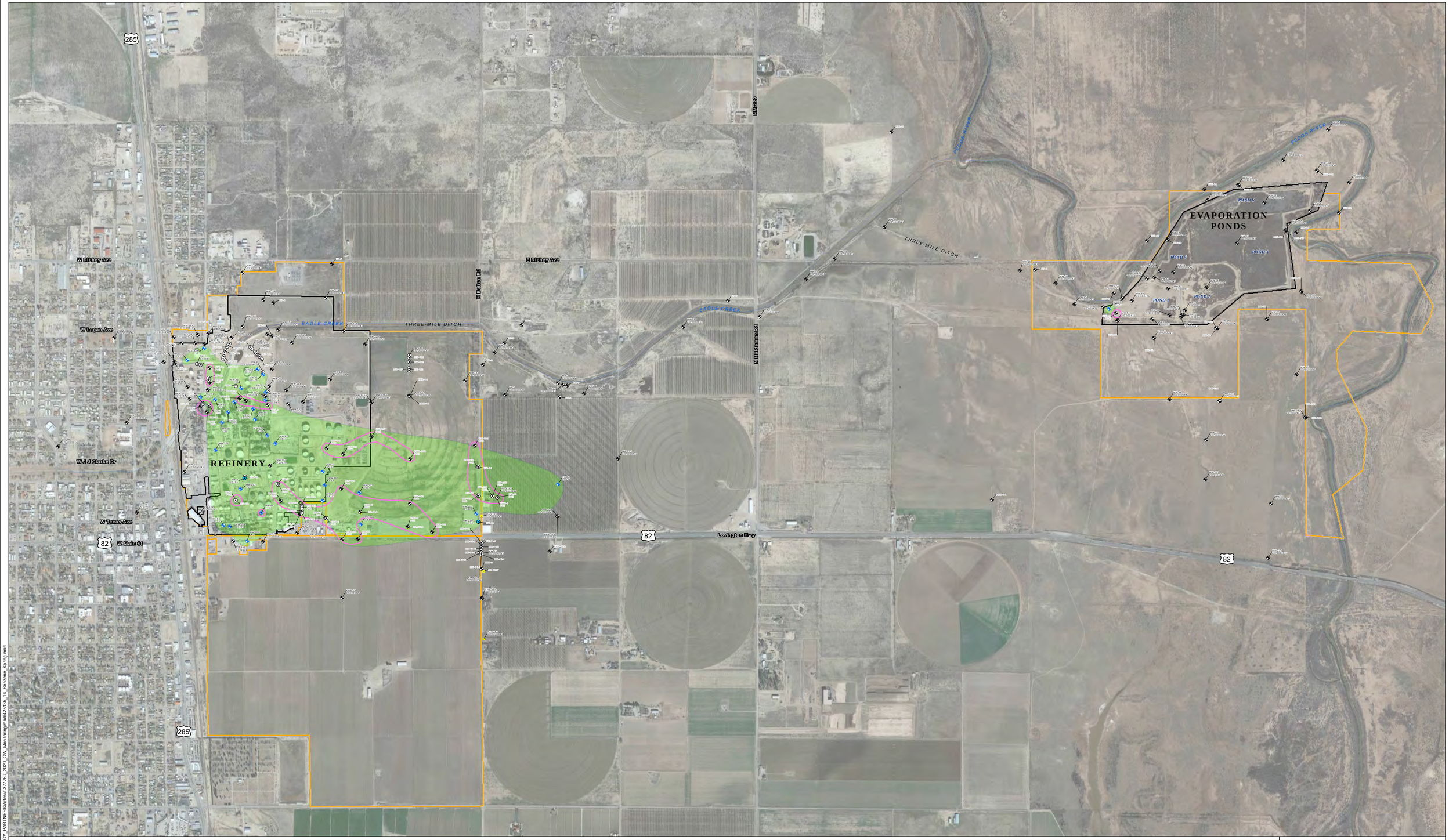
ARSENIC CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
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FIGURE 13



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

- 1.59 BENZENE CONCENTRATION
- <0.00331 BENZENE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- BENZENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.005 mg/L)
- FENCELINE

- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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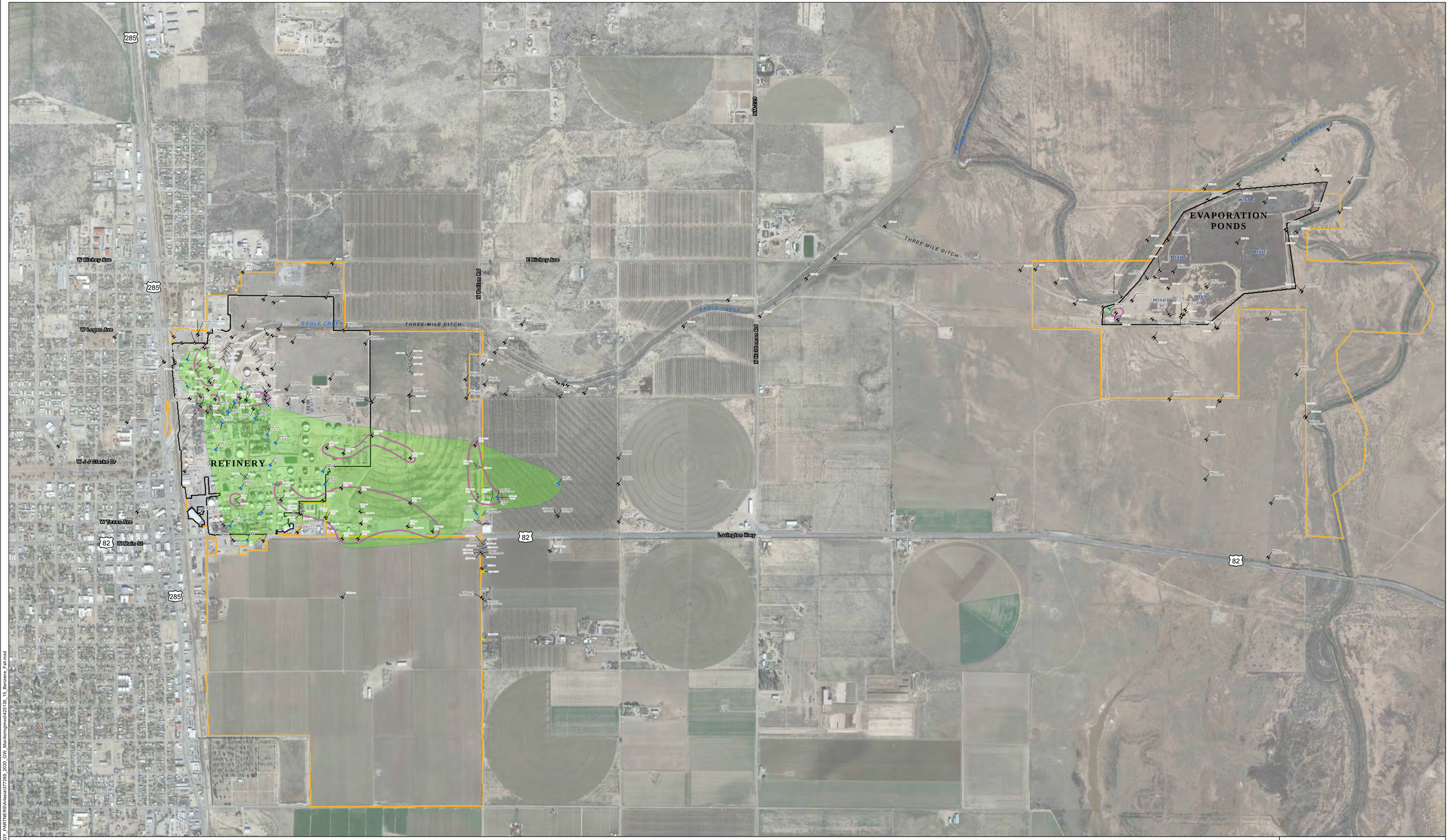
BENZENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_14_Benzene_Spring

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FIGURE 14



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 2.32 BENZENE CONCENTRATION
- <0.000331 BENZENE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-111 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- BENZENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.005 mg/L)
- FENCELINE

- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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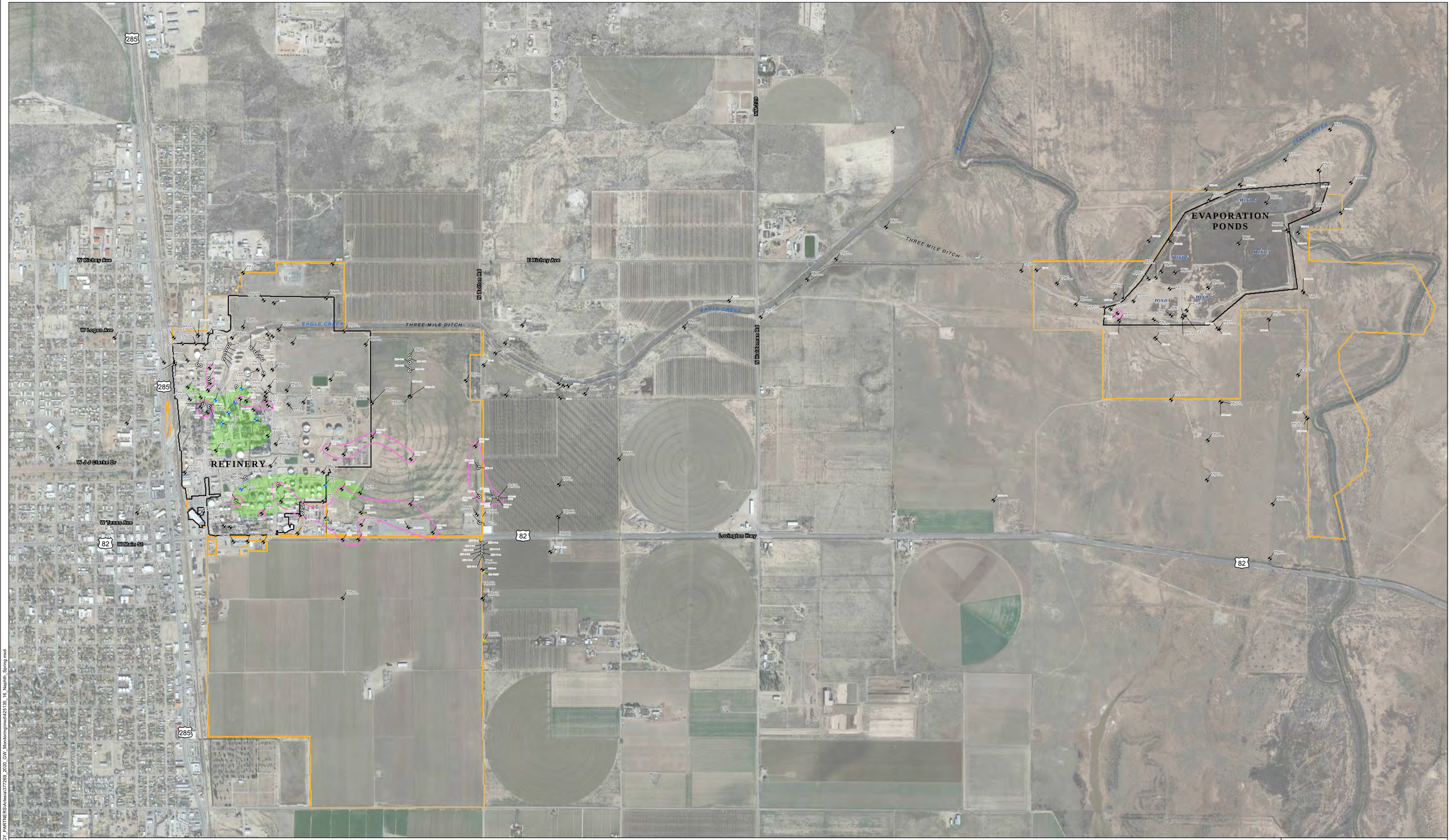
BENZENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_15_Benzene_Fall

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FIGURE 15



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

- 0.178 NAPHTHALENE CONCENTRATION
- <0.00100 NAPHTHALENE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- NAPHTHALENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.03 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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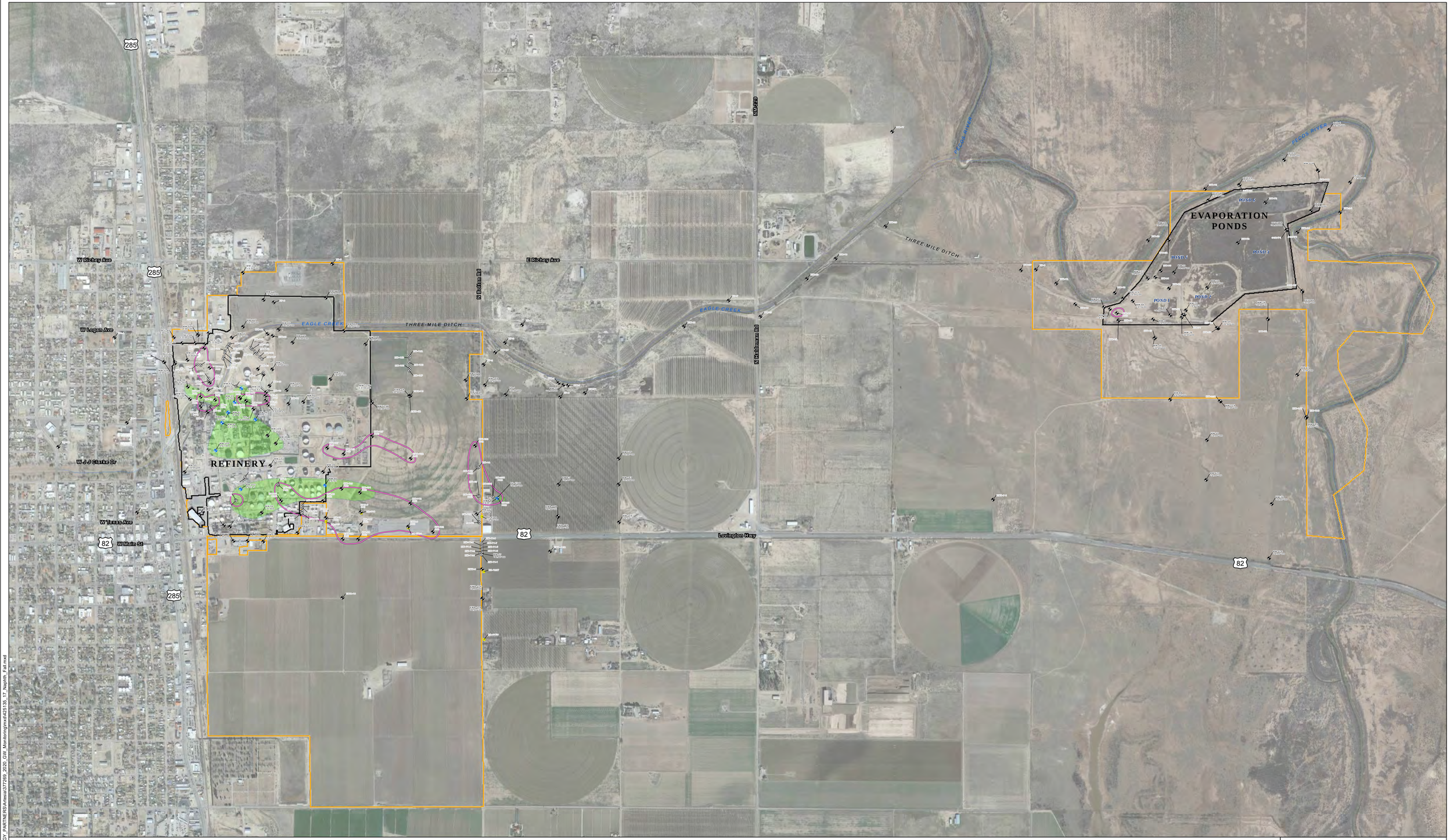
NAPHTHALENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_16_Naphth_Spring

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FIGURE 16



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 0.116 NAPHTHALENE CONCENTRATION
- < 0.00100 NAPHTHALENE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- KWB-13 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- NAPHTHALENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.03 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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NAPHTHALENE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

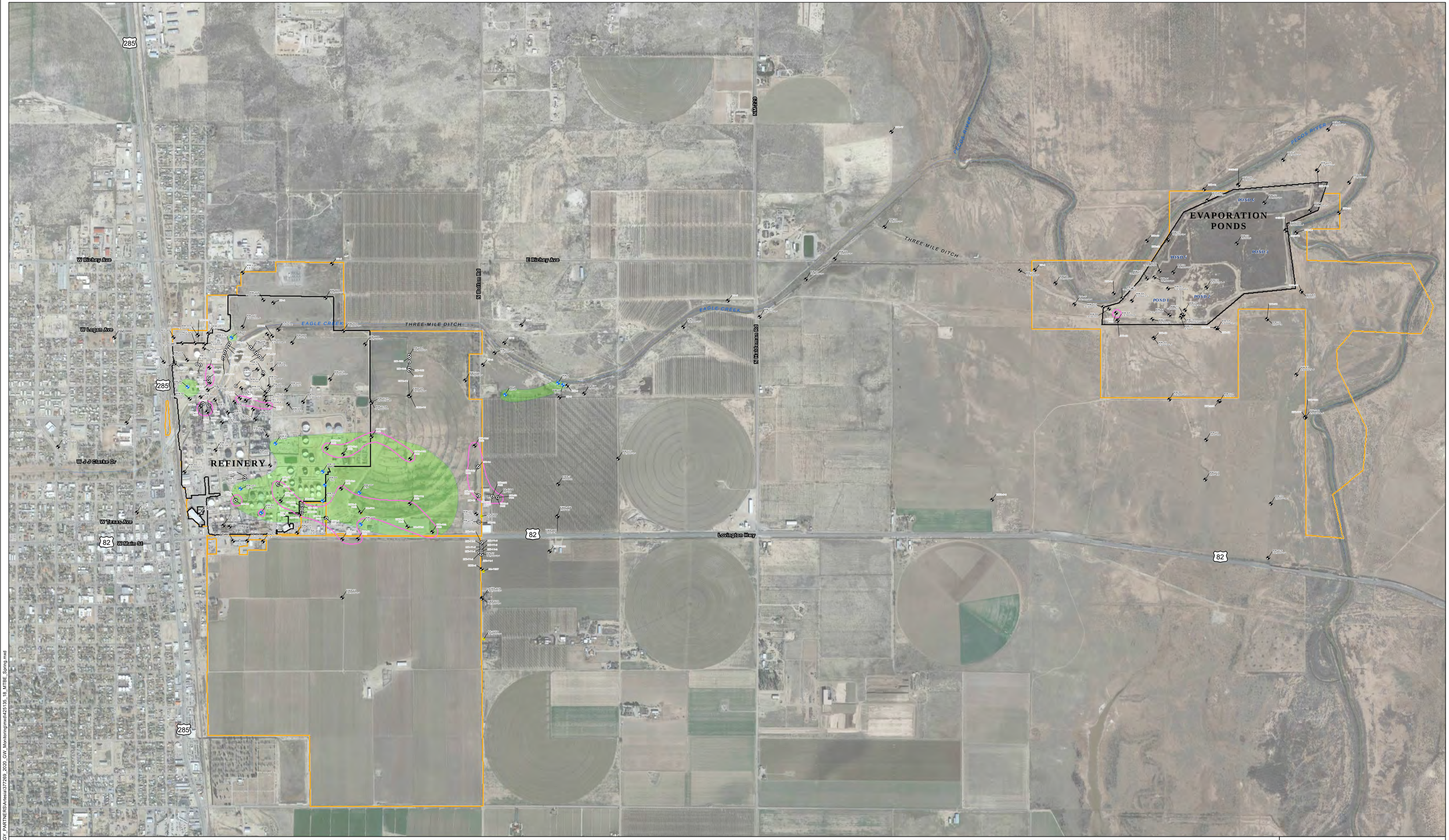
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FIGURE 17

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

- 1.79 MTBE CONCENTRATION
- <0.000367 MTBE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- MTBE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.1 mg/L)
- FENCELINE

- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.
3. MTBE = METHYL TERT-BUTYL ETHER

N W E S

0 800 1,600
Feet

1 IN = 800 FT

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AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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MTBE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

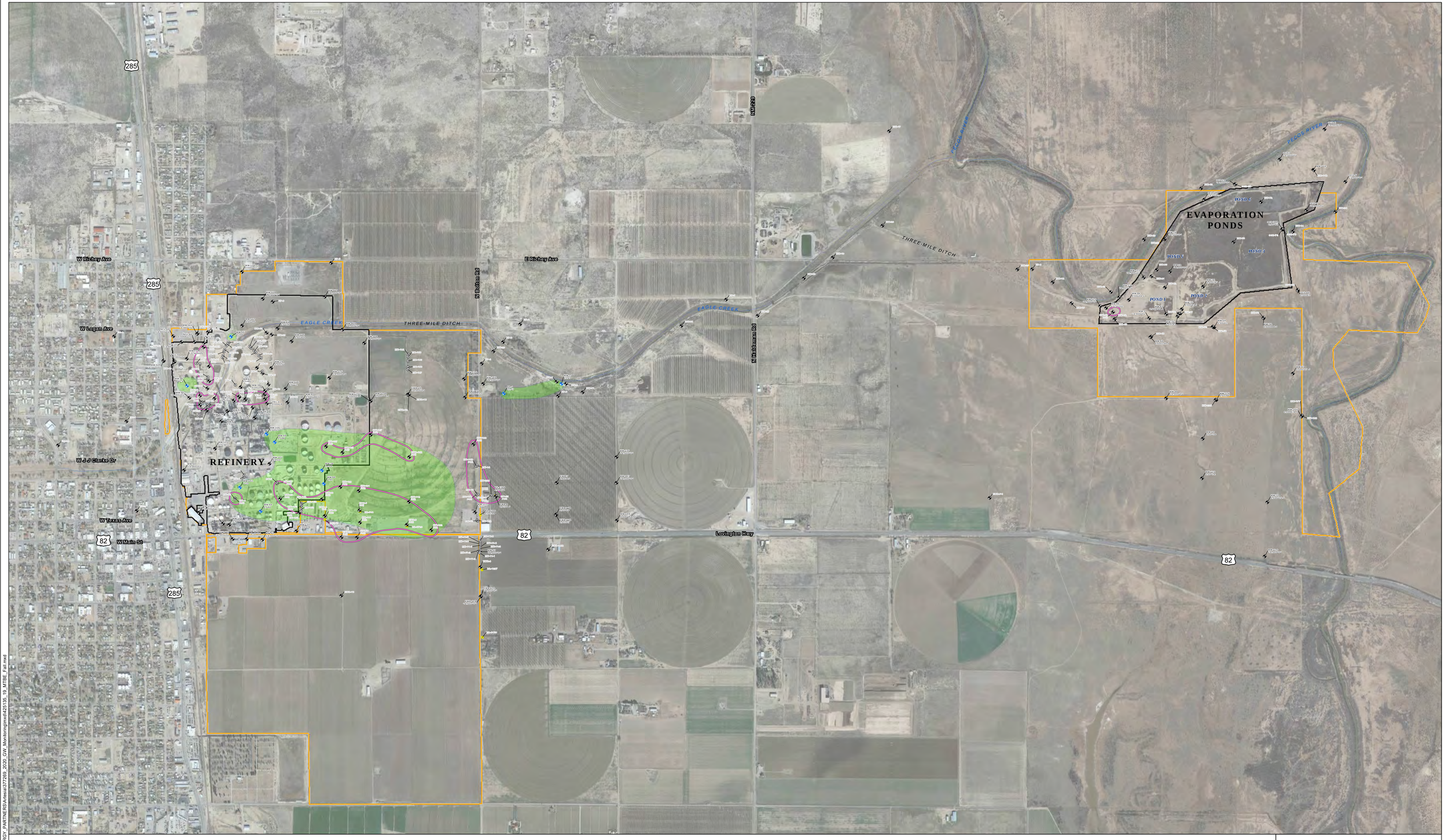
2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

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FIGURE 18

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 1.20 MTBE CONCENTRATION
- <0.000367 MTBE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-103 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- MTBE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 0.1 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.
3. MTBE = METHYL TERT-BUTYL ETHER

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

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MTBE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

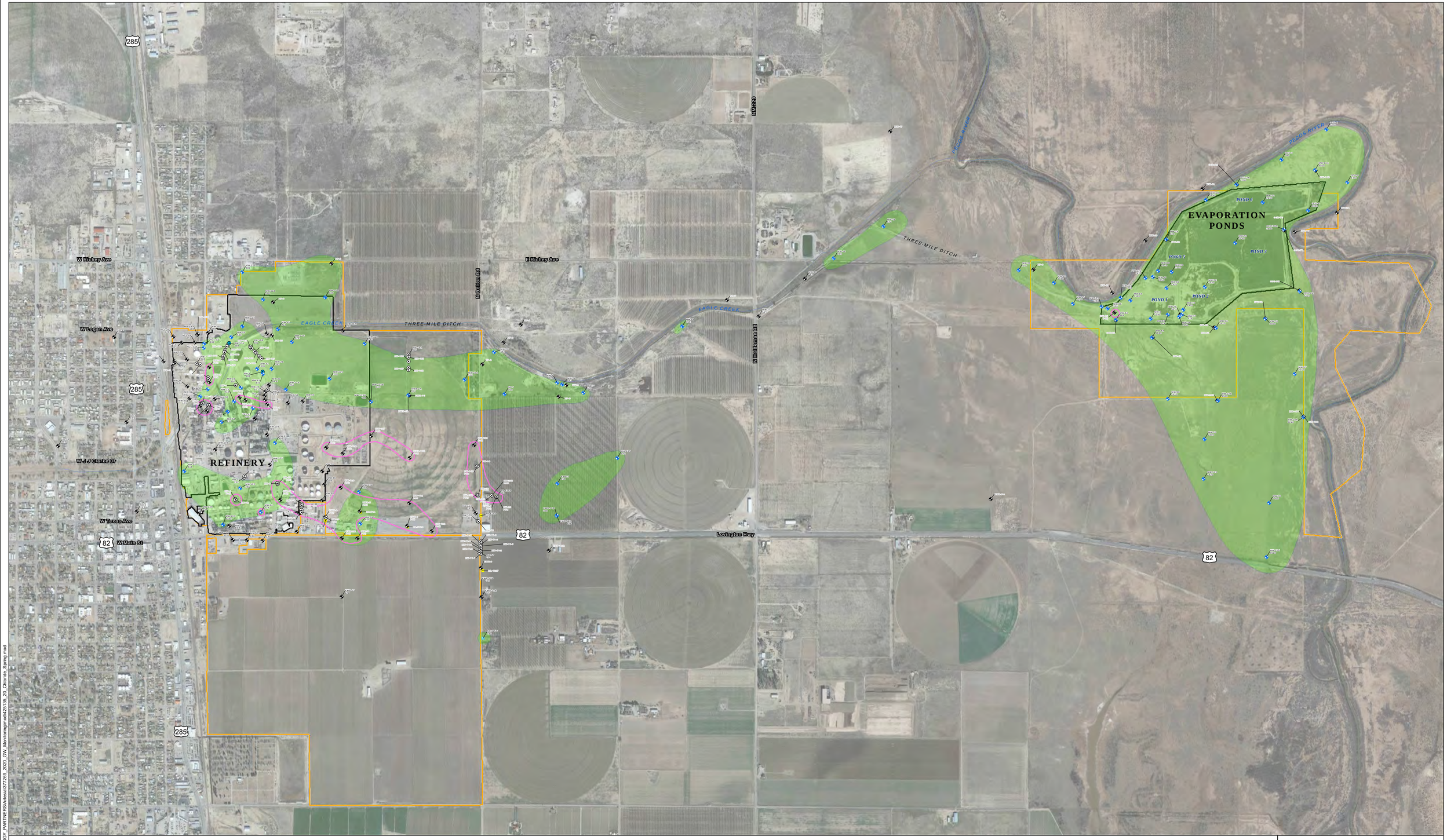
2020 ANNUAL GROUNDWATER REPORT
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ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

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FIGURE 19

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

325 CHLORIDE CONCENTRATION

MW-19 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 250 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

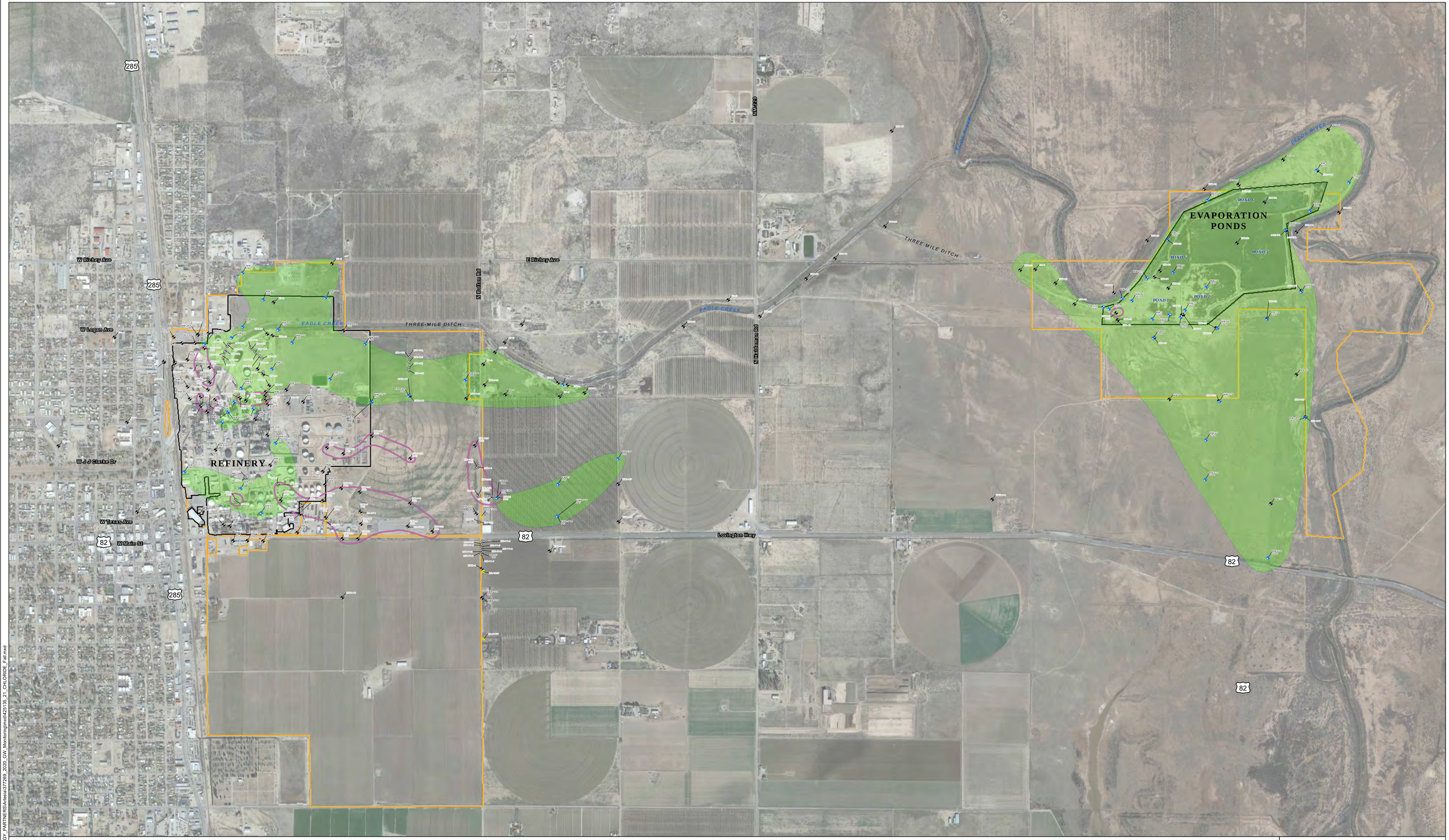
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FIGURE 20

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

188 CHLORIDE CONCENTRATION

KWB-13 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 250 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600

Feet

1 IN = 800 FT

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AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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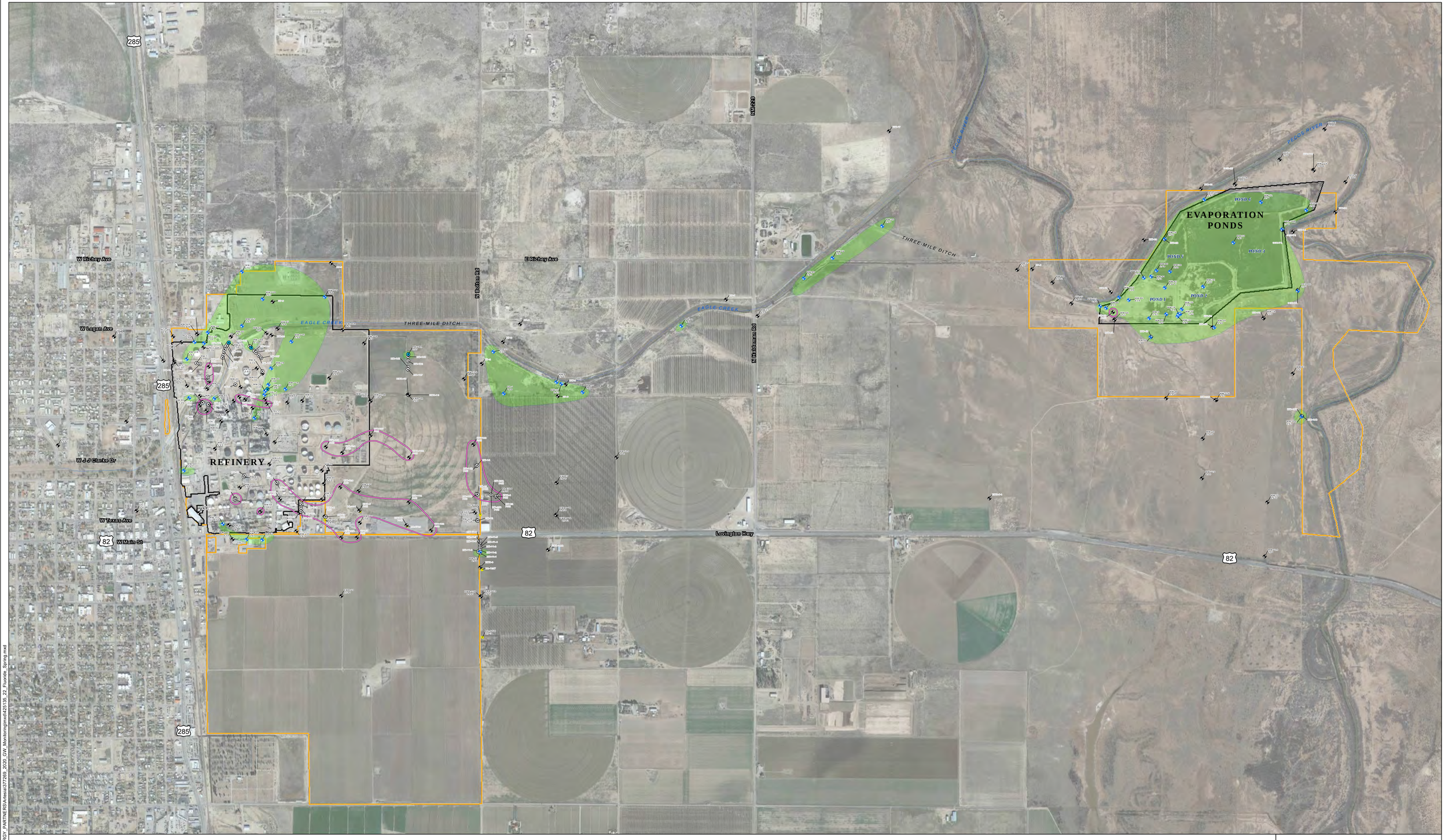
CHLORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
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FIGURE 21



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL
- 5.40 FLUORIDE CONCENTRATION
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1.6 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

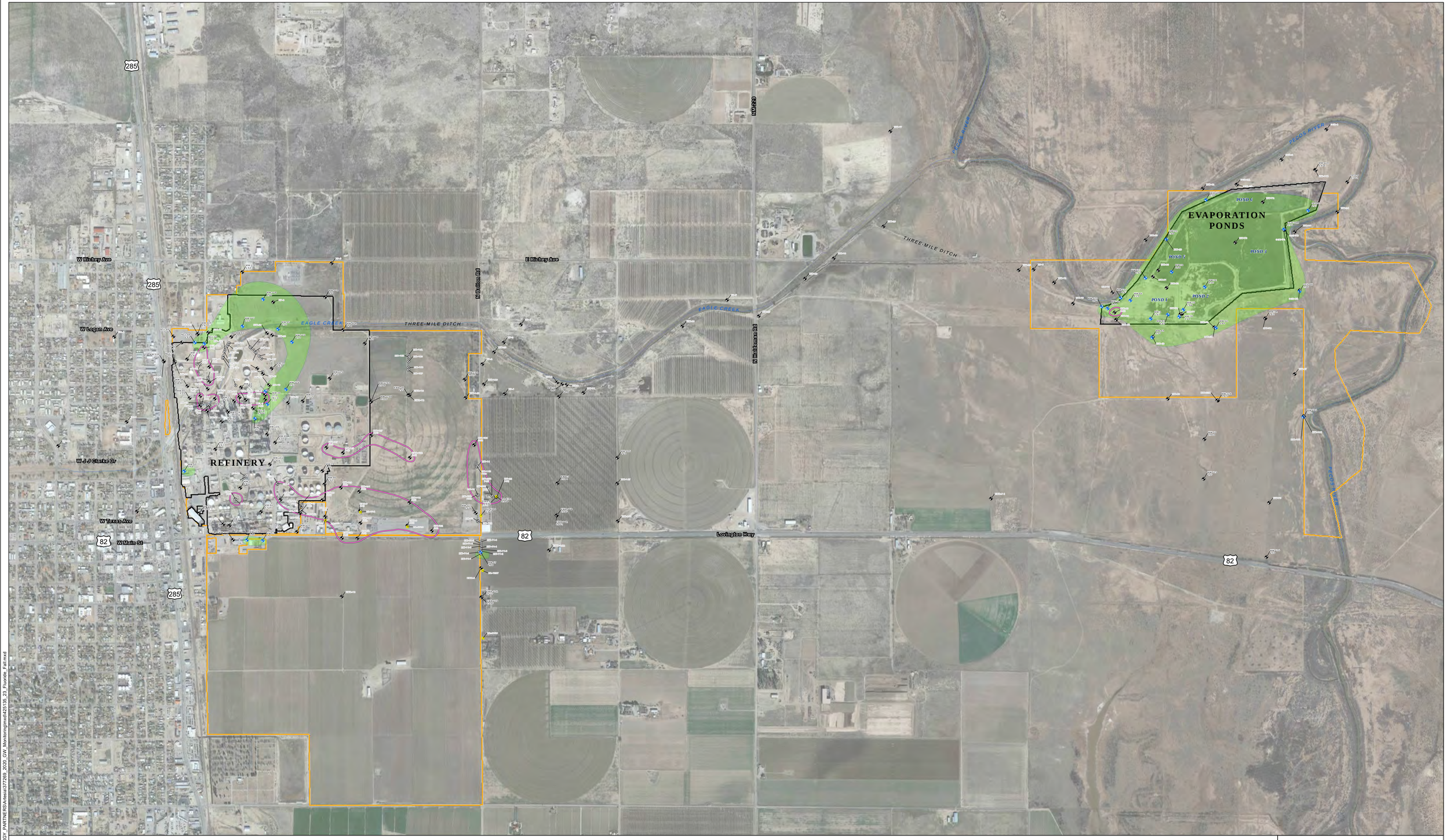
2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

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FIGURE 22

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_22_Fluoride_Spring.mxd



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

1.73 FLUORIDE CONCENTRATION

MW-112 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1.6 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

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AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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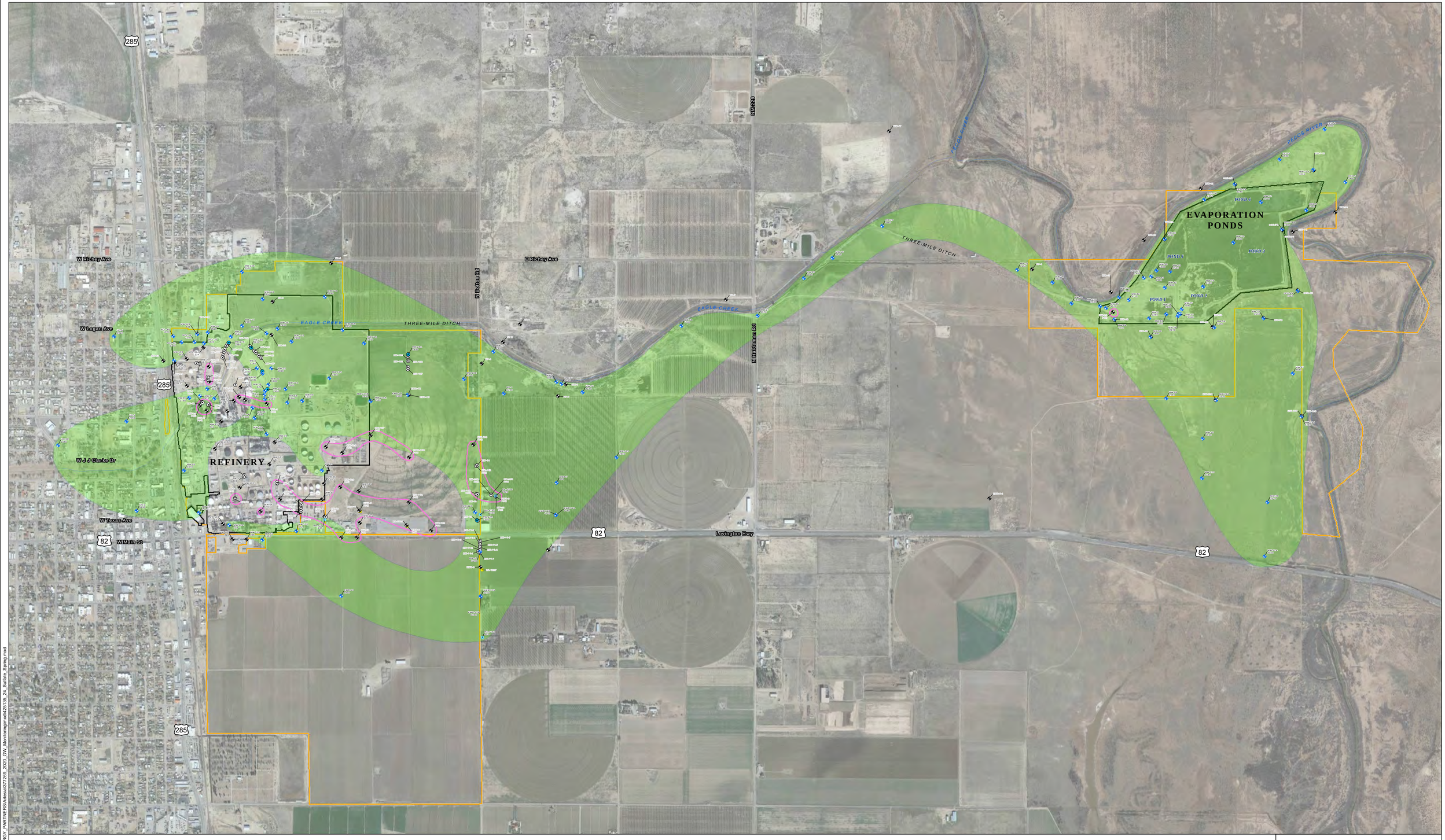
FLUORIDE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
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ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/3/2021	MXD: 425135_23_Fluoride_Fall

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FIGURE 23



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

- 1080 SULFATE CONCENTRATION
- < 0.0774 SULFATE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- SULFATE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 600 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/29/2019).

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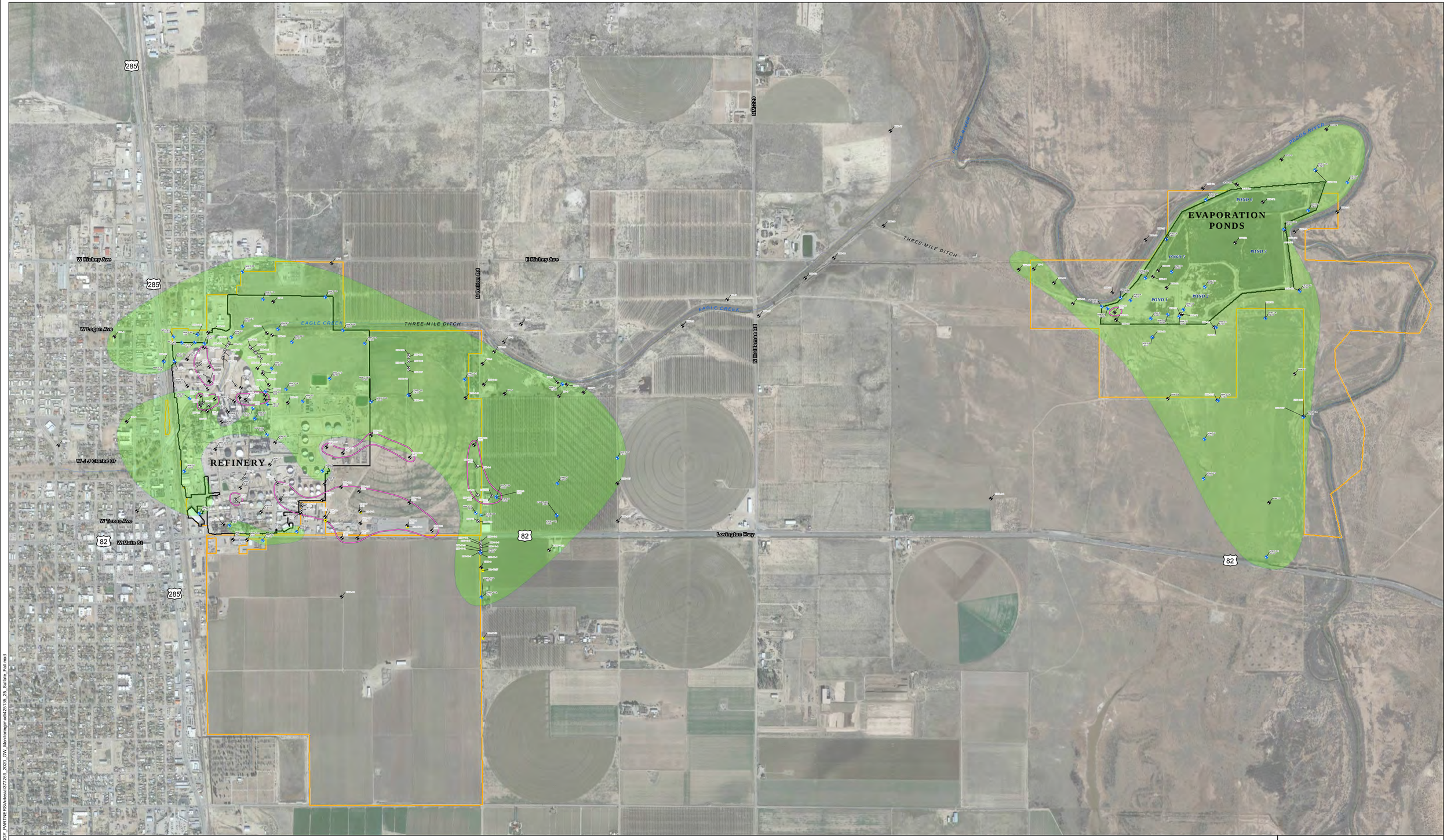
SULFATE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

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FIGURE 24



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL

980 SULFATE CONCENTRATION

MW-103 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

SULFATE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 600 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

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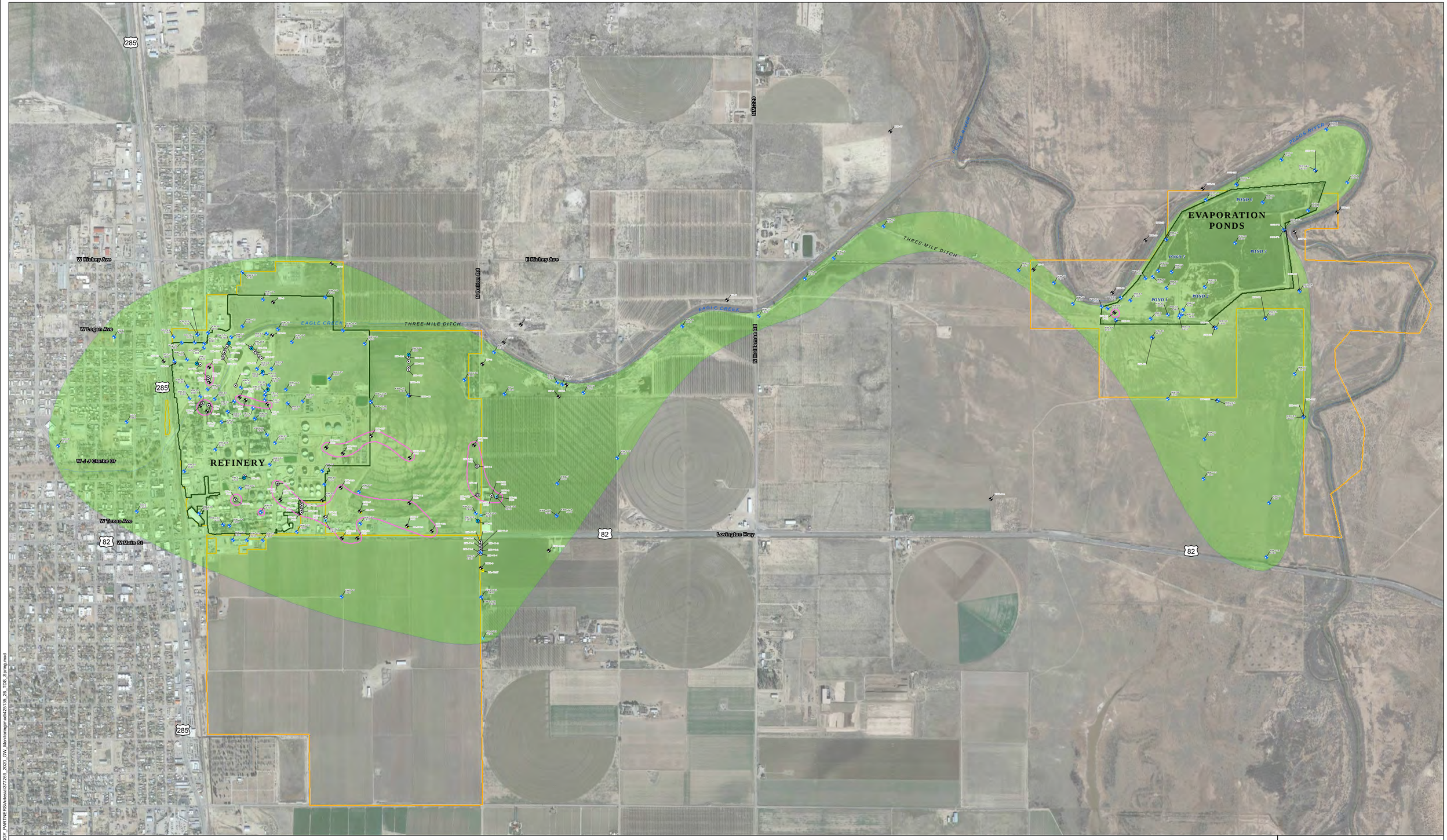
SULFATE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
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ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

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FIGURE 25



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL EXCEEDS SCREENING LEVELS
- RECOVERY WELL

1140 TOTAL DISSOLVED SOLIDS CONCENTRATION

MW-19 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

TOTAL DISSOLVED SOLIDS CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1000 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE AND THEIR DATA PARTNERS (12/29/2019).

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

TOTAL DISSOLVED SOLIDS CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP
2020 FIRST SEMIANNUAL EVENT
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HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

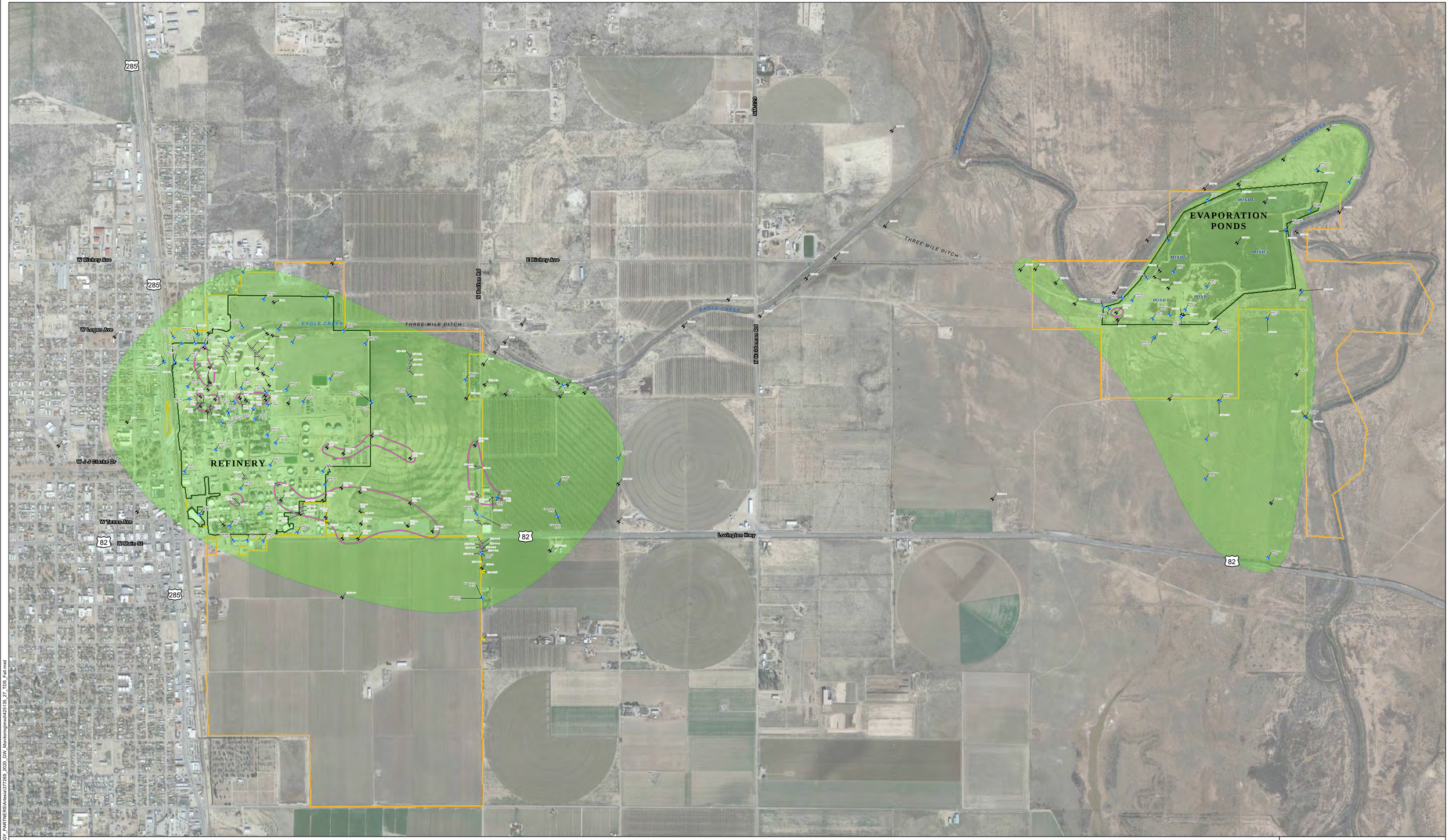
AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_26_TDS_Spring

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 26

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_26_TDS_Spring.mxd

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL EXCEEDS SCREENING LEVELS
- IRRIGATION WELL
- RECOVERY WELL

2210 TOTAL DISSOLVED SOLIDS CONCENTRATION

MW-103 WELL NOT SAMPLED

PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)

TOTAL DISSOLVED SOLIDS CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 1000 mg/L)

FENCELINE

HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)

PHASE-SEPARATED HYDROCARBON (PSH)

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).

N W E S

0 800 1,600

Feet

1 IN = 800 FT

NEW MEXICO

TOTAL DISSOLVED SOLIDS CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP
2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

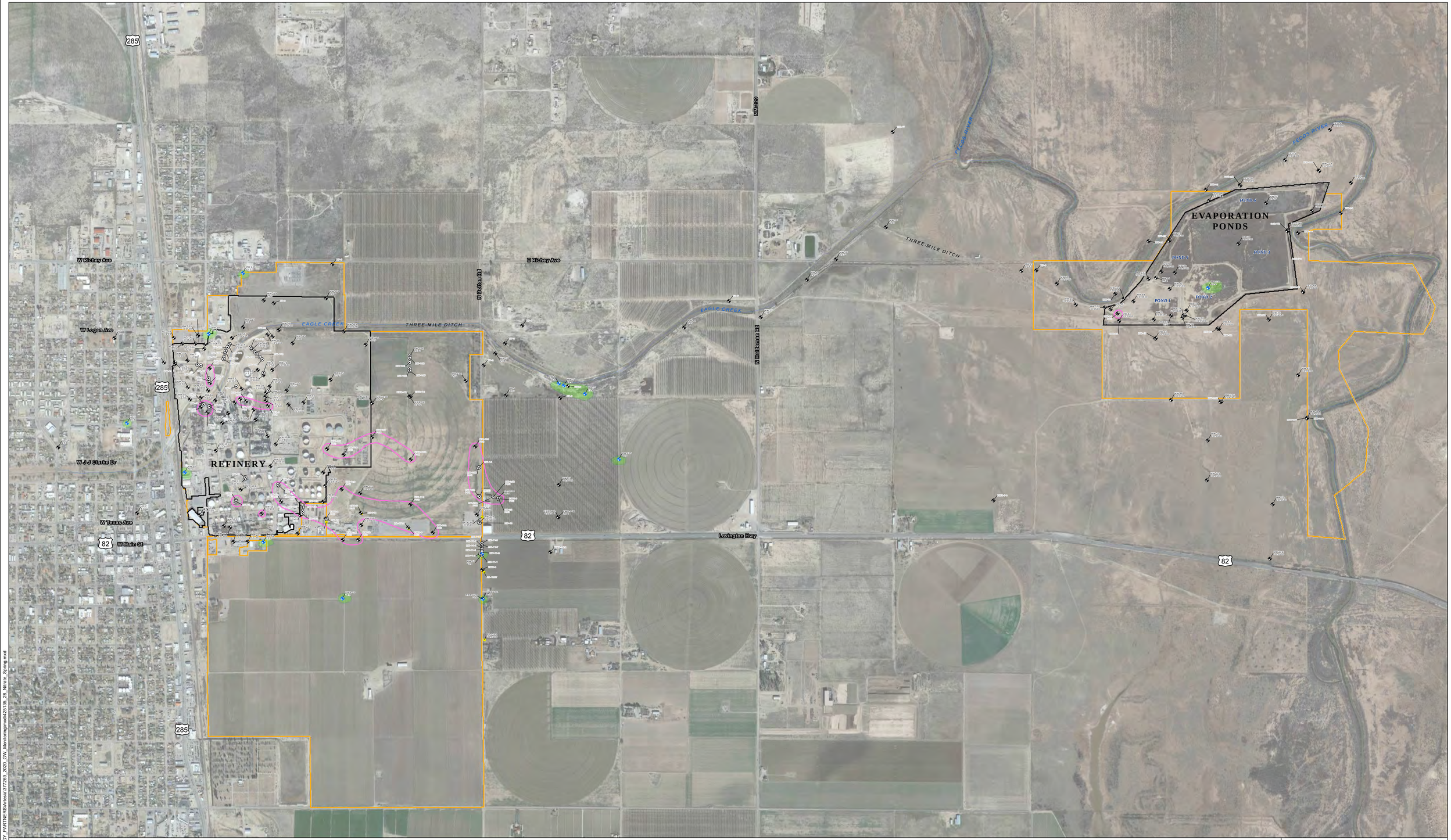
AUTHOR: MHORN	SAVED: 2/3/2021	MXD: 425135_27_TDS_Fall

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 27

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_27_TDS_Fall.mxd

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LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 14.0 NITRATE/NITRITE CONCENTRATION
- < 0.197 NITRATE/NITRITE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-19 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 10 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS (12/29/2019).

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_28_Nitrate_Spring.mxd

NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 FIRST SEMIANNUAL EVENT

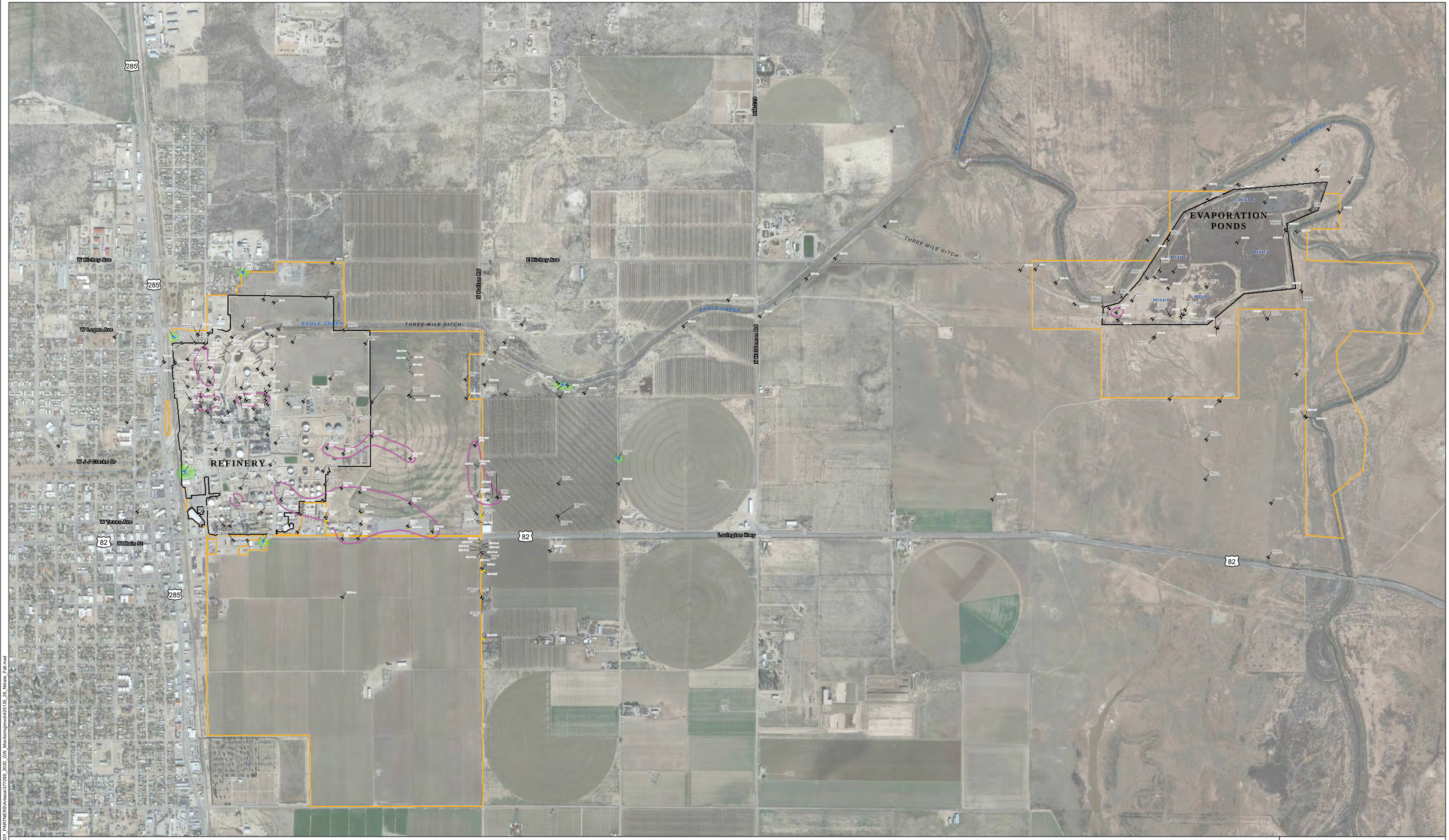
2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/4/2021	MXD: 425135_28_Nitrate_Spring

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 28

Received by OCD: 6/23/2021 4:05:29 PM



LEGEND

- MONITORING WELL EXCEEDS SCREENING LEVELS
- MONITORING WELL
- IRRIGATION WELL
- RECOVERY WELL

- 3.99 NITRATE/NITRITE CONCENTRATION
- < 0.394 NITRATE/NITRITE NOT DETECTED ABOVE METHOD DETECTION LIMIT
- MW-103 WELL NOT SAMPLED
- PSH PHASE-SEPARATED HYDROCARBON PRESENT IN WELL (≥ 0.03 FEET THICK)
- NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE AREA (CONCENTRATION > 10 mg/L)
- FENCELINE
- HFNR PROPERTY BOUNDARY (FENCELINE SHOWN WHERE COINCIDENT)
- PHASE-SEPARATED HYDROCARBON (PSH)

NOTES:

1. ALL CONCENTRATIONS ARE IN MILLIGRAMS PER LITER (mg/L).
2. J = CONCENTRATION QUALIFIED AS AN ESTIMATED VALUE.

N W E S

0 800 1,600
Feet

1 IN = 800 FT

NEW MEXICO

AERIAL IMAGERY SOURCE: GOOGLE EARTH PRO AND THEIR DATA PARTNERS, 12/29/2019.

Document Path: S:\1-PROJECTS\HOLLY_ENERGY_PARTNERS\Artesia\377269_2020_GW_Monitoring\mxd\425135_29_Nitrate_Fall.mxd

NITRATE/NITRITE CRITICAL GROUNDWATER SCREENING LEVEL EXCEEDANCE MAP 2020 SECOND SEMIANNUAL EVENT

2020 ANNUAL GROUNDWATER REPORT
HOLLYFRONTIER NAVAJO REFINING LLC
ARTESIA REFINERY, EDDY COUNTY, NEW MEXICO

AUTHOR: MHORN	SAVED: 2/3/2021	MXD: 425135_29_Nitrate_Fall

TRC
505 E. HUNTLAND DR.
SUITE 250
AUSTIN, TX 78752
PH:512-329-6080

FIGURE 29

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Tables

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Table 1 - Well Information and Gauging Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
Cross-Gradient	KWB-13	Shallow	669077.00	524892.42	3366.02	3365.67	Unknown	Unknown	06/16/20	--	28.42	3,337.25	--
									10/06/20	--	28.00	3,337.67	--
	NP-5	Shallow	675512.24	524698.19	3,346.31	3,349.29	3,336.06	10.25 to 20	06/16/20	--	16.32	3,332.97	--
									10/06/20	--	16.91	3,332.38	--
	MW-136	Shallow	675343.45	522975.40	3,358.62	3,360.83	3,348.62	10 to 25	06/16/20	--	16.69	3,344.14	--
									10/06/20	--	18.40	3,342.43	--
Evaporation Ponds	MW-1R	Shallow	675135.17	538636.78	3,310.49	3,314.20	3,302.49	8 to 23	06/16/20	--	9.04	3,305.16	--
									10/06/20	--	12.51	3,301.69	--
	MW-2A	Shallow	675979.09	540803.91	3,310.55	3,312.97	Unknown	Unknown	06/16/20	--	8.02	3,304.95	--
									10/06/20	--	11.65	3,301.32	--
	MW-2B	Valley Fill	675969.73	540801.44	3,309.94	3,312.49	3,271.44	38.5 to 48	06/16/20	--	9.95	3,302.54	--
									10/06/20	--	12.69	3,299.80	--
	MW-3	Shallow	674443.34	540503.24	3,309.20	3,312.26	Unknown	Unknown	06/16/20	--	10.58	3,301.68	--
									10/06/20	--	13.08	3,299.18	--
	MW-4A	Shallow	674083.00	540529.44	3,308.63	3,312.20	Unknown	Unknown	06/16/20	--	10.82	3,301.38	--
									10/06/20	--	13.23	3,298.97	--
	MW-4B	Valley Fill	674089.71	540541.34	3,308.73	3,312.01	3,248.48	60.25 to 70	06/16/20	--	10.60	3,301.41	--
									10/06/20	--	13.00	3,299.01	--
	MW-5A	Shallow	674272.84	541759.78	3,306.59	3,308.62	Unknown	Unknown	06/16/20	--	8.55	3,300.07	--
									10/06/20	--	10.32	3,298.30	--
	MW-5B	Valley Fill	674272.33	541739.12	3,306.71	3,308.95	3,265.21	41.5 to 50.5	06/16/20	--	8.08	3,300.87	--
									10/06/20	--	10.41	3,298.54	--
	MW-5C	Valley Fill	674279.57	541728.80	3,306.55	3,309.28	3,247.30	59.25 to 68.75	06/16/20	--	8.25	3,301.03	--
									10/06/20	--	10.61	3,298.67	--
	MW-6A	Shallow	674427.07	539833.47	3,310.40	3,313.46	Unknown	Unknown	06/16/20	--	11.64	3,301.82	--
									10/06/20	--	14.28	3,299.18	--
	MW-6B	Valley Fill	674418.57	539834.04	3,310.09	3,313.35	3,270.59	39.5 to 49	06/16/20	--	11.47	3,301.88	--
									10/06/20	--	14.18	3,299.17	--
	MW-7A	Shallow	674447.64	542716.01	3,304.61	3,308.01	Unknown	Unknown	06/16/20	--	8.74	3,299.27	--
									10/06/20	--	10.99	3,297.02	--
	MW-7B	Valley Fill	674455.63	542715.61	3,306.05	3,307.87	3,266.55	39.5 to 49	06/16/20	--	8.52	3,299.35	--
									10/06/20	--	10.81	3,297.06	--
	MW-10	Shallow	672121.15	541540.05	3,304.12	3,304.76	3,304.12	0 to 19.4	06/16/20	--	5.80	3,298.96	--
									10/06/20	--	7.46	3,297.30	--
	MW-11A	Shallow	677317.73	543675.36	3,308.42	3,310.76	3,302.92	5.5 to 20	06/16/20	--	8.18	3,302.58	--
									10/06/20	--	10.93	3,299.83	--

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Table 1 - Well Information and Gauging Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
Evaporation Ponds	MW-11B	Valley Fill	677305.72	543685.50	3,308.34	3,310.76	3,272.84	35.5 to 45	06/16/20	--	7.98	3,302.78	--
									10/06/20	--	10.89	3,299.87	--
	MW-12	Shallow	676952.63	541505.50	3,310.37	3,312.73	3,303.87	6.5 to 16	06/16/20	--	6.52	3,306.21	--
									10/06/20	--	10.03	3,302.70	--
	MW-13	Shallow	674951.80	539762.62	3,311.95	3,314.24	3,302.45	9.5 to 19	06/16/20	--	9.12	3,305.12	--
									10/06/20	--	12.89	3,301.35	--
	MW-14	Shallow	676122.48	543280.49	3,309.44	3,311.84	3,303.94	5.5 to 20	06/16/20	--	7.28	3,304.56	--
									10/06/20	--	>11.81	--	--
	MW-15	Shallow	674731.39	539003.75	3,310.97	3,313.72	3,301.97	9 to 19	06/16/20	--	9.63	3,304.09	--
									10/06/20	--	13.42	3,300.30	--
	MW-18A	Shallow	672548.16	543447.78	3,306.33	3,308.58	3,296.33	10 to 20	06/16/20	--	8.41	3,300.17	--
									10/06/20	--	11.68	3,296.90	--
	MW-18B	Valley Fill	672557.96	543458.22	3,306.23	3,308.74	3,269.23	37 to 47	06/16/20	--	8.42	3,300.32	--
									10/06/20	--	11.67	3,297.07	--
	MW-18T	Valley Fill	672559.79	543449.75	3,306.30	3,308.55	3,269.30	37 to 47	06/16/20	--	8.53	3,300.02	--
									10/06/20	--	11.80	3,296.75	--
	MW-22A	Shallow	672866.82	541801.63	3,305.24	3,307.62	3,299.74	5.5 to 20.5	06/16/20	--	8.12	3,299.50	--
									10/06/20	--	9.92	3,297.70	--
	MW-22B	Valley Fill	672866.58	541786.97	3,305.08	3,307.63	3,262.78	42.3 to 52	06/16/20	--	7.72	3,299.91	--
									10/06/20	--	9.76	3,297.87	--
	MW-24	Shallow	676498.23	544101.56	3,310.33	3,312.85	3,295.33	15 to 20	06/16/20	--	8.61	3,304.24	--
									10/06/20	--	12.04	3,300.81	--
	MW-69	Shallow	675962.29	540401.29	3,311.40	3,313.86	3,306.40	5 to 20	06/16/20	--	7.79	3,306.07	--
									10/06/20	--	11.61	3,302.25	--
	MW-70	Shallow	670892.66	542787.60	3,303.84	3,306.30	3,298.84	5 to 20	06/16/20	--	8.02	3,298.28	--
									10/06/20	--	10.08	3,296.22	--
	MW-72	Shallow	676691.27	542662.31	3,306.40	3,308.45	3,304.40	2 to 12	06/16/20	--	6.65	3,301.80	--
									10/06/20	--	9.17	3,299.28	--
	MW-73	Shallow	675910.20	542130.56	3,308.02	3,310.18	3,306.02	2 to 17	06/16/20	--	9.15	3,301.03	--
									10/06/20	--	11.92	3,298.26	--
	MW-74	Shallow	675059.14	541546.30	3,307.78	3,310.03	3,305.78	2 to 17	06/16/20	--	8.60	3,301.43	--
									10/06/20	--	11.01	3,299.02	--
	MW-75	Shallow	674622.31	541132.78	3,307.80	3,310.21	3,304.80	3 to 18	06/16/20	--	8.71	3,301.50	--
									10/06/20	--	11.07	3,299.14	--
	MW-76	Shallow	674482.47	541053.83	3,309.70	3,311.84	3,306.70	3 to 18	06/16/20	--	10.31	3,301.53	--
									10/06/20	--	12.77	3,299.07	--

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Table 1 - Well Information and Gauging Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
Evaporation Ponds	MW-77	Shallow	674529.89	541104.86	3,307.97	3,310.07	3,304.97	3 to 18	06/16/20	--	8.60	3,301.47	--
									10/06/20	--	11.01	3,299.06	--
	MW-78	Shallow	674529.23	541073.45	3,307.94	3,310.14	3,305.94	2 to 17	06/16/20	--	8.69	3,301.45	--
									10/06/20	--	11.04	3,299.10	--
	MW-79	Shallow	675349.67	540906.08	3,309.08	3,311.43	3,307.08	2 to 17	06/16/20	--	9.18	3,302.25	--
									10/06/20	--	11.71	3,299.72	--
	MW-80	Shallow	675371.74	540646.46	3,310.27	3,310.79	3,308.27	2 to 17	06/16/20	--	7.39	3,303.40	--
									10/06/20	--	10.44	3,300.35	--
	MW-81	Shallow	675252.80	540544.47	3,310.19	3,312.34	3,308.19	2 to 17	06/16/20	--	9.25	3,303.09	--
									10/06/20	--	12.42	3,299.92	--
	MW-82	Shallow	675035.42	540806.88	3,308.64	3,310.75	3,306.64	2 to 17	06/16/20	--	8.51	3,302.24	--
									10/06/20	--	11.29	3,299.46	--
	MW-83	Shallow	674524.97	540832.80	3,307.93	3,310.19	3,305.93	2 to 17	06/16/20	--	8.56	3,301.63	--
									10/06/20	--	11.01	3,299.18	--
	MW-84	Shallow	674798.43	540109.13	3,309.83	3,311.59	3,307.83	2 to 17	06/16/20	--	9.49	3,302.10	--
									10/06/20	--	10.81	3,300.78	--
	MW-85	Shallow	674566.12	539805.49	3,308.99	3,311.09	3,305.99	3 to 18	06/16/20	8.82	8.95	3,302.24	0.13
									10/06/20	11.71	12.28	3,299.27	0.57
	MW-86	Shallow	674645.96	539671.17	3,308.98	3,311.06	3,306.98	2 to 17	06/16/20	--	8.30	3,302.76	--
									10/06/20	--	11.45	3,299.61	--
	MW-87	Shallow	673379.98	543280.45	3,305.42	3,307.64	3,303.42	2 to 17	06/16/20	--	7.99	3,299.65	--
									10/06/20	--	10.26	3,297.38	--
	MW-88	Shallow	672899.14	540832.09	3,306.43	3,308.68	3,303.43	3 to 18	06/16/20	--	9.00	3,299.68	--
									10/06/20	--	10.71	3,297.97	--
	MW-120	Shallow	674678.95	539555.77	3,310.66	3,313.55	3,300.66	10 to 25	06/16/20	--	10.67	3,302.88	--
									10/06/20	--	14.02	3,299.53	--
	MW-121	Shallow	674851.38	539923.70	3,311.77	3,314.68	3,301.77	10 to 25	06/16/20	--	9.83	3,304.85	--
									10/06/20	--	14.12	3,300.56	--
	MW-122	Shallow	675231.06	540401.60	3,308.78	3,311.69	3,298.78	10 to 20	06/16/20	--	9.36	3,302.33	--
									10/06/20	--	12.02	3,299.67	--
	MW-123	Shallow	671352.15	541523.94	3,302.78	3,303.98	3,292.78	10 to 25	06/16/20	--	6.34	3,297.64	--
									10/06/20	--	7.94	3,296.04	--
	MW-124	Shallow	669844.77	542735.51	3,302.99	3,305.84	3,297.99	5 to 20	06/16/20	--	8.92	3,296.92	--
									10/06/20	--	10.78	3,295.06	--
	OCD-1R	Shallow	676741.31	541568.00	3,310.69	3,314.27	Unknown	Unknown	06/16/20	--	9.50	3,304.77	--
									10/06/20	--	13.03	3,301.24	--

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Table 1 - Well Information and Gauging Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
Evaporation Ponds	OCD-2A	Shallow	677036.12	542157.14	3,310.83	3,314.16	3,302.33	8.5 to 23.5	06/16/20	--	9.16	3,305.00	--
									10/06/20	--	13.26	3,300.90	--
	OCD-2B	Valley Fill	677034.65	542167.57	3,310.66	3,313.07	3,272.16	38.5 to 48	06/16/20	--	10.50	3,302.57	--
									10/06/20	--	13.18	3,299.89	--
	OCD-3	Shallow	677516.31	543024.47	3,310.88	3,314.29	3,304.38	6.5 to 21.5	06/16/20	--	9.78	3,304.51	--
									10/06/20	--	13.68	3,300.61	--
	OCD-4	Shallow	678099.52	543893.55	3,310.10	3,313.70	3,303.60	6.5 to 21.5	06/16/20	--	9.35	3,304.35	--
									10/06/20	--	13.22	3,300.48	--
	OCD-5	Shallow	677081.54	544295.35	3,308.71	3,311.34	Unknown	Unknown	06/16/20	--	7.61	3,303.73	--
									10/06/20	--	11.44	3,299.90	--
	OCD-6	Shallow	676538.82	543540.03	3,307.20	3,311.36	3,299.20	8 to 23	06/16/20	--	7.51	3,303.85	--
									10/06/20	--	11.90	3,299.46	--
	OCD-7AR	Shallow	676169.74	543071.88	3,308.86	3,310.03	3,303.36	5.5 to 19.5	06/16/20	--	6.35	3,303.68	--
									10/06/20	--	11.01	3,299.02	--
	OCD-7B	Valley Fill	676157.36	543081.99	3,307.57	3,310.26	3,264.07	43.5 to 52.5	06/16/20	--	6.96	3,303.30	--
									10/06/20	--	11.00	3,299.26	--
	OCD-7C	Valley Fill	676155.95	543069.21	3,307.74	3,310.10	3,247.49	60.25 to 69.75	06/16/20	--	7.99	3,302.11	--
									10/06/20	--	10.73	3,299.37	--
	OCD-8A	Shallow	674976.41	543376.95	3,306.26	3,308.79	3,303.26	3 to 18	06/16/20	--	8.85	3,299.94	--
									10/06/20	--	10.70	3,298.09	--
	OCD-8B	Valley Fill	674992.24	543375.06	3,306.11	3,309.19	3,262.61	43.5 to 53	06/16/20	--	7.98	3,301.21	--
									10/06/20	--	10.67	3,298.52	--
Field East of Refinery	KWB-1A	Shallow	672969.12	526181.36	3,351.25	3,353.46	3,333.25	18 to 32	06/16/20	--	17.91	3,335.55	--
									10/06/20	--	18.49	3,334.97	--
	KWB-1B	Shallow	672968.90	526191.02	3,351.14	3,352.83	3,333.14	18 to 32	06/16/20	--	19.63	3,333.20	--
									10/06/20	--	20.14	3,332.69	--
	KWB-1C	Valley Fill	672968.22	526202.95	3,351.18	3,351.38	3,320.68	30.5 to 49.5	06/16/20	--	20.24	3,331.14	--
									10/06/20	--	20.75	3,330.63	--
	KWB-7	Shallow	671266.72	529055.47	3,343.00	3,346.16	3,325.00	18 to 32	06/16/20	--	19.71	3,326.45	--
									10/06/20	--	17.75	3,328.41	--
	KWB-8	Shallow	671000.57	527874.87	3,347.90	3,350.41	3,332.90	15 to 34	06/16/20	20.80	20.89	3,329.59	0.09
									10/06/20	--	18.86	3,331.55	--
	KWB-10R	Shallow	671756.34	526206.06	3,351.23	3,350.97	3,342.23	9 to 29	06/16/20	18.56	21.40	3,331.84	2.84
									10/06/20	18.80	21.79	3,331.57	2.99
	KWB-11A	Shallow	670643.67	529043.46	3,346.13	3,348.72	3,316.13	30 to 39.5	06/16/20	--	20.14	3,328.58	--
									10/06/20	--	17.56	3,331.16	--

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Field East of Refinery	KWB-11B	Valley Fill	670653.84	529044.06	3,345.91	3,348.03	3,295.91	50 to 69.5	06/16/20	--	20.88	3,327.15	--
									10/06/20	--	18.31	3,329.72	--
	KWB-12A	Shallow	669074.44	527590.88	3,352.01	3,351.81	3,336.51	15.5 to 24.5	06/16/20	--	23.88	3,327.93	--
									10/06/20	--	23.11	3,328.70	--
	KWB-12B	Valley Fill	669064.18	527590.12	3,351.84	3,351.63	3,326.34	25.5 to 39.5	06/16/20	--	23.73	3,327.90	--
									10/06/20	--	23.07	3,328.56	--
	KWB-P4	Shallow	670970.10	537416.92	3,305.76	3,305.39	Unknown	Unknown	--	--	--	--	--
									--	--	--	--	--
	MW-57	Shallow	669935.59	527579.02	3,350.95	3,350.91	3,340.95	10 to 30	06/16/20	--	21.45	3,329.46	--
									10/06/20	--	21.73	3,329.18	--
	MW-58	Shallow	670207.27	525197.99	3,362.56	3,362.22	3,349.56	13 to 28	06/16/20	23.43	24.05	3,338.67	0.62
									10/06/20	23.76	24.71	3,338.27	0.95
	MW-111	Shallow	670494.22	525254.30	3,362.52	3,365.51	3,337.52	25 to 40	06/16/20	--	27.05	3,338.46	--
									10/06/20	27.39	27.64	3,338.07	0.25
	MW-112	Shallow	670890.64	526198.73	3,355.38	3,358.38	3,330.38	25 to 35	06/16/20	23.15	25.09	3,334.84	1.94
									10/06/20	23.23	25.29	3,334.74	2.06
	MW-113	Shallow	670693.80	527483.95	3,350.06	3,352.93	3,330.06	20 to 35	06/16/20	--	23.02	3,329.91	--
									10/06/20	--	21.49	3,331.44	--
	MW-125	Shallow	673288.01	524663.00	3,355.60	3,358.81	3,340.60	15 to 25	06/16/20	--	19.17	3,339.64	--
									10/06/20	--	20.32	3,338.49	--
	MW-126A	Shallow	672845.69	525458.24	3,353.60	3,356.60	3,334.60	19 to 34	06/16/20	--	20.60	3,336.00	--
									10/06/20	--	21.41	3,335.19	--
	MW-126B	Valley Fill	672843.26	525464.41	3,353.60	3,356.67	3,313.60	40 to 50	06/16/20	--	20.45	3,336.22	--
									10/06/20	--	21.29	3,335.38	--
	MW-127	Shallow	672184.21	525464.20	3,355.50	3,358.39	3,335.50	20 to 50	06/16/20	22.45	24.24	3,335.58	1.79
									10/06/20	22.96	24.88	3,335.05	1.92
	MW-128	Shallow	671846.09	524917.06	3,358.80	3,358.77	3,343.80	15 to 35	06/16/20	18.35	20.26	3,340.04	1.91
									10/06/20	19.06	21.20	3,339.28	2.14
	MW-129	Shallow	671184.95	524876.21	3,363.10	3362.907[4]	3,343.10	20 to 50	06/16/20	23.17	24.08	3,339.56	0.91
									10/06/20	23.66	24.75	3,339.03	1.09
	MW-130	Shallow	670331.35	524029.44	3,370.20	3,369.86	3,340.20	30 to 45	06/16/20	--	22.49	3,347.37	--
									10/06/20	--	23.19	3,346.67	--
	MW-131	Shallow	671104.83	525228.77	3,360.40	3,363.49	3,340.40	20 to 50	06/16/20	--	25.85	3,337.64	--
									10/06/20	25.95	27.58	3,337.21	1.63
	MW-132	Shallow	670346.80	526629.79	3,354.30	3,357.12	3,339.30	15 to 40	06/16/20	21.25	23.75	3,335.37	2.50
									10/06/20	21.32	23.80	3,335.30	2.48

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Field East of Refinery	MW-133	Shallow	672005.89	527446.73	3,343.40	3,349.45	3,328.40	15 to 35	06/16/20	19.72	20.18	3,329.64	0.46
									10/06/20	19.40	19.62	3,330.01	0.22
	MW-134	Shallow	673271.80	527263.99	3,343.10	3,346.23	3,323.10	20 to 30	06/16/20	--	19.18	3,327.05	--
									10/06/20	--	19.73	3,326.50	--
	MW-135	Shallow	671758.72	530211.23	3,338.00	3,337.65	3,303.00	35 to 65	06/16/20	--	30.71	3,306.94	--
									10/06/20	--	31.02	3,306.63	--
	RW-12R	Shallow	670542.50	527519.20	3,350.58	3,351.54	3,335.58	15 to 35	06/16/20	--	23.55	3,327.99	--
									10/06/20	--	21.74	3,329.80	--
	RW-13R	Shallow	671049.37	527506.74	3,349.60	3,351.54	3,334.60	15 to 35	06/16/20	22.01	24.21	3,329.09	2.20
									10/06/20	20.02	20.13	3,331.50	0.11
	RW-14R	Shallow	671592.73	527504.45	3,347.39	3,349.37	3,332.39	15 to 35	06/16/20	20.47	26.73	3,327.65	6.26
									10/06/20	21.78	21.97	3,327.55	0.19
	RW-18A	Shallow	673750.19	526188.64	3,349.04	3,350.84	Unknown	Unknown	06/16/20	--	16.94	3,333.90	--
									10/06/20	--	17.60	3,333.24	--
	RW-20A	Shallow	671032.06	527790.95	3,347.75	3,348.44	Unknown	Unknown	06/16/20	17.52	17.63	3,330.90	0.11
									10/06/20	>20.65	>20.65	NM[5]	>0.00
	RW-20B	Shallow	671032.06	527790.95	3,347.75	3,348.44	Unknown	Unknown	06/16/20	17.53	17.66	3,330.88	0.13
									10/06/20	20.51	20.70	3,327.89	0.19
	RW-22	Shallow	671009.70	527889.44	3,347.17	3,349.21	3,335.67	11.5 to 39	06/16/20	24.64	30.33	3,323.43	5.69
									10/06/20	23.46	24.34	3,325.57	0.88
	MW-145	Shallow	672914.535	527283.916	3,343.94	3347.069	3,334.94	9 to 29	06/16/20	--	--	--	--
									10/06/20	--	20.04	3,327.03	--
	MW-146	Shallow	673173.048	527636.606	3,340.34	3343.093	3,330.34	10 to 30	06/16/20	--	--	--	--
									10/06/20	--	23.30	3,319.79	--
	MW-147	Shallow	671265.079	530212.282	3,339.85	3339.480	3,319.85	20 to 40	06/16/20	--	--	--	--
									10/06/20	--	30.70	3,308.78	--
	MW-148	Shallow	670534.369	530218.563	3,342.79	3342.593	3,322.79	20 to 40	06/16/20	--	--	--	--
									10/06/20	--	34.40	3,308.19	--
North Refinery	MW-23	Shallow	672851.25	522821.05	3,365.09	3,368.38	3,350.09	15 to 20	06/16/20	--	16.24	3,352.14	--
									10/06/20	--	18.31	3,350.07	--
	MW-29	Shallow	673481.15	523544.65	3,359.79	3,360.64	3,350.04	9.75 to 19.25	06/16/20	--	20.76	3,339.88	--
									10/06/20	--	22.19	3,338.45	--
	MW-30	Shallow	674124.92	523550.16	3,359.14	3,361.98	Unknown	Unknown	06/16/20	--	15.90	3,346.08	--
									10/06/20	--	17.71	3,344.27	--
	MW-39	Shallow	673039.50	523422.93	3,357.94	3,358.79	3,343.94	14 to 24	06/16/20	--	15.22	3,343.57	--
									10/06/20	--	16.84	3,341.95	--

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North Refinery	MW-40	Shallow	673161.12	523489.02	3,356.56	3,356.93	Unknown	Unknown	06/16/20	--	13.86	3,343.07	--
									10/06/20	--	15.40	3,341.53	--
	MW-41	Shallow	673379.87	523374.64	3,356.38	3,356.58	3,342.38	14 to 19	06/16/20	--	14.02	3,342.56	--
									10/06/20	--	14.74	3,341.84	--
	MW-42	Shallow	673480.27	523263.53	3,355.64	3,358.44	Unknown	Unknown	06/16/20	--	15.42	3,343.02	--
									10/06/20	--	17.04	3,341.40	--
	MW-43	Shallow	673115.86	522950.40	3,363.38	3,365.49	3,347.88	15.5 to 20.5	06/16/20	--	13.99	3,351.50	--
									10/06/20	--	15.85	3,349.64	--
	MW-59	Shallow	672814.66	523854.12	3,359.44	3,362.43	3,344.44	15 to 30	06/16/20	--	16.62	3,345.81	--
									10/06/20	--	18.11	3,344.32	--
	MW-60	Shallow	672849.58	524143.12	3,359.26	3,361.98	3,344.26	15 to 30	06/16/20	--	17.95	3,344.03	--
									10/06/20	--	19.35	3,342.63	--
	MW-61	Shallow	672453.76	522578.38	3,369.45	3,369.47	3,355.45	14 to 29	06/16/20	--	12.90	3,356.57	--
									10/06/20	--	14.97	3,354.50	--
	MW-62	Shallow	672650.76	522696.50	3,368.35	3,368.81	3,354.35	14 to 29	06/16/20	--	15.50	3,353.31	--
									10/06/20	--	17.56	3,351.25	--
	MW-62R	Shallow	672656.02	522699.19	Unknown	3,368.53	Unknown	5 to 25	06/16/20	--	--	--	--
									10/06/20	--	17.29	3,351.24	--
	MW-67	Shallow	673224.88	522342.43	3,365.59	3,365.45	3,353.59	12 to 27	06/16/20	12.18	12.23	3,353.26	0.05
									10/06/20	14.42	16.28	3,350.66	1.86
	MW-90	Shallow	672909.28	521960.18	3,367.13	3,369.42	3,362.13	5 to 20	06/16/20	--	12.66	3,356.76	--
									10/06/20	--	14.47	3,354.95	--
	MW-91	Shallow	672945.86	522167.26	3,365.72	3,367.73	3,358.72	7 to 22	06/16/20	--	12.78	3,354.95	--
									10/06/20	14.87	14.91	3,352.85	0.04
	MW-92	Shallow	672766.10	522167.26	3,366.75	3,368.72	3,361.75	5 to 20	06/16/20	13.11	13.67	3,355.50	0.56
									10/06/20	14.68	17.69	3,353.44	3.01
	MW-93	Shallow	672897.25	522446.83	3,364.22	3,363.79	3,359.22	5 to 20	06/16/20	--	9.90	3,353.89	--
									10/06/20	11.86	11.90	3,351.92	0.04
	MW-94	Shallow	673510.54	522336.27	3,365.82	3,367.97	3,360.82	5 to 20	06/16/20	14.63	18.50	3,352.57	3.87
									10/06/20	16.94	22.45	3,349.93	5.51
	MW-95	Shallow	673084.72	522308.89	3,366.48	3,368.70	3,359.48	7 to 22	06/16/20	--	14.86	3,353.84	--
									10/06/20	--	17.13	3,351.57	--
	MW-96	Shallow	673143.60	521917.50	3,366.83	3,368.92	3,359.83	7 to 22	06/16/20	--	12.85	3,356.07	--
									10/06/20	--	15.03	3,353.89	--
	MW-97	Shallow	672660.45	522295.96	3,366.38	3,365.92	3,358.38	8 to 23	06/16/20	10.81	14.06	3,354.46	3.25
									10/06/20	NM	NM	--	NM

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North Refinery	MW-98	Shallow	672517.05	523220.39	3,358.96	3,361.36	3,345.96	13 to 23	06/16/20	--	12.88	3,348.48	--
									10/06/20	--	13.54	3,347.82	--
	MW-137	Shallow	672923.48	522924.27	3,363.15	3,364.83	3,353.15	10 to 30	06/16/20	11.38	12.47	3,353.23	1.09
									10/06/20	13.41	14.97	3,351.11	1.56
	MW-137A	Shallow	672872.20	523039.47	Unknown	3,363.45	Unknown	5.5 to 15.5	06/16/20	--	--	--	--
									10/06/20	13.49	14.62	3,349.74	1.13
	MW-138	Shallow	672876.52	523041.05	3,364.73	3,363.24	3,354.73	10 to 25	06/16/20	12.89	15.49	3,349.83	2.60
									10/06/20	14.81	17.88	3,347.82	3.07
	MW-138A	Shallow	672924.49	522916.09	Unknown	3,364.56	Unknown	5.5 to 15.5	06/16/20	--	--	--	--
									10/06/20	14.59	--	--	>0.44
	RW-1	Shallow	672825.27	522204.68	3,365.29	3,367.03	Unknown	Unknown	06/16/20	14.37	15.08	3,352.52	0.71
									10/06/20	17.61	18.21	3,349.30	0.60
	RW-2	Shallow	672781.86	522337.29	3,368.17	3,368.17	Unknown	Unknown	06/16/20	15.02	15.53	3,353.05	0.51
									10/06/20	15.60	16.88	3,352.31	1.28
	RW-7	Shallow	673579.35	522098.94	3,365.03	3,367.09	Unknown	Unknown	06/16/20	--	13.84	3,353.25	--
									10/06/20	18.79	20.95	3,347.87	2.16
	RW-8	Shallow	673266.20	522321.21	3,364.89	3,368.10	Unknown	Unknown	06/16/20	13.62	15.72	3,354.06	2.10
									10/06/20	18.17	21.72	3,349.22	3.55
	RW-9	Shallow	673423.49	523371.16	3,356.30	3,359.51	Unknown	Unknown	06/16/20	--	15.19	3,344.32	--
									10/06/20	--	16.75	3,342.76	--
	RW-10	Shallow	673076.17	523469.29	3,356.12	3,360.61	Unknown	Unknown	06/16/20	--	15.18	3,345.43	--
									10/06/20	--	16.76	3,343.85	--
	RW-16B	Shallow	673876.71	523156.09	3,357.20	3,360.97	Unknown	Unknown	06/16/20	--	17.10	3,343.87	--
									10/06/20	DRY	DRY	--	DRY
	RW-17A	Shallow	673978.33	522723.59	3,362.76	3,364.72	Unknown	Unknown	06/16/20	--	14.54	3,350.18	--
									10/06/20	DRY	DRY	--	DRY
North RO Reject Field	MW-117	Shallow	674301.52	522979.73	3,360.07	3,363.01	3,350.07	10 to 25	06/16/20	--	14.65	3,348.36	--
									10/06/20	--	16.17	3,346.84	--
	MW-118	Shallow	674819.18	523375.94	3,359.62	3,361.95	3,349.62	10 to 25	06/16/20	--	17.76	3,344.19	--
									10/06/20	--	19.35	3,342.60	--
	MW-119	Shallow	674860.11	524575.80	3,353.83	3,356.11	3,343.83	10 to 25	06/16/20	--	16.02	3,340.09	--
									10/06/20	--	17.21	3,338.90	--
NCL	MW-18	Shallow	674172.45	522318.86	3,358.54	3,361.02	3,343.54	15 to 19	06/16/20	--	14.14	3,346.88	--
									10/06/20	--	15.85	3,345.17	--
	MW-19	Shallow	673597.29	521670.75	3,366.00	3,368.00	3,361.00	5 to 19.5	06/16/20	--	12.45	3,355.55	--
									10/06/20	--	14.80	3,353.20	--

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Table 1 - Well Information and Gauging Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
NCL	MW-45	Shallow	674247.07	523663.75	3,351.32	3,351.51	3,340.82	10.5 to 15.5	06/16/20	--	11.27	3,340.24	--
									10/06/20	--	13.20	3,338.31	--
	MW-53	Shallow	673626.07	521459.12	3,368.86	3,368.73	3,355.06	13.8 to 23.8	06/16/20	--	--[3]	--	--
									10/06/20	--	--[3]	--	--
	MW-53R	Shallow	673615.989	521463.004	3,368.87	3368.749	3,354.87	14 to 24	06/16/20	--	--	--	--
									10/06/20	--	14.56	3,354.19	--
	MW-54A	Shallow	674138.65	522110.51	3,363.55	3,366.49	3,350.85	12.7 to 27.7	06/16/20	--	14.77	3,351.72	--
									10/06/20	--	16.50	3,349.99	--
	MW-54B	Valley Fill	674148.44	522118.80	3,363.47	3,366.47	3,329.67	33.8 to 43.8	06/16/20	--	14.83	3,351.64	--
									10/06/20	--	16.52	3,349.95	--
	MW-55	Shallow	674091.95	522766.46	3,361.90	3,364.77	3,348.20	13.7 to 23.7	06/16/20	--	15.02	3,349.75	--
									10/06/20	--	16.64	3,348.13	--
	MW-56	Shallow	674160.38	523450.14	3,354.84	3,357.44	3,341.44	13.4 to 23.4	06/16/20	--	16.67	3,340.77	--
									10/06/20	--	18.51	3,338.93	--
	MW-108	Shallow	673659.33	521910.16	3,366.25	3,369.11	3,357.25	9 to 24	06/16/20	--	15.30	3,353.81	--
									10/06/20	--	17.89	3,351.22	--
	NCL-31	Shallow	673629.51	521669.01	3,366.21	3,367.54	3,353.21	13 to 18	06/16/20	--	12.17	3,355.37	--
									10/06/20	--	14.44	3,353.10	--
	NCL-32	Shallow	673984.83	521808.14	3,364.96	3,364.91	3,347.96	17 to 22	06/16/20	--	12.26	3,352.65	--
									10/06/20	--	13.96	3,350.95	--
	NCL-33	Shallow	673967.20	522245.18	3,364.26	3,363.97	3,351.26	13 to 18	06/16/20	--	12.10	3,351.87	--
									10/06/20	--	14.04	3,349.93	--
	NCL-34A	Shallow	673885.52	522235.08	3,364.82	3,365.49	3,348.82	16 to 21	06/16/20	--	13.40	3,352.09	--
									10/06/20	15.01	--	--	>4.25[6]
	NCL-44	Shallow	673986.41	522062.11	3,364.01	3,364.45	Unknown	Unknown	06/16/20	--	11.85	3,352.60	--
									10/06/20	--	13.81	3,350.64	--
	NCL-49	Shallow	674099.16	521648.40	3,368.26	3,371.13	3,351.46	16.8 to 17.8	06/16/20	--	18.18	3,352.95	--
									10/06/20	--	19.62	3,351.51	--
South Refinery	KWB-2R	Shallow	670207.24	524897.59	3,364.56	3,364.32	Unknown	Unknown	06/16/20	24.57	24.73	3,339.72	0.16
									10/06/20	25.10	25.29	3,339.18	0.19
	KWB-4	Shallow	670616.38	524572.44	3,368.36	3,370.25	3,348.36	20 to 39	06/16/20	26.39	28.10	3,343.52	1.71
									10/06/20	27.03	28.31	3,342.96	1.28
	KWB-5	Shallow	670729.55	525244.51	3,362.60	3,364.72	3,337.90	24.7 to 38.7	06/16/20	25.72	27.11	3,338.72	1.39
									10/06/20	25.97	28.09	3,338.33	2.12
	KWB-6	Shallow	670449.36	526158.70	3,358.02	3,360.30	3,340.52	17.5 to 36.5	06/16/20	23.89	26.45	3,335.90	2.56
									10/06/20	23.98	26.61	3,335.79	2.63

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Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
South Refinery	MW-28	Shallow	671508.38	524521.56	3,366.79	3,370.27	3,341.79	25 to 30	06/16/20	--	20.18	3,350.09	--
									10/06/20	--	21.03	3,349.24	--
	MW-48	Shallow	670689.39	524080.35	3,363.04	3,362.97	Unknown	Unknown	06/16/20	20.79	20.82	3,342.17	0.03
									10/06/20	21.41	21.49	3,341.54	0.08
	MW-50	Shallow	671502.45	521857.84	3,368.91	3,371.05	Unknown	Unknown	06/16/20	--	14.85	3,356.20	--
									10/06/20	--	15.41	3,355.64	--
	MW-52	Shallow	670165.24	523370.99	3,368.36	3,368.30	Unknown	Unknown	06/16/20	--	20.83	3,347.47	--
									10/06/20	--	21.54	3,346.76	--
	MW-64	Shallow	670716.03	523338.61	3,365.56	3,369.52	3,350.56	15 to 30	06/16/20	20.95	20.96	3,348.57	0.01
									10/06/20	--	21.67	3,347.85	--
	MW-65	Shallow	670949.22	523711.75	3,363.84	3,363.60	3,349.34	14.5 to 29.5	06/16/20	17.84	18.99	3,345.53	1.15
									10/06/20	19.12	19.62	3,344.38	0.50
	MW-66	Shallow	671247.57	524560.06	3,363.66	3,363.46	3,349.06	14.6 to 29.6	06/16/20	--	19.34	3,344.12	--
									10/06/20	--	19.95	3,343.51	--
	MW-99	Shallow	671652.52	524579.74	3,365.11	3,364.51	3,353.11	12 to 27	06/16/20	--	20.07	3,344.44	--
									10/06/20	20.46	21.52	3,343.84	1.06
	MW-101	Shallow	671627.36	523504.79	3,362.98	3366.148[4]	3,354.98	8 to 23	06/16/20	--	14.25	3,351.90	--
									10/06/20	--	15.06	3,351.09	--
	MW-102	Shallow	671176.70	522937.01	3,365.51	3,367.64	3,353.51	12 to 27	06/16/20	--	16.65	3,350.99	--
									10/06/20	--	17.00	3,350.64	--
	MW-103	Shallow	670472.55	522607.80	3,370.89	3,372.47	3,363.89	7 to 22	06/16/20	--	17.69	3,354.78	--
									10/06/20	--	18.30	3,354.17	--
	MW-104	Shallow	670450.35	522729.44	3,369.41	3,371.43	3,366.41	3 to 18	06/16/20	--	13.85	3,357.58	--
									10/06/20	--	14.31	3,357.12	--
	MW-105	Shallow	671924.44	522454.93	3,365.20	3,364.99	3,357.20	8 to 18	06/16/20	--	9.69	3,355.30	--
									10/06/20	--	11.18	3,353.81	--
	MW-106	Shallow	672207.14	523454.55	3,359.29	3,358.98	3,359.29	0 to 11	06/16/20	--	10.32	3,348.66	--
									10/06/20	--	11.81	3,347.17	--
	MW-107	Shallow	671961.38	524600.45	3,359.63	3,359.44	3,347.63	12 to 22	06/16/20	16.43	18.35	3,342.63	1.92
									10/06/20	17.35	18.68	3,341.82	1.33
	MW-109	Shallow	670174.25	523065.52	3,368.27	3,368.09	3,353.27	15 to 29.5	06/16/20	--	18.89	3,349.20	--
									10/06/20	--	19.52	3,348.57	--
	MW-110	Shallow	670174.33	522796.69	3,368.46	3,368.03	3,353.46	15 to 29.5	06/16/20	--	15.45	3,352.58	--
									10/06/20	--	16.12	3,351.91	--
	MW-139	Shallow	670687.2	522149.2	3374.32	3374.05	3,364.32	10 to 30	06/16/20	--	13.86	3,360.19	--
									10/06/20	--	14.51	3,359.54	--

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Area	Well ID	Water-Bearing Zone [1]	Northing (ft)	Easting (ft)	Land Surface Elevation (ft amsl)	TOC Elevation (ft amsl)	Top of Screen Elevation (ft amsl)	Screen Interval (ft bgs)	Date Measured	Depth to PSH (ft btoc)	Depth to Water (ft btoc)	Corrected Groundwater Elevation [2] (ft amsl)	PSH Thickness (ft)
South Refinery	RW-4	Shallow	671378.27	523010.47	3,364.41	3,364.86	Unknown	Unknown	06/16/20	--	15.05	3,349.81	--
									10/06/20	--	15.58	3,349.28	--
	RW-5R	Shallow	671258.01	523662.01	3,362.79	3,368.56	3,349.79	13 to 33	06/16/20	22.60	24.32	3,345.62	1.72
									10/06/20	21.04	21.33	3,347.46	0.29
	RW-6	Shallow	670969.39	522843.22	3,366.03	3,368.36	Unknown	Unknown	06/16/20	23.60	26.12	3,344.26	2.52
									10/06/20	17.51	21.25	3,350.10	3.74
	RW-11-0	Shallow	669938.15	527541.66	3,351.48	3,353.95	Unknown	Unknown	06/16/20	DRY	DRY	--	DRY
									10/06/20	DRY	DRY	--	DRY
	RW-15C	Shallow	670820.45	524123.41	3,362.65	3,361.41	Unknown	Unknown	06/16/20	18.71	18.99	3,342.64	0.28
									10/06/20	19.26	19.30	3,342.14	0.04
	RW-19	Shallow	670611.43	524592.99	3,367.09	3,369.11	3,356.09	11 to 46	06/16/20	27.25	27.30	3,341.85	0.05
									10/06/20	27.80	27.89	3,341.29	0.09
South RO Reject Field	MW-114	Shallow	673082.16	523818.86	3,358.62	3,361.68	3,338.62	20 to 35	06/16/20	--	15.98	3,345.70	--
									10/06/20	--	17.38	3,344.30	--
	MW-115	Shallow	673997.34	523932.93	3,356.48	3,359.31	3,346.48	10 to 25	06/16/20	--	16.18	3,343.13	--
									10/06/20	--	17.89	3,341.42	--
	MW-116	Shallow	673966.06	525339.63	3,350.99	3,353.77	3,340.99	10 to 25	06/16/20	--	16.18	3,337.59	--
									10/06/20	--	17.18	3,336.59	--
TEL	MW-49	Shallow	672051.80	523610.79	3,359.73	3,359.63	Unknown	Unknown	06/16/20	--	12.95	3,346.68	--
									10/06/20	--	14.15	3,345.48	--
	TEL-1	Shallow	672966.33	523412.82	3,356.79	3,358.23	3,343.79	13 to 23	06/16/20	--	14.52	3,343.71	--
									10/06/20	16.14	16.80	3,341.96	0.66
	TEL-2	Shallow	672885.90	523419.29	3,356.80	3,359.12	3,343.80	13 to 23	06/16/20	--	15.20	3,343.92	--
									10/06/20	16.87	17.25	3,342.17	0.38
	TEL-3	Shallow	672796.06	523459.33	3,356.43	3,358.33	3,343.43	13 to 23	06/16/20	14.10	14.16	3,344.22	0.06
									10/06/20	--	15.90	3,342.43	--
	TEL-4	Shallow	672715.99	523181.18	3,358.21	3,360.24	3,345.21	13 to 23	06/16/20	--	12.67	3,347.57	--
									10/06/20	--	14.80	3,345.44	--
TMD	MW-8	Shallow	673215.93	529055.18	3,334.81	3,336.42	Unknown	Unknown	06/16/20	--	15.87	3,320.55	--
									10/06/20	--	16.59	3,319.83	--
	MW-9	Shallow	673169.56	529232.03	3,334.50	3,336.20	Unknown	Unknown	06/16/20	--	16.43	3,319.77	--
									10/06/20	--	17.12	3,319.08	--
	MW-16	Shallow	675613.35	534389.17	3,313.50	3,316.12	3,305.00	8.5 to 19	06/16/20	--	9.66	3,306.46	--
									10/06/20	--	10.39	3,305.73	--
	MW-20	Shallow	673800.56	527834.67	3,338.43	3,340.91	3,328.93	9.5 to 23.5	06/16/20	--	17.08	3,323.83	--
									10/06/20	--	18.33	3,322.58	--

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TMD	MW-21	Shallow	673180.38	529150.62	3,334.65	3,337.31	3,327.15	7.5 to 22	06/16/20	--	15.21	3,322.10	--
									10/06/20	--	15.76	3,321.55	--
	MW-25	Shallow	675386.30	537955.86	3,310.35	3,312.29	3,294.60	15.75 to 25.25	06/16/20	--	12.82	3,299.47	--
									10/06/20	--	15.96	3,296.33	--
	MW-26	Shallow	676229.18	535348.61	3,312.08	3,314.87	3,296.83	15.25 to 24.25	06/16/20	--	7.76	3,307.11	--
									10/06/20	--	14.00	3,300.87	--
	MW-27	Shallow	674495.64	532942.65	3,319.46	3,320.85	3,301.21	18.25 to 27.75	06/16/20	--	18.93	3,301.92	--
									10/06/20	--	20.42	3,300.43	--
	MW-46R	Shallow	674223.03	524920.28	3,350.41	3,350.11	3,346.91	3.5 to 18.5	06/16/20	--	13.33	3,336.78	--
									10/06/20	--	14.56	3,335.55	--
	MW-68	Shallow	674301.02	531466.90	3,325.81	3,328.21	3,311.06	14.75 to 24.5	06/16/20	--	21.09	3,307.12	--
									10/06/20	--	21.12	3,307.09	--
	MW-71	Shallow	673016.80	529560.41	3,332.99	3,335.29	3,323.24	9.75 to 19.5	06/16/20	--	16.63	3,318.66	--
									10/06/20	--	17.41	3,317.88	--
	MW-89	Shallow	675221.56	533835.00	3,316.38	3,318.32	3,314.38	2 to 17	06/16/20	--	12.62	3,305.70	--
									10/06/20	--	13.08	3,305.24	--
	NP-1	Shallow	672992.73	528035.04	3,339.69	3,342.40	3,330.19	9.5 to 19	06/16/20	--	18.18	3,324.22	--
									10/06/20	--	18.74	3,323.66	--
	NP-2	Shallow	673571.19	527611.64	3,340.58	3,342.77	3,331.08	9.5 to 18.5	06/16/20	--	19.23	3,323.54	--
									10/06/20	--	20.56	3,322.21	--
	NP-3	Shallow	673990.66	528019.54	3,340.40	3,342.93	3,330.90	9.5 to 18.5	06/16/20	--	19.02	3,323.91	--
									10/06/20	--	20.47	3,322.46	--
	NP-4	Shallow	674337.35	528351.85	3,343.24	3,345.73	3,318.74	24.5 to 33.5	06/16/20	--	31.43	3,314.30	--
									10/06/20	--	33.81	3,311.92	--
	NP-6	Shallow	672945.23	529083.91	3,336.31	3,338.05	3,327.56	8.75 to 18.75	06/16/20	--	14.57	3,323.48	--
									10/06/20	--	15.14	3,322.91	--
	NP-8	Shallow	675399.60	538245.49	3,310.53	3,314.67	Unknown	Unknown	06/16/20	--	11.15	3,303.52	--
									10/06/20	--	14.27	3,300.40	--
	NP-9	Shallow	674767.14	523571.69	3,357.86	3,360.62	Unknown	Unknown	06/16/20	--	16.78	3,343.84	--
									10/06/20	--	18.40	3,342.22	--

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Up-Gradient	UG-1	Shallow	672453.27	520746.73	3,373.02	3,372.94	3,365.02	8 to 23	06/15/20	--	13.02	3,359.92	--
									10/06/20	--	--	--	--
	UG-2	Shallow	670726.77	520942.36	3,380.30	3,380.41	3,365.30	15 to 30	06/15/20	--	16.81	3,363.60	--
									10/06/20	--	--	--	--
	UG-3R	Shallow	671992.70	519424.77	3,384.62	3,384.08	3,367.62	17 to 37	06/15/20	--	22.37	3,361.71	--
									10/06/20	--	--	--	--
	UG-4	Shallow	674087.85	520541.74	3,377.78	3,377.36	3,358.28	19.5 to 39.5	06/15/20	--	19.58	3,357.78	--
							3,358.28		10/06/20	--	--	--	--

Notes:

[1] Wells screened in the shallow water-bearing zone are typically screened at depths ranging between 5 and 35 ft bgs. The shallow water-bearing zone varies between confined and unconfined conditions. Wells screened in the valley fill zone are typically screened at depths ranging between 35 and 70 ft bgs. The clay lens separating the shallow and valley fill zones is discontinuous in some locations resulting in connectivity between the two zones.

[2] Water elevations corrected for PSH, if present, using a specific gravity of 0.8.

[3] Well not located.

[4] Well converted to flush-mount; new survey data from 9/30/2020.

[5] PSH not measured due to pump interference.

[6] Only PSH present in well.

Definitions:

ft = feet

-- = not applicable

amsl = above mean sea level

bgs = below ground surface

btoc = below top of casing

NCL = North Colony Landfarm

TEL = Tetra Ethyl Lead Surface Impoundment

unknown = screen interval not readily availble

TMD = Three Mile Ditch

PSH = phase separated hydrocarbons

RO = Reverse Osmosis

NM = not measured

TMD = Three Mile Ditch

TOC = Top of Casing

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Table 2 - Well Purging and Water Quality Field Measurement Data

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HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
Cross-Gradient	KWB-13	Bladder	6/16/20	1755	25.3	3,020	0.302	5.4	6.74	-6.5	Cloudy, tan
	RA-3156	Grab	6/17/20	1520	20.7	1,703	0.170	2.3	7.00	-58.4	Cloudy, black
	MW-136	Low Flow	6/17/20	915	21.2	6,280	0.628	1.0	6.95	93.2	Clear
			10/6/20	1220	22.0	5,380	0.538	1.6	6.75	110.6	Clear
Evaporation Ponds	MW-1R	Low Flow	6/17/20	1000	18.2	5,420	0.542	1.5	7.25	-116.9	Clear
	MW-2A	Low Flow	6/17/20	855	20.3	5,040	0.504	1.4	7.44	-124.9	Clear
			10/6/20	1155	23.6	6,400	0.640	1.4	7.23	-20.3	Clear
	MW-3	Low Flow	6/17/20	1140	21.7	6,870	0.687	1.8	7.01	-17.5	Clear
			10/7/20	930	19.5	6,540	0.654	2.0	7.00	-16.5	Clear
	MW-4A	Low Flow	6/16/20	1555	22.5	5,690	0.569	2.0	7.06	-175.2	Clear, black particles
			10/6/20	1200	22.1	6,730	0.673	2.5	7.00	-149.6	Clear, black particles
	MW-5A	Low Flow	6/16/20	1450	22.1	11,790	1.179	1.7	7.08	-117.5	Clear, black particles
			10/6/20	1050	20.4	9,570	1.600	1.6	7.08	-138.1	Clear, orange particles
	MW-6A	Low Flow	6/16/20	1055	21.7	4,380	0.438	1.6	7.57	-139.7	Clear
	MW-7A	Low Flow	6/16/20	1345	21.0	9,870	0.987	1.3	7.23	-113.9	Clear
			10/6/20	940	20.2	8,450	0.845	1.5	7.06	-93.3	Clear
	MW-10	Low Flow	6/17/20	940	20.2	6,800	0.680	2.0	6.91	-111.9	Clear, orange particles
			10/6/20	1445	21.1	6,750	0.675	2.3	6.93	-107.5	Clear, orange particles
	MW-11A	Low Flow	6/17/20	1235	26.7	16,190	1.619	2.2	6.59	-38.5	Clear, orange particles
			10/7/20	915	19.3	25,200	2.520	1.8	6.78	33.0	Clear
	MW-15	Low Flow	6/17/20	1045	19.3	4,270	0.427	1.6	7.34	25.8	Clear
	MW-18A	Low Flow	6/16/20	1630	19.4	15,510	1.551	1.1	7.15	-189.8	Clear
			10/6/20	1230	20.2	18,870	1.887	1.3	7.22	-163.4	Clear
	MW-22A	Low Flow	6/17/20	1025	20.1	16,020	1.602	1.8	6.91	-34.8	Clear
			10/6/20	1340	21.2	14,440	1.444	1.8	6.94	-97.9	Clear
	MW-70	Low Flow	6/16/20	1800	20.5	5,970	0.597	1.9	7.09	-94.8	Clear
			10/6/20	1320	21.2	6,260	0.626	1.0	7.16	-102.4	Clear
	MW-72	Low Flow	6/16/20	1650	20.8	11,370	1.137	1.4	6.96	20.6	Clear
	MW-73	Low Flow	6/16/20	1420	20.4	11,860	1.186	1.3	7.33	-75.7	Clear
	MW-74	Low Flow	6/16/20	1315	20.6	10,430	1.043	1.3	7.19	65.5	Clear
			10/6/20	1435	22.6	10,530	1.053	1.0	7.10	58.0	Clear
	MW-75	Low Flow	6/17/20	1540	21.5	7,340	0.734	1.1	7.24	-166.8	Clear
			10/6/20	1625	20.2	7,060	0.706	1.3	7.18	-153.8	Clear
	MW-76	Low Flow	6/17/20	1325	22.8	7,170	0.717	1.8	6.81	-202.5	Clear
			10/6/20	1720	20.2	7,750	0.775	1.8	6.83	-205.6	Clear
	MW-77	Low Flow	6/17/20	1410	23.1	7,980	0.798	1.8	6.85	-177.4	Clear
	MW-78	Low Flow	6/17/20	1455	21.1	4,410	0.441	1.8	7.04	-65.1	Clear, gold tint

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Table 2 - Well Purging and Water Quality Field Measurement Data

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HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
Evaporation Ponds	MW-79	Low Flow	6/17/20	1155	20.0	9,070	0.907	1.5	7.10	-57.9	Clear
			10/6/20	1030	20.8	8,650	0.865	1.2	7.19	-54.4	Clear
	MW-80	Low Flow	6/17/20	1110	19.3	6,070	0.607	1.4	7.23	13.0	Clear
	MW-81	Low Flow	6/17/20	1025	20.8	5,990	0.599	1.5	7.26	38.3	Clear
	MW-82	Low Flow	6/17/20	1245	22.2	7,280	0.728	1.4	7.36	-150.7	Clear
	MW-83	Low Flow	6/17/20	1240	22.7	6,540	0.654	1.5	6.81	-49.2	Clear
			10/7/20	845	20.6	6,140	0.614	1.7	6.96	-145.9	Clear
	MW-84	Low Flow	6/17/20	1330	22.1	10,140	1.014	1.4	7.16	-117.6	Clear
			10/6/20	1550	24.4	10,100	1.010	1.0	7.13	-134.0	Clear, yellow tint
	MW-86	Low Flow	10/6/20	1635	23.5	7,570	0.757	1.0	6.91	-355.7	Yellow tint, black particles
	MW-87	Low Flow	6/16/20	1545	21.2	11,570	1.157	1.1	7.19	-50.3	Clear
			10/6/20	1150	20.4	14,670	1.467	1.6	7.13	-73.4	Clear
	MW-88	Low Flow	6/16/20	1725	22.0	7,160	0.716	1.3	7.07	-144.0	Clear, orange particles
			10/6/20	1255	20.6	6,860	0.686	1.5	7.01	-52.3	Clear, orange particles
	MW-120	Low Flow	6/16/20	1145	22.5	7,990	0.799	1.4	7.41	-148.5	Clear
			10/6/20	900	21.1	8,370	0.837	1.2	7.19	-132.6	Clear
	MW-121	Low Flow	6/16/20	1230	21.3	5,640	0.564	1.4	7.47	-33.6	Clear
			10/6/20	940	22.3	5,740	0.574	1.4	7.23	34.9	Clear
	MW-122	Low Flow	6/17/20	940	19.6	8,290	0.829	1.4	7.24	-83.6	Clear, small orange particles
			10/6/20	1115	21.5	5,500	0.550	1.1	7.32	-123.1	Clear
	MW-123	Low Flow	6/17/20	855	19.0	7,250	0.725	1.7	6.91	-121.5	Clear
			10/6/20	1530	20.2	6,430	0.643	1.8	6.91	-145.2	Clear
	MW-124	Low Flow	6/16/20	1710	18.9	10,240	1.024	1.4	7.09	-122.9	Clear, orange particles
			10/6/20	1405	21.2	11,790	1.179	1.4	7.19	-94.2	Clear, orange particles
	OCD-1R	Low Flow	6/17/20	1415	27.3	6,070	0.607	1.3	7.08	-28.5	Clear
			10/7/20	1000	18.4	6,840	0.684	1.5	7.22	14.9	Clear
	OCD-2A	Low Flow	6/17/20	1325	25.3	6,810	0.681	2.1	7.10	-19.5	Clear
			10/7/20	830	17.5	5,650	0.565	2.0	7.26	-124.9	Clear
	OCD-3	Low Flow	6/17/20	1145	26.3	3,810	0.381	2.1	7.35	-11.7	Clear
			10/6/20	1640	20.1	4,050	0.405	1.4	7.52	-12.4	Clear
	OCD-4	Low Flow	6/17/20	1055	25.4	13,120	1.312	2.4	7.12	-19.5	Clear
			10/6/20	1600	20.8	14,950	1.495	1.3	7.26	-85.7	Clear
	OCD-5	Low Flow	6/17/20	1010	24.7	11,660	1.166	2.8	6.96	-77.8	Slightly cloudy, orange tint
			10/6/20	1520	20.4	15,790	1.579	1.3	7.25	-72.6	Clear, orange particles
	OCD-6	Low Flow	6/16/20	1605	19.7	12,910	1.291	1.3	7.07	-78.4	Clear, orange particles
			10/6/20	1250	21.8	15,850	1.585	1.0	7.08	-96.5	Clear

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Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
Evaporation Ponds	OCD-7AR	Low Flow	6/16/20	1510	22.3	12,950	1.295	1.3	7.14	-145.1	Clear
			10/6/20	1330	24.3	13,070	1.307	1.3	7.11	-135.5	Clear
	OCD-8A	Low Flow	6/16/20	1250	21.4	18,540	1.854	1.8	7.01	-146.9	Clear
			10/6/20	840	18.8	17,880	1.788	1.7	6.92	-110.9	Clear
Field East of Refinery	KWB-1A	Low Flow	6/17/20	1000	21.9	6,760	0.676	2.1	6.91	112.2	Clear
			10/6/20	1325	22.1	5,770	0.577	1.0	6.70	128.4	Clear
	KWB-7	Low Flow	10/6/20	1200	23.2	2,369	0.237	1.9	6.89	-194.3	Clear
	KWB-8	Low Flow	10/6/20	1250	21.6	5,198	0.520	0.8	6.89	-308.5	Clear
	KWB-11A	Low Flow	6/16/20	1425	22.3	3,974	0.397	0.7	6.78	-91.3	Clear
			10/6/20	1025	19.4	3,861	0.386	1.0	6.77	14.5	Clear
	KWB-11B	Low Flow	6/16/20	1515	21.7	3,034	0.303	1.1	6.87	-28.7	Clear
			10/6/20	1110	20.1	3,143	0.314	1.1	6.93	120.8	Clear
	KWB-12A	Low Flow	10/6/20	930	19.1	2,460	0.246	3.4	6.34	51.3	Clear
	KWB-12B	Bladder	6/16/20	1355	23.9	2,690	0.269	4.7	6.75	75.7	Clear
			10/6/20	1015	19.4	3,020	0.302	4.1	6.39	112.1	Clear
	MW-57	Bladder	6/16/20	1525	24.1	4,270	0.427	3.4	6.73	99.6	Clear
			10/6/20	1130	20.5	3,220	0.322	3.3	6.48	107.3	Clear
	MW-111	Bladder	6/17/20	1045	25.5	4,270	0.427	1.6	6.62	-103.0	Cloudy, tan
	MW-113	Low Flow	6/17/20	1510	21.2	2,310	0.231	1.6	6.65	-106.4	Clear
			10/7/20	900	20.1	3,620	0.362	1.6	6.64	-150.2	Clear
	MW-125	Low Flow	6/16/20	1055	20.9	4,180	0.418	2.1	6.81	42.8	Clear
			10/7/20	1050	19.7	4,371	0.437	2.1	6.80	61.2	Clear
	MW-126A	Low Flow	6/16/20	1505	23.5	4,650	0.465	1.1	6.92	-140.6	Clear
			10/6/20	1010	21.4	4,570	0.457	1.3	6.63	-77.4	Clear
	MW-126B	Low Flow	6/16/20	1425	22.8	6,030	0.603	1.0	6.87	103.4	Clear
			10/6/20	1050	21.2	5,360	0.536	1.8	6.67	82.5	Clear
	MW-130	Low Flow	6/17/20	1410	23.7	2,420	0.242	1.6	6.67	-32.8	Clear
			10/7/20	855	21.6	3,010	0.301	2.3	6.70	51.2	Clear
	MW-134	Low Flow	6/17/20	1340	23.7	4,200	0.420	1.9	6.88	65.7	Clear
			10/6/20	1630	22.1	6,250	0.625	0.9	6.83	123.5	Clear
	MW-135	Bladder	6/17/20	1420	20.5	5,471	0.547	2.2	6.81	84.6	Clear
			10/7/20	1030	19.7	7,400	0.740	3.6	6.74	46.1	Clear
	MW-145	Low Flow	10/6/20	1130	24.0	4,670	0.467	2.3	6.72	129.7	Clear
	MW-146	Low Flow	10/6/20	1100	24.5	4,740	0.474	2.4	6.81	123.1	Clear
	MW-147	Low Flow	10/6/20	1020	21.3	5,310	0.531	5.3	6.65	152.5	Sl. Cloudy
	MW-148	Low Flow	10/6/20	940	22.3	3,610	0.361	5.9	6.47	159.7	Clear

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Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
Field East of Refinery	RA-4196	Grab	6/17/20	1550	22.6	2,238	0.224	3.2	7.18	-76.8	Clear
			10/6/20	1330	23.7	2,186	0.219	3.1	7.19	-39.8	Clear
	RA-4798	Grab	6/17/20	1605	20.2	2,196	0.220	3.9	7.21	-58.2	Clear
			10/6/20	1315	21.4	2,396	0.240	3.8	7.21	-43.9	Clear
	RW-12R	Low Flow	6/17/20	1535	25.1	2,880	0.288	0.8	6.84	-289.3	Clear
	RW-18A	Low Flow	6/16/20	950	22.1	3,630	0.363	2.0	6.95	109.1	Clear
North Refinery	MW-23	Low Flow	6/17/20	1325	28.1	2,760	0.276	1.1	6.94	-310.6	Clear, yellow tint
			10/6/20	1705	23.2	2,320	0.232	1.1	6.93	-334.4	Clear, yellow tint
	MW-29	Low Flow	6/16/20	1020	23.1	4,270	0.427	1.7	6.88	-325.8	
			10/7/20	925	22.9	3,070	0.307	1.2	7.23	-309.9	Clear
	MW-39	Low Flow	6/16/20	1135	27.3	2,830	0.283	1.5	7.26	-297.3	Clear
			10/6/20	1010	25.2	2,730	0.273	1.6	7.26	-299.1	Clear
	MW-40	Low Flow	6/16/20	925	21.7	2,670	0.267	1.5	6.70	-365.9	Clear, black particles
	MW-41	Low Flow	6/16/20	1040	25.1	5,300	0.530	2.2	6.56	-217.4	Clear
	MW-42	Low Flow	6/17/20	1420	25.2	6,110	0.611	2.4	6.76	-341.8	Clear
	MW-43	Low Flow	6/17/20	1425	29.1	3,190	0.319	1.1	6.72	-346.3	Clear
			10/6/20	1510	26.8	3,120	0.312	1.6	6.75	-382.7	Clear
	MW-59	Low Flow	6/17/20	1015	26.2	2,910	0.291	2.5	6.80	-244.5	Clear
	MW-60	Low Flow	6/17/20	1145	27.7	3,560	0.356	2.9	6.57	-303.0	Clear
			10/7/20	1025	24.0	3,470	0.347	2.0	6.55	-315.6	Clear
	MW-61	Low Flow	6/17/20	1025	26.4	2,980	0.298	1.1	6.64	-367.1	Clear
			10/6/20	1335	27.2	2,310	0.231	1.0	6.87	-354.7	Clear
	MW-62	Low Flow	6/17/20	1220	26.5	2,800	0.280	1.4	6.49	-351.3	Clear
			10/6/20	1535	22.3	2,570	0.257	1.3	6.57	-353.1	Clear
	MW-62R	Low Flow	10/6/20	1620	23.6	2,200	0.220	1.3	6.61	-298.8	Clear, gray tint
	MW-90	Low Flow	6/16/20	1445	23.1	3,730	0.373	1.0	6.71	-376.3	Clear
			10/6/20	1245	23.6	3,540	0.354	1.6	6.65	-370.2	Clear
	MW-91	Low Flow	6/16/20	1400	24.7	3,870	0.387	1.4	6.48	-387.9	Clear, yellow tint
	MW-93	Low Flow	6/17/20	1125	23.9	2,970	0.297	1.0	6.47	-353.0	Clear
	MW-95	Low Flow	6/16/20	1645	24.6	2,860	0.286	0.6	6.73	-317.1	Clear
	MW-96	Low Flow	6/16/20	1530	24.7	2,210	0.221	1.1	6.70	-369.0	Clear
			10/6/20	1450	25.1	2,180	0.218	1.4	6.67	-365.1	Clear
	MW-98	Low Flow	6/16/20	1355	25.5	3,210	0.321	0.8	6.67	-376.6	Clear
			10/6/20	1105	25.6	2,650	0.265	0.8	6.62	-380.0	Clear

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Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
North Refinery	RW-7	Low Flow	6/17/20	1220	25.4	2,410	0.241	1.2	6.64	-368.5	Clear, black tint with black particles, sheen
	RW-9	Low Flow	6/16/20	1235	26.0	3,610	0.361	1.3	6.83	-346.8	Clear
	RW-10	Low Flow	6/16/20	925	22.3	2,520	0.252	0.9	7.10	-326.5	Clear
	RW-16B	Low Flow	6/16/20	940	25.5	4,080	0.408	2.0	6.79	29.2	Clear
	RW-17A	Low Flow	6/17/20	1510	22.3	8,270	0.827	2.9	8.02	-77.5	Clear
North RO Reject Field	MW-117	Low Flow	6/16/20	1115	20.3	3,220	0.322	2.6	6.48	76.1	Clear
			10/6/20	1420	21.2	3,010	0.301	2.5	6.71	55.7	Clear
	MW-118	Low Flow	6/16/20	1020	18.2	3,410	0.341	3.4	6.41	75.9	Clear
			10/6/20	1335	20.4	2,940	0.294	3.8	6.87	58.3	Clear
	MW-119	Low Flow	6/16/20	945	19.7	6,470	0.647	1.4	7.06	105.3	Clear
			10/6/20	920	20.4	5,950	0.595	1.8	6.81	59.8	Clear
NCL	MW-18	Low Flow	6/17/20	1440	24.3	3,280	0.328	1.3	6.74	-242.5	Clear
	MW-45	Low Flow	6/17/20	1520	23.2	4,530	0.453	1.4	6.93	-227.8	Clear
			10/6/20	1610	24.2	2,720	0.272	0.9	7.48	-226.3	Clear
	MW-53R	Low Flow	10/6/20	850	21.7	2,190	0.219	2.9	6.88	71.4	Clear
	MW-54A	Low Flow	6/16/20	955	22.7	2,580	0.258	1.7	6.53	65.0	Clear
			10/6/20	930	21.7	2,590	0.259	1.9	6.50	32.9	Clear
	MW-55	Low Flow	6/16/20	1040	18.8	3,280	0.328	1.9	6.58	72.3	Clear
			10/7/20	825	20.9	2,900	0.290	2.0	6.59	38.8	Clear
	MW-56	Low Flow	6/16/20	1125	22.3	3,850	0.385	1.3	6.70	-156.0	Clear
	MW-108	Low Flow	6/17/20	925	24.8	1,761	0.176	1.3	6.78	-378.9	Clear, yellow tint
			10/6/20	1410	26.7	1,632	0.163	1.4	6.80	-389.6	Clear, yellow tint
	NCL-31	Low Flow	6/17/20	1005	26.1	2,890	0.289	1.3	6.82	-278.6	Clear
			10/6/20	1325	26.0	2,710	0.271	1.2	7.05	-286.1	Clear
	NCL-32	Low Flow	6/17/20	1050	23.0	3,200	0.320	1.1	6.79	-127.7	Clear
			10/7/20	905	20.5	3,150	0.315	1.6	6.78	31.3	Clear
	NCL-33	Low Flow	6/17/20	1355	24.7	4,780	0.478	1.1	6.45	-241.7	Clear, orange particles
			10/7/20	1030	22.8	4,770	0.477	1.6	6.44	-68.4	Clear, orange particles
	NCL-34A	Low Flow	6/17/20	1310	24.6	2,400	0.240	1.4	6.54	-370.1	Clear
	NCL-44	Low Flow	6/17/20	1135	24.3	3,170	0.317	1.9	6.56	-280.4	Clear
			10/7/20	950	20.8	3,050	0.305	1.7	6.61	-207.1	Clear
	NCL-49	Low Flow	6/16/20	1045	23.3	3,630	0.363	1.9	6.87	133.7	Clear
			10/6/20	1010	21.9	3,570	0.357	2.6	6.87	81.7	Clear
South Refinery	MW-28	Low Flow	6/17/20	1340	24.3	4,480	0.448	1.2	7.22	-318.0	Clear
			10/7/20	1110	23.4	3,100	0.310	1.1	7.32	-197.3	Clear
	MW-50	Low Flow	6/16/20	1235	25.1	7,960	0.796	1.1	6.84	-257.1	Clear
			10/6/20	1125	25.0	8,820	0.882	1.6	6.81	-6.1	Clear

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Table 2 - Well Purging and Water Quality Field Measurement Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
South Refinery	MW-52	Low Flow	6/17/20	1320	21.2	2,560	0.256	1.4	6.97	-202.4	Clear
			10/7/20	940	20.7	3,190	0.319	1.7	6.84	58.3	Clear
	MW-64	Low Flow	6/16/20	1530	35.9	2,360	0.236	2.4	6.87	-329.0	Clear
			10/6/20	1305	34.6	2,320	0.232	3.6	6.68	-322.3	Clear
	MW-66	Low Flow	6/17/20	1245	25.0	2,730	0.273	1.6	6.82	-170.3	Clear
			10/7/20	925	22.4	1,529	0.153	2.0	6.60	-214.7	Clear
	MW-99	Low Flow	6/17/20	1250	28.0	1,031	0.103	2.4	6.49	-282.2	Clear, light gray tint
	MW-101	Low Flow	6/16/20	1505	26.5	1,641	0.164	2.4	6.87	-209.9	Clear
			10/6/20	900	24.7	1,734	0.173	2.0	6.71	-311.8	Clear
	MW-102	Low Flow	6/16/20	1650	27.6	2,260	0.226	2.2	6.84	-312.4	Clear
			10/6/20	1410	28.5	2,240	0.224	3.1	6.72	-297.2	Clear
	MW-103	Low Flow	6/16/20	1310	33.6	12,040	1.204	1.7	7.03	-324.7	Clear
	MW-104	Low Flow	6/16/20	1415	27.2	1,804	0.180	1.4	6.95	-327.5	Clear
			10/6/20	1210	28.2	1,688	0.169	1.9	6.77	-333.9	Clear
	MW-105	Low Flow	6/17/20	925	24.1	1,736	0.174	1.1	7.15	-354.7	Clear
			10/6/20	1515	27.4	1,254	0.125	0.7	6.75	-362.6	Clear
	MW-106	Low Flow	6/16/20	1625	26.6	2,830	0.283	1.6	6.63	-377.1	Clear
			10/6/20	1200	25.6	3,320	0.332	1.9	6.53	-392.9	Clear
	MW-109	Low Flow	6/17/20	1235	22.6	2,460	0.246	0.8	7.04	-383.5	Clear
			10/7/20	900	24.0	2,690	0.269	1.3	7.23	-355.9	Clear
	MW-110	Low Flow	6/17/20	1150	21.2	1,701	0.170	1.3	7.18	-115.8	Clear
			10/7/20	1000	24.1	1,741	0.174	1.2	7.23	-271.7	Clear
	MW-139	Low Flow	6/16/20	1145	23.4	4,190	0.419	1.5	6.66	-282.9	Clear
			10/6/20	1055	22.5	4,190	0.419	1.6	6.70	-150.0	Clear
	RA-313	Grab	6/17/20	855	22.9	1,789	0.179	2.9	7.07	53.7	Clear
	RW-4	Low Flow	6/17/20	915	26.7	2,110	0.211	2.2	6.73	-303.8	Clear
South RO Reject Field	MW-114	Low Flow	6/16/20	1020	21.9	3,307	0.331	1.7	6.68	57.1	Clear
			10/7/20	1000	21.4	3,428	0.343	1.9	6.67	96.3	Clear
	MW-115	Low Flow	6/16/20	920	19.3	4,027	0.403	2.8	6.81	27.5	Clear
			10/7/20	915	19.5	5,048	0.505	2.6	6.80	67.5	Clear
	MW-116	Low Flow	6/16/20	1115	18.7	3,976	0.398	2.6	6.84	-42.2	Clear
			10/7/20	1025	20.2	3,510	0.351	1.9	6.73	-4.6	Clear
TEL	MW-49	Low Flow	6/16/20	1340	27.2	2,740	0.274	1.5	6.59	-373.4	Clear
			10/6/20	1300	25.7	2,870	0.287	2.5	6.55	-371.2	Clear
	TEL-1	Low Flow	6/16/20	1025	24.0	2,550	0.255	0.8	7.19	-279.1	Clear
	TEL-2	Low Flow	6/16/20	1125	25.8	3,290	0.329	0.7	6.92	-354.1	Clear, light sheen
	TEL-3	Low Flow	10/6/20	845	23.4	2,250	0.225	3.0	6.52	-356.8	Clear

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Table 2 - Well Purging and Water Quality Field Measurement Data

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well	Purge Method[1]	Date	Time	Temperature (°C)	Specific Conductivity (umho/cm)	Specific Conductivity (S/m)	DO (mg/L)	pH (std units)	ORP (mV)	Field Observations of Purge Water [2]
TEL	TEL-4	Low Flow	6/16/20	1255	24.5	3,830	0.383	0.7	6.77	-308.9	Clear
			10/6/20	955	24.2	3,210	0.321	0.8	6.48	-308.1	Clear
TMD	MW-8	Low Flow	6/17/20	1130	23.3	4,720	0.472	2.1	6.94	45.1	Clear
	MW-16	Low Flow	6/17/20	1135	18.5	4,833	0.483	1.3	6.86	84.6	Clear
	MW-20	Low Flow	6/17/20	1235	23.5	3,990	0.399	2.0	6.96	63.1	Clear
	MW-21	Low Flow	6/17/20	1035	23.6	4,950	0.495	1.7	7.00	31.8	Clear
			10/6/20	1545	23.3	7,460	0.746	1.0	6.91	128.9	Clear
	MW-25	Low Flow	6/17/20	910	18.8	3,530	0.353	1.6	7.30	34.4	Clear
	MW-26	Low Flow	6/17/20	1230	18.9	6,290	0.629	0.7	6.96	-22.7	Clear
	MW-27	Low Flow	6/17/20	1325	22.6	1,950	0.195	1.7	6.90	18.0	Clear
	MW-46R	Low Flow	6/17/20	1345	25.3	3,520	0.352	2.4	6.71	24.7	Clear
			10/7/20	940	18.4	3,090	0.309	2.1	6.82	40.5	Clear
	MW-68	Low Flow	6/17/20	940	23.8	2,780	0.278	1.3	6.96	-81.9	Clear
	MW-71	Low Flow	6/17/20	1415	20.4	6,059	0.606	1.5	6.94	-40.4	Clear
	MW-89	Low Flow	6/17/20	1040	19.9	3,381	0.338	2.3	6.89	64.7	Clear
	NP-1	Low Flow	6/17/20	940	22.5	4,090	0.409	2.0	6.67	19.1	Clear
			10/6/20	1415	20.6	4,625	0.463	1.6	6.74	36.3	Clear
Up-Gradient	UG-1	Low Flow	6/15/20	1810	26.6	3,190	0.319	4.1	6.97	130.3	Clear
	UG-2	Low Flow	6/15/20	1910	25.4	2,230	0.223	3.2	7.10	124.6	Clear
	UG-3R	Bladder	6/15/20	1630	24.2	2,260	0.226	5.6	6.70	77.0	Clear
	UG-4	Low Flow	6/15/20	1720	25.0	3,670	0.367	2.7	6.75	122.5	Clear

[1] **Purge Methods:**

Low Flow = peristaltic pump with dedicated tubing, purged until parameters stabilized

Bladder = bladder pump with dedicated tubing, purged until parameters stabilized

Grab = irrigation well sample collected from tap or valve

Definitions:

°C = Degrees Celsius

DO = Dissolved Oxygen

mg/L = milligrams per liter

mV = milliVolts

ORP = oxidation/reduction potential

S/m = Siemens per meter

std units = standard pH units

[2] **Potential Explanations of Water Quality Observations:**

"Odor" likely due to the presence of petroleum hydrocarbons

"Cloudy water" likely due to presence of suspended inorganic particles (silt, clay)
Dark, black, brown, yellow, gold, gray, orange, and "rusty" tints likely due to suspended clay/silt particles or microbial activity

"Particles" of varying color likely due to suspended clay/silt particles

"Orange algae" likely due to microbial activity

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Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Levels

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte	WQCC GW Human Health (20.6.2.3103.A)	WQCC GW Domestic (20.6.2.3103.B)	WQCC GW Irrigation (20.6.2.3103.C)	USEPA MCL	NMED Tap Water (Table A-1)	USEPA Tap Water	NMED TPH (Table 6-4)	CGWSL	CGWSL Source
TPH (mg/L)									
TPH - gasoline range organics							1.01E-02	1.01E-02	NMED TPH (Table 6-4)
TPH - diesel range organics							8.58E-02	8.58E-02	NMED TPH (Table 6-4)
TPH - diesel range organics (Evaporation Ponds)							1.67E-02	1.67E-02	NMED TPH (Table 6-4)
VOCs (mg/L)									
1,1,1-Trichloroethane	2.00E-01			2.00E-01				2.00E-01	WQCC GW Human Health (20.6.2.3103.A)
1,1,2,2-Tetrachloroethane	1.00E-02							1.00E-02	WQCC GW Human Health (20.6.2.3103.A)
1,1,2-Trichloroethane	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
1,1-Dichloroethane	2.50E-02							2.50E-02	WQCC GW Human Health (20.6.2.3103.A)
1,1-Dichloroethene	7.00E-03			7.00E-03				7.00E-03	WQCC GW Human Health (20.6.2.3103.A)
1,2-Dibromo-3-chloropropane				2.00E-04				2.00E-04	USEPA MCL
1,2-Dibromoethane (ethylene dibromide)	5.00E-05			5.00E-05				5.00E-05	WQCC GW Human Health (20.6.2.3103.A)
1,2-Dichloroethane	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
1,2-Dichloropropane	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
1,2,4-Trimethylbenzene						5.60E-02		5.60E-02	USEPA Tap Water
1,3,5-Trimethylbenzene						6.00E-02		6.00E-02	USEPA Tap Water
2-Butanone (methyl ethyl ketone)					5.56E+00			5.56E+00	NMED Tap Water (Table A-1)
2-Phenylbutane (sec-butylbenzene)						2.00E+00		2.00E+00	USEPA Tap Water
4-Methyl-2-Pentanone (methyl isobutyl ketone)					1.24E+00			1.24E+00	NMED Tap Water (Table A-1)
Acetone					1.41E+01			1.41E+01	NMED Tap Water (Table A-1)
Benzene	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Bromodichloromethane				8.00E-02				8.00E-02	USEPA MCL
Bromomethane					7.54E-03			7.54E-03	NMED Tap Water (Table A-1)
Carbon Disulfide					8.10E-01			8.10E-01	NMED Tap Water (Table A-1)
Carbon tetrachloride	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Chlorobenzene				1.00E-01				1.00E-01	USEPA MCL
Chloroethane (ethyl chloride)					2.09E+01			2.09E+01	NMED Tap Water (Table A-1)
Chloroform	1.00E-01			8.00E-02				8.00E-02	USEPA MCL
Chloromethane					2.03E-02			2.03E-02	NMED Tap Water (Table A-1)
cis-1,2-Dichloroethene	7.00E-02			7.00E-02				7.00E-02	WQCC GW Human Health (20.6.2.3103.A)
cis-1,3-Dichloropropene					4.71E-03			4.71E-03	NMED Tap Water (Table A-1)
Dibromochloromethane				8.00E-02				8.00E-02	USEPA MCL
Dichlorodifluoromethane					1.97E-01			1.97E-01	NMED Tap Water (Table A-1)
Ethylbenzene	7.00E-01			7.00E-01				7.00E-01	WQCC GW Human Health (20.6.2.3103.A)
Isopropylbenzene (cumene)					4.47E-01			4.47E-01	NMED Tap Water (Table A-1)
m-Xylene					1.93E-01			1.93E-01	NMED Tap Water (Table A-1)
Methyl acetate					1.99E+01			1.99E+01	NMED Tap Water (Table A-1)
Methylene chloride (dichloromethane)	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Methyl tert-butyl ether		1.00E-01						1.00E-01	WQCC GW Domestic (20.6.2.3103.B)
n-Butylbenzene						1.00E+00		1.00E+00	USEPA Tap Water
n-Propylbenzene						6.60E-01		6.60E-01	USEPA Tap Water
Naphthalene	3.00E-02							3.00E-02	WQCC GW Human Health (20.6.2.3103.A)
o-Xylene					1.93E-01			1.93E-01	NMED Tap Water (Table A-1)
Styrene	1.00E-01			1.00E-01				1.00E-01	WQCC GW Human Health (20.6.2.3103.A)
Tetrachloroethene	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Toluene	1.00E+00			1.00E+00				1.00E+00	WQCC GW Human Health (20.6.2.3103.A)
trans-1,2-Dichloroethene	1.00E-01			1.00E-01				1.00E-01	WQCC GW Human Health (20.6.2.3103.A)
trans-1,3-Dichloropropene					4.71E-03			4.71E-03	NMED Tap Water (Table A-1)
Trichloroethene	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Trichlorofluoromethane					1.14E+00			1.14E+00	NMED Tap Water (Table A-1)
Vinyl chloride	2.00E-03			2.00E-03				2.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Xylenes	6.20E-01			1.00E+01				6.20E-01	WQCC GW Human Health (20.6.2.3103.A)

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Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Levels

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Analyte	WQCC GW Human Health (20.6.2.3103.A)	WQCC GW Domestic (20.6.2.3103.B)	WQCC GW Irrigation (20.6.2.3103.C)	USEPA MCL	NMED Tap Water (Table A-1)	USEPA Tap Water	NMED TPH (Table 6-4)	CGWSL	CGWSL Source
Metals (mg/L)									
Aluminum			5.00E+00					5.00E+00	WQCC GW Irrigation (20.6.2.3103.C)
Arsenic	1.00E-02			1.00E-02				1.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Barium	2.00E+00			2.00E+00				2.00E+00	WQCC GW Human Health (20.6.2.3103.A)
Beryllium	4.00E-03			4.00E-03				4.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Boron			7.50E-01					7.50E-01	WQCC GW Irrigation (20.6.2.3103.C)
Cadmium	5.00E-03			5.00E-03				5.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Chromium	5.00E-02			1.00E-01				5.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Cobalt			5.00E-02					5.00E-02	WQCC GW Irrigation (20.6.2.3103.C)
Copper		1.00E+00		1.30E+00				1.00E+00	WQCC GW Domestic (20.6.2.3103.B)
Iron		1.00E+00						1.00E+00	WQCC GW Domestic (20.6.2.3103.B)
Lead	1.50E-02			1.50E-02				1.50E-02	WQCC GW Human Health (20.6.2.3103.A)
Manganese		2.00E-01						2.00E-01	WQCC GW Domestic (20.6.2.3103.B)
Mercury	2.00E-03			2.00E-03				2.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Molybdenum			1.00E+00					1.00E+00	WQCC GW Irrigation (20.6.2.3103.C)
Nickel			2.00E-01					2.00E-01	WQCC GW Irrigation (20.6.2.3103.C)
Selenium	5.00E-02			5.00E-02				5.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Silver	5.00E-02							5.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Vanadium					6.31E-02			6.31E-02	NMED Tap Water (Table A-1)
Water Quality Parameters (mg/L, unless noted otherwise)									
Chloride		2.50E+02						2.50E+02	WQCC GW Domestic (20.6.2.3103.B)
Cyanide	2.00E-01			2.00E-01				2.00E-01	WQCC GW Human Health (20.6.2.3103.A)
Fluoride	1.60E+00			4.00E+00				1.60E+00	WQCC GW Human Health (20.6.2.3103.A)
Nitrate (NO_3 as N)	1.00E+01			1.00E+01				1.00E+01	WQCC GW Human Health (20.6.2.3103.A)
pH (Std pH units)		6 to 9						6 to 9	WQCC GW Domestic (20.6.2.3103.B)
Sulfate		6.00E+02						6.00E+02	WQCC GW Domestic (20.6.2.3103.B)
Total Dissolved Solids		1.00E+03						1.00E+03	WQCC GW Domestic (20.6.2.3103.B)
SVOCs (mg/L)									
1,1'-Biphenyl					3.71E-02			3.71E-02	NMED Tap Water (Table A-1)
1-Methylnaphthalene	3.00E-02							3.00E-02	WQCC GW Human Health (20.6.2.3103.A)
2,4-Dimethylphenol					3.54E-01			3.54E-01	NMED Tap Water (Table A-1)
2-Methylnaphthalene	3.00E-02							3.00E-02	WQCC GW Human Health (20.6.2.3103.A)
2-Methylphenol								--	--
Acenaphthene					5.35E-01			5.35E-01	NMED Tap Water (Table A-1)
Anthracene					1.72E+00			1.72E+00	NMED Tap Water (Table A-1)
Atrazine	3.00E-03			3.00E-03				3.00E-03	WQCC GW Human Health (20.6.2.3103.A)
Benzo(a)pyrene	2.00E-04			2.00E-04				2.00E-04	WQCC GW Human Health (20.6.2.3103.A)
Benzo(g,h,i)perylene								--	--
Bis(2-ethylhexyl)phthalate				6.00E-03				6.00E-03	USEPA MCL
Butylbenzylphthalate						1.60E-02		1.60E-02	USEPA Tap Water
Carbazole								--	--
Dibenzofuran						7.90E-03		7.90E-03	USEPA Tap Water
Diethyl phthalate					1.48E+01			1.48E+01	NMED Tap Water (Table A-1)
Di-n-butylphthalate					8.85E-01			8.85E-01	NMED Tap Water (Table A-1)
Fluoranthene					8.02E-01			8.02E-01	NMED Tap Water (Table A-1)
Fluorene					2.88E-01			2.88E-01	NMED Tap Water (Table A-1)
Naphthalene	3.00E-02							3.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Phenanthrene					1.70E-01			1.70E-01	NMED Tap Water (Table A-1)
Phenol		5.00E-03			5.76E+00			5.76E+00	NMED Tap Water (Table A-1)
Pyrene					1.17E-01			1.17E-01	NMED Tap Water (Table A-1)

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Table 3 - Groundwater Screening Levels and Selected Critical Groundwater Screening Levels

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Analyte	WQCC GW Human Health (20.6.2.3103.A)	WQCC GW Domestic (20.6.2.3103.B)	WQCC GW Irrigation (20.6.2.3103.C)	USEPA MCL	NMED Tap Water (Table A-1)	USEPA Tap Water	NMED TPH (Table 6-4)	CGWSL	CGWSL Source
Other Parameters (mg/L, unless noted otherwise)									
Uranium	3.00E-02			3.00E-02				3.00E-02	WQCC GW Human Health (20.6.2.3103.A)
Polychlorinated Biphenyls	5.00E-04			5.00E-04				5.00E-04	WQCC GW Human Health (20.6.2.3103.A)

Definitions and Notes:

Blank cell indicates no standard is available

CGWSL = Critical Groundwater Screening Level

Heirarchy of selecting the CGWSL is as follows:

1. Lowest of either NM WQCC GW Standard (20.6.2.3103) or USEPA MCL.
2. If no NM WQCC GW Standard or USEPA MCL available, NMED Tap Water value.
3. If no NMED Tap Water value, USEPA Tap Water value, if available.
4. NMED TPH screening for "unknown oil" used for TPH-DRO.
5. NMED TPH screening value for "Diesel #2/New Crankase Oil" applied to TPH DRO samples collected from Evaporation Ponds.

NMAC = New Mexico Administrative Code

NMED = New Mexico Environment Department

NMED Tap Water = NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1, Tap Water Screening Level

NMED TPH = NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table 6-4, TPH Groundwater Screening Levels

mg/L = Milligrams per Liter

pCi/L = PicoCuries per Liter

SVOC = Semivolatile Organic Compound

TPH = Total Petroleum Hydrocarbons

USEPA MCL = United States Environmental Protection Agency Maximum Contaminant Level from "Regional Screening Level (RSL) Summary Table", November 2020

USEPA Tap Water = United States Environmental Protection Agency Tap Water Screening Level from"Regional Screening Level (RSL) Summary Table", November 2020

VOC = Volatile Organic Compound

WQCC = New Mexico Water Quality Control Commission

WQCC GW Domestic = WQCC groundwater standard for domestic exposure, 20.6.2.3103.B NMAC

WQCC GW Human Health = WQCC groundwater standard for human health exposure, 20.6.2.3103.A NMAC

WQCC GW Irrigation = WQCC groundwater standard for irrigation exposure, 20.6.2.3103.C NMAC

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
Cross-Gradient	KWB-13	Apr-17			0.0370 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	KWB-13	Apr-18			0.0567 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	KWB-13	Apr-19			<0.0247		0.00191	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	0.00236 JJ4	<0.000341	<0.000412	<0.00106	<0.000398	
	KWB-13	Jun-20			0.0396 J		<0.000322	<0.000104	0.000205 J	<0.000126	0.000234 J	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	
	MW-136	Apr-18		**<0.0314**	0.0596 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-136	Oct-18		**<0.0314**	0.0676 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-136	Apr-19		**<0.0314**	0.0741 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-136	Oct-19		**0.0731 JB**	0.0254 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-136	Jun-20		**0.326 V3**	**0.0924 J**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-136	Oct-20		**0.0320 J**	**0.0873 JB**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000122 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	
	NP-5	Apr-13			<0.0530		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	NP-5	Apr-15			0.0387 J		0.000804 J	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	NP-5	Apr-17			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-5	Apr-19			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	RA-3156	Apr-17					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	RA-3156	Apr-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	RA-3156	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398	
	RA-3156	Jun-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
Evaporation Ponds	MW-1R	Apr-17				**0.0583 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-1R	Apr-18				**0.0624 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-1R	Apr-19				**0.0756 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-1R	Jun-20				**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-2A	Apr-18		**<0.0314**		**0.132**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-2A	Oct-18		**<0.0314**		**0.175**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-2A	Apr-19		**<0.0314**		**0.153**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500 J3	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-2A	Oct-19		**0.0798 JB**		**0.0585 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-2A	Jun-20		**0.0484 J**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-2A	Oct-20		**<0.0314**		**0.153**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-3	Apr-18		**0.245**		**5.43**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Apr-18	FD	**0.237**		**6.52**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Oct-18		**0.289**		**6.25**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-3	Oct-18	FD	**0.381**		**5.62**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Apr-19		**0.0731 J**		**3.93**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Apr-19	FD	**0.192 B**		**3.77**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Oct-19		**0.659**		**8.93**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	0.000488 JB	
	MW-3	Oct-19	FD	**0.536 Q**		**9.30**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-3	Jun-20		**<1.57**		**7.01**	<0.00805	<0.00260	<0.00235	<0.00315	<0.00343	<0.00253	<0.0250	<0.00435	<0.00695	<0.00435	<0.00475	
	MW-3	Jun-20	FD	**0.691**		**7.98**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-3	Oct-20		**4.06 JB**		**6.84**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	0.000491 J	
	MW-3	Oct-20	FD	**0.491**		**7.08**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-4A	Apr-18		**0.448**		**5.10**	0.000492 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	0.00266 J	<0.000398	
	MW-4A	Oct-18		**0.803**		**5.23**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-4A	Apr-19		**0.669**		**6.82**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-4A	Oct-19		**0.417 B**		**4.88**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	0.000484 JB	
	MW-4A	Jun-20		**0.377**		**4.07**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000195 J	<0.00100	<0.000174	<0.000278	0.000627 J	<0.000190	
	MW-4A	Oct-20		**0.586**		**4.93**	0.000437 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.000244 J	<0.00100	0.000202 J	<0.000278	0.00234 J	<0.000190	
	MW-4B	Apr-13		**0.102**		**0.360**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-4B	Apr-15		**0.119**		**1.31**	<0.000370	<0.000390	0.00183	<0.000260	0.000462 J	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-4B	Apr-17		**0.318**		**1.21**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-4B	Apr-19		**0.181**		**1.13**	<0.000373	<0.000387	0.000393 J	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5A	Apr-18		**1.95**		**6.89**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00147	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5A	Oct-18		**3.29**		**7.51**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-5A	Apr-19		**2.25**		**4.80**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00129	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5A	Oct-19		**1.72**		**4.01**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00143	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5A	Jun-20		**0.959**		**7.01**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000812 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-5A	Oct-20		**1.75**		**6.72**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00142	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-5B	Apr-13		**1.78**		**7.10**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-5B	Apr-15		**1.14**		**11.0**	0.000976 J	<0.000390	<0.000330	<0.000260	<0.000380	0.00148	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-5B	Apr-17		**2.08**		**11.2**	0.000499 J	<0.000387	<0.000331	<0.000260	<0.000384	0.00140	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5B	Apr-19		**1.82**		**11.5**	0.000414 J	<0.000387	<0.000331	<0.000260	<0.000384	0.000981 J	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5C	Apr-13		**0.0652**		**0.220**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-5C	Apr-15		**<0.0310**		**0.580**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	0.000507 J	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-5C	Apr-17		**<0.0314**		**0.500**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000369 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-5C	Apr-19		**0.0423 JB**		**0.442**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-6A	Apr-17		**0.335**		**14.2**	<0.00373	<0.00387	<0.00331	<0.00260	<0.00384	<0.00367	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398	
	MW-6A	Apr-18		**0.406**		**9.27**	<0.000373	<0.000387	<0.000331	<0.000260	0.00117	<0.000367	<0.00100	0.00192	0.00139	0.00360	<0.000398	
	MW-6A	Apr-19		**0.315**		**11.0**	<0.00186	<0.00194	0.00190 J	<0.00130	0.00197 J	<0.00184	<0.00500 J3	0.00291 J	0.00289 J	0.00704 J	<0.00199	
	MW-6A	Jun-20		**0.192**		**4.86**	<0.00161	<0.000520	<0.000471	<0.000630	0.000927 J	<0.000505	<0.00500	0.00171 J	<0.00139	0.00171 J	**0.0217**	
	MW-6B	Mar-13		**<0.0500**		**<0.0530**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-6B	Mar-13	FD	**<0.0500**		**<0.0540**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-6B	Apr-15		**<0.0310**		**0.386**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-6B	Apr-17		**<0.0314**		**0.276**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-6B	Apr-19		**0.0356 J**		**0.427**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Apr-18		**0.378**		**1.26**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00130	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Apr-18	FD	**0.379**		**1.28**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00191	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Oct-18		**0.755**		**1.29**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-7A	Oct-18	FD	**0.649**		**1.13**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00148	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Apr-19		**0.605**		**1.33**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00122	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Apr-19	FD	**0.638**		**1.13**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00161	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Oct-19		**0.325**		**1.09**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00137	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Oct-19	FD	**0.317 Q**		**1.06**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00154	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7A	Jun-20		**0.240**		**0.928**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000858 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-7A	Jun-20	FD	**0.337**		**0.915**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00113	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-7A	Oct-20		**0.351 B**		**0.940**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000957 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-7A	Oct-20	FD	**0.379**		**0.886**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000984 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-7B	Apr-13		**<0.0500**		**<0.0530**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-7B	Apr-15		**<0.0310**		**0.120**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-7B	Apr-17		**<0.0314**		**0.0845 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-7B	Apr-19		**0.0647 JB**		**0.0676 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-10	Apr-18		**0.734**		**2.28**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00141	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-10	Oct-18		**0.915**		**2.03**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199	
	MW-10	Apr-19		**0.816**		**1.85**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00170	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-10	Oct-19		**1.06**		**1.89**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00147	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-10	Jun-20		**0.931**		**1.57**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	0.00136	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-10	Oct-20		**0.640**		**1.76**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00136	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-11A	Apr-18		**<0.0314**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-11A	Oct-18																
	MW-11A	Apr-19		**0.0422 JB**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-11A	Oct-19																
	MW-11A	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-11A	Oct-20																
	MW-11B	Mar-13		**<0.0500**		**<0.0520**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	MW-11B	Apr-15		**<0.0310**		**<0.0250**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400	
	MW-11B	Apr-17		**<0.0314**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-11B	Apr-19		**0.0345 JB**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-15	Apr-17		**0.0940 J**		**0.251**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000373 J	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-15	Apr-18		**0.328**		**0.479**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000836 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-15	Apr-19		**0.136 B**		**0.475**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000549 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-15	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-18A	Apr-18				**0.349**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000589 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18A	Oct-18				**0.329**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000566 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18A	Apr-19				**0.652**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000600 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18A	Oct-19				**0.410**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000793 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18A	Jun-20				**0.408**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000734 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-18A	Oct-20				**0.373 B**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000678 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-18B	Apr-13		**0.0995**		**<0.0520**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	MW-18B	Apr-15		**<0.0310**		**0.280**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	MW-18B	Apr-17		**0.0932 J**		**0.287**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18B	Apr-19		**0.105 B**		**0.230**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Apr-18		**2.50**		**4.86**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00458	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Apr-18	FD	**3.30**		**5.22**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00580	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Oct-18		**3.61**		**5.13**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	0.00351 J	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-22A	Oct-18	FD	**4.46**		**4.89**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00446	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Apr-19		**2.75**		**4.55**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00438	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Apr-19	FD	**3.22**		**4.41**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00409	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Oct-19		**0.599 B**		**1.54**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000923 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Oct-19	FD	**0.612 B**		**1.54**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00103	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22A	Jun-20		**2.73**		**2.91**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00242	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-22A	Jun-20	FD	**2.10**		**2.72**	0.000411 J	<0.000104 J4	<0.0000941	<0.000126	<0.000137	0.00254	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-22A	Oct-20		**1.68**		**3.45**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00286	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-22A	Oct-20	FD	**2.13**		**3.13**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00273	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-22B	Apr-13		**1.99**		**3.00**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	0.00650	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	MW-22B	Apr-15		**2.34**		**5.60**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	0.00634	<0.00100	<0.000340	<0.000780 UJ	<0.00110	<0.000400
	MW-22B	Apr-17		**1.76**		**5.25**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00564	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-22B	Apr-19		**2.58**		**4.77**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00582	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-70	Apr-18		**1.97**		**0.749**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-70	Oct-18		**2.34**		**0.666**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-70	Apr-19		**1.92**		**0.688**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-70	Oct-19		**1.50**		**0.861**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-70	Jun-20		**1.29**		**0.833**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000119 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-70	Oct-20		**2.28**		**0.805**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000124 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-72	Apr-17		**0.118**		**1.03**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-72	Apr-18		**0.0713 J**		**0.555**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-72	Apr-19		**0.0396 J**		**0.497**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	MW-72	Jun-20		**0.0544 J**		**0.303**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-73	Apr-17		**0.367**		**3.68**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00120	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-73	Apr-18		**0.575**		**2.85**	0.000735 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-73	Apr-19		**0.0435 J**		**2.56**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000992 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-73	Jun-20		**0.408**		**2.86**	0.000589 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.00105	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-74	Apr-18		**1.18**		**14.1**	0.000852 J	<0.000387	<0.000331	<0.000260	<0.000384	0.000608 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-74	Oct-18		**0.889**		**35.3**	0.000732 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-74	Apr-19		**0.674**		**39.4**	0.000588 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-74	Oct-19		**1.66**		**23.5**	0.00119	<0.000387	<0.000331	<0.000260	<0.000384	0.000725 J	<0.00100	<0.000341	<0.000412	<0.00106	0.000473 JB
	MW-74	Jun-20		**0.490**		**21.9**	0.000772 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.000294 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-74	Oct-20		**1.64**		**15.6**	0.00157	0.000124 J	<0.0000941	<0.000126	<0.000137	0.000761 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-75	Apr-18		**1.41**		**9.88**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00467	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-75	Oct-18		**3.31**		**14.4**	<0.000373	0.000709 J	<0.000331	<0.000260	<0.000384	0.00276	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-75	Apr-19		**1.64**		**12.0**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00644	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-75	Oct-19		**3.01**		**15.4**	<0.000373	0.000795 J	<0.000331	<0.000260	<0.000384	0.00232	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-75	Jun-20		**2.44 J**		**12.2**	<0.00805	<0.00260	<0.00235	<0.00315	<0.00343	0.00263 J	<0.0250	<0.00435	<0.00695	<0.00435	<0.00475
	MW-75	Oct-20		**3.45**		**15.1**	<0.00805	<0.00260	<0.00235	<0.00315	<0.00343	0.00583 J	<0.0250	<0.00435	<0.00695	<0.00435	<0.00475
	MW-76	Apr-18		**1.52**		**15.1**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0127	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-76	Oct-18		**1.69**		**29.2**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	0.0119	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-76	Apr-19		**1.67**		**25.3**	<0.000373	0.000418 J	<0.000331	<0.000260	<0.000384	0.0115	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-76	Oct-19		**1.70**		**30.1**	0.000510 J	0.000584 J	<0.000331	<0.000260	<0.000384	0.0123	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-76	Jun-20		**1.89**		**20.8**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	0.0111	<0.00100	<0.000174	<0.000278	0.000628 J	<0.000190
	MW-76	Oct-20		**1.11**		**16.4**	0.000376 J	0.000320 J	<0.0000941	<0.000126	<0.000137	0.00743	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-77	Apr-17		**1.11**		**57.5**	0.00384 J	<0.00387	<0.00331	<0.00260	<0.00384	0.00452 J	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398
	MW-77	Apr-18		**1.15**		**54.4**	<0.00373	<0.00387	<0.00331	<0.00260	<0.00384	<0.00367	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398
	MW-77	Apr-19		**1.04**		**72.5**	<0.00373	<0.00387	<0.00331	<0.00260	<0.00384	0.00392 J	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398
	MW-77	Jun-20		**2.88 J**		**53.1**	<0.00805	<0.00260	<0.00235	<0.00315	<0.00343	<0.00253	<0.0250	<0.00435	<0.00695	<0.00435	<0.00475
	MW-78	Apr-17		**<0.314**		**59.1**	<0.00373	<0.00387	<0.00331	<0.00260	<0.00384	<0.00367	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398
	MW-78	Apr-18		**<0.314**		**26.4**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-78	Apr-19		**<0.314**		**28.6**	<0.00373	<0.00387	<0.00331	<0.00260	<0.00384	<0.00367	<0.0100	<0.00341	<0.00412	<0.0106	<0.00398
	MW-78	Jun-20		**<1.57**		**38.5**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-79	Apr-18		**0.0414 J**		**0.389**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-79	Oct-18		**0.0571 J**		**0.533**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-79	Apr-19		**<0.0314**		**0.584**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-79	Oct-19		**0.0662 JB**		**0.200**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-79	Jun-20		**0.0534 J**		**0.0762 J**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-79	Oct-20		**0.0582 J**		**0.333**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-80	Apr-17		**<0.0314**		**0.680**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-80	Apr-18		**<0.0314**		**0.150**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-80	Apr-19		**<0.0314**		**0.210**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-80	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-81	Apr-17		**<0.0314**		**4.84**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-81	Apr-18		**<0.0314**		**0.922**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-81	Apr-19		**<0.0314**		**1.42**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-81	Jun-20		**0.0978 J**		**0.269**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-82	Apr-17		**0.660**		**6.40**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-82	Apr-18		**0.432**		**3.03**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-82	Apr-19		**0.0619 J**		**5.49**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-82	Jun-20		**0.689**		**2.58**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-83	Apr-18		**1.18**		**7.92**	0.000650 J	<0.000387	0.00166	<0.000260	<0.000384	0.000465 J	<0.00100	<0.000341	<0.000412	0.00258 J	<0.000398
	MW-83	Oct-18		**0.597**		**19.5**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-83	Apr-19		**0.339**		**35.2**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500 J3	<0.00170	<0.00206	<0.00530	<0.00199
	MW-83	Oct-19		**0.996 B**		**19.1**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-83	Jun-20		**0.843**		**8.93**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-83	Oct-20		**1.17**		**10.2**	<0.000322	<0.000104	0.000236 J	<0.000126	<0.000137	0.000649 J	<0.00100	<0.000174	<0.000278	0.00127 J	<0.000190
	MW-84	Apr-18		**0.765**		**22.3**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00124	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-84	Oct-18		**1.21**		**41.0**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00128	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-84	Apr-19		**0.453**		**48.1**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500 J3	<0.00170	<0.00206	<0.00530	<0.00199
	MW-84	Oct-19		**1.45**		**34.8**	<0.00187	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	0.00344 J	<0.00530	<0.00199
	MW-84	Jun-20		**1.45**		**58.9**	<0.00161	<0.000520	<0.000471	<0.000630	<0.000685	0.00112 J	<0.00500	<0.000870	<0.00139	<0.000870	<0.000950
	MW-84	Oct-20		**<3.14**		**59.2**	<0.00322	<0.00104	<0.000941	<0.00126	<0.00137	0.00104 J	<0.0100	<0.00174	<0.00278	<0.00174	<0.00190
	MW-86	Jun-20		**1.77 J**		**93.9**	0.0200	0.00605 J	**0.0242**	<0.00252	0.0199 J	<0.00202	<0.0200	0.0216	0.0345	0.0483 J	<0.00380
	MW-86	Oct-20		**<6.28**		**80.2**	0.0223	0.00604 J	**0.0313**	<0.00252	0.0228	<0.00202	<0.0200	0.0288	0.0435	0.0583 J	<0.00380

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-87	Apr-18		**<0.0314**		**0.288**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000710 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-87	Oct-18		**0.0326 J**		**0.222**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000736 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-87	Apr-19		**0.0422 JB**		**0.364**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000622 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-87	Oct-19		**0.0950 JB**		**0.247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00108	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-87	Jun-20		**<0.0314**		**0.260**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000725 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-87	Oct-20		**0.0469 JB**		**0.270 B**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000777 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-88	Apr-18		**0.0540 J**		**0.508**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-88	Oct-18		**0.0479 J**		**0.415**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-88	Apr-19		**<0.0314**		**0.359**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-88	Oct-19		**0.120 B**		**0.325**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-88	Jun-20		**0.0434 J**		**0.317**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-88	Oct-20		**0.0806 JB**		**0.405**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-120	Apr-18		**0.124**		**0.540**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-120	Oct-18		**0.133**		**0.664**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-120	Apr-19		**0.102**		**0.554**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500 J3	<0.00170	<0.00206	<0.00530	<0.00199
	MW-120	Oct-19		**0.611 B**		**0.463**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-120	Jun-20		**0.0458 J**		**0.262**	<0.00161	<0.000520	<0.000471	<0.000630	<0.000685	<0.000505	<0.00500	<0.000870	<0.00139	<0.000870	0.00169 J
	MW-120	Oct-20		**<0.0314**		**0.402**	<0.00161	<0.000520	<0.000471	<0.000630	<0.000685	<0.000505	<0.00500	<0.000870	<0.00139	<0.000870	<0.000950
	MW-121	Apr-18		**<0.0314**		**0.395**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-121	Oct-18		**<0.0314**		**0.473**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-121	Apr-19		**<0.0314**		**0.418**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	MW-121	Oct-19		**0.0537 JB**		**0.310**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	0.000498 JB
	MW-121	Jun-20		**<0.0314**		**0.204**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-121	Oct-20		**<0.0314**		**0.268**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-122	Apr-18		**<0.0314**		**0.211**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-122	Oct-18		**<0.0314**		**0.188**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-122	Apr-19		**<0.0314**		**0.338**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500 J3	<0.00170	<0.00206	<0.00530	<0.00199
	MW-122	Oct-19		**0.233 JB**		**0.111**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-122	Jun-20		**<1.57**		**0.0398 J**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-122	Oct-20		**<1.57**		**0.122**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-123	Apr-18		**1.35**		**3.09**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00122	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-123	Oct-18		**2.04**		**2.51**	<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	<0.00184	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-123	Apr-19		**1.63**		**2.63**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00163	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-123	Oct-19		**1.58**		**2.36**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00133	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-123	Jun-20		**2.03**		**2.01**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	0.00149	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-123	Oct-20		**1.30**		**2.29**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00174	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-124	Apr-18		**<0.0314**		**0.0328 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-124	Oct-18		**<0.0314**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-124	Apr-19		**0.0422 JB**		**0.0404 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-124	Oct-19		**<0.0314** Q		**0.0611 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-124	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-124	Oct-20		**<0.0314**		**0.0406 JB**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-1R	Apr-18		**<0.0314**		**0.187**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-1R	Oct-18		**<0.0314**		**0.141**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-1R	Apr-19		**<0.0314**		**0.143**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-1R	Oct-19		**0.0869 JB**		**0.181**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-1R	Jun-20		**<0.0314**		**0.110**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-1R	Oct-20		**0.0461 JB**		**0.117**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-2A	Apr-18		**<0.0314**		**0.0703 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-2A	Oct-18		**<0.0314**		**0.0442 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-2A	Apr-19		**<0.0314**		**0.0563 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-2A	Oct-19		**0.0765 JB**		**0.0255 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-2A	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-2A	Oct-20		**0.0374 JB**		**0.0650 J**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-3	Apr-18		**<0.0314**		**0.0510 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-3	Oct-18		**<0.0314**		**0.0262 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-3	Apr-19		**<0.0314**		**0.0267 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-3	Oct-19		**0.0771 JB**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-3	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-3	Oct-20		**0.0381 JB**		**0.0499 J**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-4	Apr-18		**<0.0314**		**0.0255 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-4	Oct-18		**<0.0314**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-4	Apr-19		**<0.0314**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-4	Oct-19		**0.0736 JB**		**<0.0247**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-4	Jun-20		**<0.0314**		**<0.0247**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-4	Oct-20		**0.0326 JB**		**0.0404 J**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-5	Apr-18		**0.194**		**0.249**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-5	Oct-18		**0.312**		**0.259**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-5	Apr-19		**0.179 B**		**0.233**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-5	Oct-19		**0.912**		**0.954**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-5	Jun-20		**1.09**		**0.773**	<0.000322	<0.000104 J4	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-5	Oct-20		**0.724**		**0.917**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-6	Apr-18		**0.218**		**0.585**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-6	Oct-18		**0.293**		**0.651**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-6	Apr-19		**0.136**		**0.600**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-6	Oct-19		**0.145 B**		**0.390**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-6	Jun-20		**0.134**		**0.517**	<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-6	Oct-20		**0.159**		**0.622**	<0.000322	<0.000104	<0.0000941	0.000170 JB	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-7AR	Apr-18		**0.808**		**3.30**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00124	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-7AR	Oct-18		**1.32**		**3.89**	0.00103	<0.000387	<0.000331	<0.000260	<0.000384	0.00139	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-7AR	Apr-19		**0.360**		**4.00**	0.000498 J	<0.000387	<0.000331	<0.000260	<0.000384	0.000632 J	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-7AR	Oct-19		**1.14**		**3.46**	0.000670 J	<0.000387	<0.000331	<0.000260	<0.000384	0.00190	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-7AR	Jun-20		**0.637**		**3.21**	0.000452 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.000944 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-7AR	Oct-20		**0.878**		**3.45**	0.000917 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.00157	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-7B	Mar-13		**<0.0500**		**<0.0520**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	OCD-7B	Apr-15		**<0.0310**		**0.120**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	OCD-7B	Apr-17		**<0.0314**		**0.0746 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-7B	Apr-19		**<0.0314**		**0.0638 J**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8A	Apr-18		**0.861**		**3.15**	0.000562 J	<0.000387	<0.000331	<0.000260	<0.000384	0.00380	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8A	Oct-18		**1.39**		**2.95**	0.00124	<0.000387	<0.000331	<0.000260	<0.000384	0.00463	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8A	Apr-19		**1.36**		**3.75**	0.000406 J	<0.000387	<0.000331	<0.000260	<0.000384	0.00400	<0.00100 J3	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8A	Oct-19		**0.128 B**		**0.648**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000471 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8A	Jun-20		**0.419**		**2.19**	0.000366 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.00275	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-8A	Oct-20		**0.644**		**2.17**	0.000474 J	<0.000104	<0.0000941	<0.000126	<0.000137	0.00342	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	OCD-8B	Apr-13		**0.298**		**0.890**	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	OCD-8B	Apr-15		**<0.0310**		**0.840**	<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	0.00155	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	OCD-8B	Apr-17		**<0.0314**		**0.585**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000919 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	OCD-8B	Apr-19		**0.0648 JB**		**0.612**	<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000876 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
Field East of Refinery	KWB-1A	Apr-18			**0.0900 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-1A	Oct-18			**0.0970 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-1A	Apr-19			0.0541 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-1A	Oct-19			0.0614 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-1A	Jun-20			**0.123**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-1A	Oct-20			**0.0960 JB**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
Field East of Refinery	KWB-1C	Apr-13			<0.0440		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	KWB-1C	Apr-15			**0.113**		<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	KWB-1C	Apr-17			**0.140**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-1C	Apr-19			**0.0921 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-7	Oct-17			**1.69**		0.0258	<0.000387	**0.0363**	<0.000260	0.0156	0.00510	0.00350 J	0.00112	<0.000412	0.0143	<0.000398
	KWB-7	Oct-18			**0.444**		0.00186	<0.000387	**0.0247**	<0.000260	0.00178	0.00928	<0.00100	<0.000341	<0.000412	0.00156 J	<0.000398
	KWB-7	Jun-20			**7.29**		**0.0876**	<0.000104	**0.0545**	<0.000126	0.00936	0.00932	0.00822	0.00226	0.000536 J	0.0413	<0.000190
	KWB-7	Oct-20			**1.05**		0.00287	<0.000104	**0.00789**	<0.000126	0.00262	0.00365	<0.00100	0.000402 J	<0.000278	0.00289 J	<0.000190
	KWB-8	Oct-16			**3.02**		**0.170 J**	**<0.0774**	**11.5**	<0.0520	**0.828**	<0.0734	**<0.200** J4	0.150 J	**1.48**	**1.16**	**<0.0796**
	KWB-8	Apr-17			**3.41**		**0.380**	**0.0863 J**	**5.62**	<0.0260	**1.24**	**0.129**	**0.141 J**	0.145	0.747	**2.07**	**<0.0398**
	KWB-8	Oct-17			**3.30**		**0.114**	0.0225	**12.5**	<0.000260	0.617	**0.134** V3	**0.0519**	0.0133	0.336	**0.795**	<0.000398
	KWB-8	Oct-20			**6.80**		**0.833**	**0.191 J**	**17.8**	<0.0252	**2.89**	0.0230 J	**0.539 J**	0.139 J	**1.08**	**4.19**	**<0.0380**
	KWB-10R	Apr-17			**4.01**		**0.360**	**0.0907**	**4.95**	<0.0130	0.505	**3.65**	**0.156 J**	**0.198**	0.0605	**0.914**	**<0.0199**
	KWB-10R	Oct-17			**5.18**		**0.302**	**0.0759**	**7.06**	<0.000260	0.530	**5.41**	**0.152**	0.112 J	0.0588	**0.767**	<0.000398
	KWB-10R	Apr-18			**3.23**		**0.214 J**	**<0.0968**	**3.06**	<0.0650	0.354	**2.74**	**<0.250**	0.0922 J	<0.103	0.549 J	**<0.0995**
	KWB-10R	Oct-18			**3.35**		**0.215 J**	**<0.0968**	**3.81**	<0.0650	0.238 J	**4.12**	**<0.250**	<0.0852	<0.103	<0.265	**<0.0995**
	KWB-11A	Apr-18		**0.287**	**0.398**		0.00290	<0.000387	0.000985 J	<0.000260	<0.000384	0.00341	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11A	Oct-18		**0.369**	**1.20**		0.00500	<0.000387	0.00333	<0.000260	<0.000384	0.00290	0.00165 J	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11A	Apr-19		**0.149**	**0.787**		0.000467 J	<0.000387	0.000898 J	<0.000260	<0.000384	0.00371	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11A	Jun-20		**0.444**	**2.28**		0.0486	<0.000104	0.000492 J	<0.000126	0.000576 J	0.00359	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-11A	Oct-20		**0.0992 J**	**0.376**		0.00151	<0.000104	0.00234	<0.000126	<0.000137	0.00307	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-11B	Apr-18		**<0.0314**	0.0406 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000498 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11B	Oct-18		**<0.0314**	0.0382 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00125	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11B	Apr-19		**<0.0314**	0.0418 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000774 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11B	Oct-19		**0.0747 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00103	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-11B	Jun-20		**<0.0314**	0.0514 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00140	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-11B	Oct-20		**<0.0314**	**0.0956 J**		<0.000322	<0.000104	0.00192	<0.000126	<0.000137	0.00156	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-12A	Oct-18		**<0.0314**	**0.132**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12A	Oct-19		**0.0748 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12A	Jun-20		**<0.0314**	0.0477 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	KWB-12A	Oct-20		**0.0364 J**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	KWB-12B	Apr-18		**<0.0314**	0.0354 JB		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Apr-18	FD	**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Oct-18		**<0.0314**	0.0425 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Oct-18	FD	**<0.0314**	0.0643 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Apr-19	FD	**0.0499 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Oct-19		**0.0739 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Oct-19	FD	**0.0768 JB**	**0.133**		0.000508 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-12B	Jun-20		**<0.0314**	0.0305 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	KWB-12B	Jun-20	FD	**0.0359 JB**	0.0415 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	KWB-12B	Oct-20		**0.0358 J**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	KWB-12B	Oct-20	FD	**<0.0314**	0.0684 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	KWB-P4	Apr-13			<0.0520		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	KWB-P4	Apr-15			0.0820 J		<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	KWB-P4	Apr-17			0.0526 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	KWB-P4	Apr-19			0.0361 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-57	Apr-18		**<0.0314**	**0.103 B**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-57	Oct-18		**<0.0314**	0.0417 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-57	Apr-19		**<0.0314**	**0.139 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-57	Oct-19		**0.0894 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-57	Jun-20		**<0.0314**	0.0661 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-57	Oct-20		**0.0579 J**	0.0475 JB		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-58	Oct-17			**9.77**		**0.166**	0.00130	**4.08**	<0.000260	0.0965	0.0987	**0.0469**	0.00179	0.0101	0.222	<0.000398
	MW-58	Apr-18			**5.73**		**0.574**	<0.0194	**4.12**	<0.0130	**0.946**	0.0303 J	**0.267**	<0.0170	<0.0206	0.268	**<0.0199**
	MW-58	Oct-18			**4.86**		0.0235 J	<0.0194	**7.11**	<0.0130	0.0351 J	0.0624	**<0.0500**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-58	Oct-19			**12.1**		**0.272**	0.0123	**3.78**	<0.00260	0.634	<0.00367	**0.0917**	0.0119	0.0141 J4	0.407	<0.00398
	MW-111	Apr-18		**1.69**	**1.52**		<0.00932	<0.00968	**0.0216 J**	<0.00650	<0.00960	**1.25**	<0.0250	<0.00852	<0.0103	<0.0265	**<0.00995**
	MW-111	Oct-18		**1.36**	**2.63**		<0.00932	<0.00968	**0.0268**	<0.00650	<0.00960	**1.47**	<0.0250	<0.00852	<0.0103	<0.0265	**<0.00995**
	MW-111	Apr-19		**1.88**	**1.54**		0.00243	<0.000387	**0.115**	<0.000260	0.00258	**1.46**	0.00408 J	<0.000341	0.000523 J	0.00523	<0.000398
	MW-111	Oct-19		**1.37**	**1.80**		0.00437	0.000852 J	**0.167**	<0.000260	0.0164	**1.23**	0.00372 J	0.000929 J	<0.0103	0.0109	<0.000398
	MW-111	Jun-20		**3.86**	**1.77**		0.0135 J	0.00436 J	**0.439**	<0.00315	0.0408	**1.30**	<0.0250	<0.00435	<0.00695	0.0148 J	<0.00475
	MW-112	Nov-14		**28.0**	**2.20**		**0.350**	**0.0900**	**8.50**	<0.00650	**0.970**	**1.00**	**0.200**	**0.600**	0.730	**2.00**	**<0.0100**
	MW-113	Apr-18		**0.683**	**0.142 B**		0.00240	<0.000387	**0.00908**	<0.000260	0.00604	0.0114	<0.00100	<0.000341	<0.000412	0.00849	<0.000398
	MW-113	Apr-18	FD	**0.756**	**0.174**		0.00274	<0.000387	**0.00996**	<0.000260	0.00667	0.0120	<0.00100	<0.000341	<0.000412	0.00901	<0.000398
	MW-113	Oct-18		**0.285**	**0.100 J**		0.00393	<0.000387	0.00182	<0.000260	0.00885	0.0128	<0.00100	<0.000341	<0.000412	0.00867	<0.000398
	MW-113	Oct-18	FD	**0.259**	**0.215**		0.00388	<0.000387	0.00130	<0.000260	0.00992	0.0100	0.00117 J	<0.000341	<0.000412	0.00939	<0.000398
	MW-113	Apr-19		**1.91**	0.0450 J		0.00468	<0.000387	**0.0154**	<0.000260	0.00703	0.0112	0.00108 J	<0.000341	<0.000412	0.0113	<0.000398
	MW-113	Apr-19	FD	**1.83**	**0.113**		0.00523	0.00355	**0.0139**	<0.000260	0.00809	0.00973	0.00110 J	<0.000341	<0.000412	0.0128	<0.000398
	MW-113	Oct-19		**4.54**	**2.35**		**0.223**	<0.000387	**0.547 J4**	<0.000260	0.248	0.00823	**0.128**	0.00194	0.00609	0.309	<0.000398
	MW-113	Oct-19	FD	**4.37**	**2.53**		**0.240**	0.00170	**0.546**	<0.000260	0.270	0.00809	**0.0986**	0.00233	0.00657	0.286	<0.000398
	MW-113	Jun-20		**1.30**	**0.226**		0.0357	<0.000520	**0.0306**	<0.000630	0.00355 J	0.0129	<0.00500	<0.000870	<0.00139	0.0363	<0.000950
	MW-113	Jun-20	FD	**0.798** V3	**0.158**		0.0278	0.000589 J	**0.0248**	<0.000126	0.00448	0.0104	0.00195 J	0.000359 J	0.000490 J	0.0474	<0.000190
	MW-113	Oct-20		**3.18**	**0.784**		**0.102**	0.00118 J	**0.368**	<0.000630	0.129	0.0117	0.0101 J	<0.000870	0.00446 J	0.154	<0.000950
	MW-113	Oct-20	FD	**3.30**	**0.814**		**0.114**	<0.000104	**0.428**	<0.000126	0.137	0.0118	0.0104	0.000755 J	0.00403	0.166	<0.000190
	MW-125	Apr-18		**<0.0314**	0.0475 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-125	Oct-18		**<0.0314**	**0.211**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-125	Apr-19		**<0.0314**	0.0670 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-125	Oct-19		**0.0827 JB**	**0.101**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412 J4	<0.00106	<0.000398
	MW-125	Jun-20		**<0.0314**	0.0700 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-125	Oct-20		**0.0382 J**	**0.0942 JB**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-126A	Apr-18		**0.0634 J**	**0.390**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126A	Oct-18		**0.182**	**0.723**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126A	Apr-19		**0.124 B**	**0.370**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126A	Oct-19		**0.903**	**0.583**		<0.000373	0.00162	**0.170**	<0.000260	0.0114	<0.000367	0.00221 J	<0.000341	0.00168	0.00569	<0.000398
	MW-126A	Jun-20		**0.0319 J**	**0.461**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000248 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-126A	Oct-20		**0.0669 J**	**0.451 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000502 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-126B	Apr-18		**<0.0314**	**0.244**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126B	Oct-18		**<0.0314**	**0.298**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126B	Apr-19		**0.0325 JB**	**0.232**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126B	Oct-19		**0.0766 JB**	**0.243**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-126B	Jun-20		**<0.0314**	**0.461**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-126B	Oct-20		**0.0343 J**	**0.312 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000114 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-127	Oct-17		**1.68**	**1.41**		0.0327	0.00452	**0.462**	<0.000260	0.0937	**0.885**	0.00901	0.00373	0.0396	0.0482	<0.000398
	MW-127	Apr-18		**5.15**	**1.06**		0.0375	<0.00774	**1.18**	<0.00520	0.121	**0.623**	<0.0200	<0.00682	0.0424	0.0654	**<0.00796**
	MW-127	Oct-18		**3.13**	**1.30**		0.0272	<0.00774	**1.15**	<0.00520	0.0797	**0.774**	<0.0200	<0.00682	0.0397	0.0458 J	**<0.00796**
	MW-127	Apr-19		**5.94**	**1.11**		0.0399	<0.00774	**1.65**	<0.00520	0.138	**0.628**	<0.0200 J4	<0.00682	0.0261	0.0933	**<0.00796**
	MW-128	Oct-17		**1.14**	**2.37**		0.00233	<0.000387	**0.0701**	<0.000260	0.00128	**0.785**	0.00142 J	<0.000341	0.000781 J	0.00336	<0.000398
	MW-128	Apr-18		**0.932**	**1.58**		<0.00746	<0.00774	**0.122**	<0.00520	<0.00768	**0.961**	**0.0422 J**	<0.00682	<0.00824	<0.0212	**<0.00796**
	MW-128	Oct-18		**2.76**	**2.04**		<0.00746	<0.00774	**0.729**	<0.00520	0.0247	**0.963**	<0.0200	<0.00682	<0.00824	<0.0212	**<0.00796**
	MW-128	Apr-19		**3.13**	**1.81**		<0.00746	<0.00774	**0.643**	<0.00520	0.0199 J	**0.765**	<0.0200	<0.00682	<0.00824	<0.0212	**<0.00796**
	MW-129	Apr-16		**2.70**	**1.68**		0.00382	0.000880 J	**<0.0166**	<0.000260	<0.0192	**4.59**	0.00534	0.000796 J	<0.0390	0.00278 J	<0.000398
	MW-129	Oct-16		**2.17**	**1.68**		0.00143	0.000479 J	**0.00791**	<0.000260	0.000985 J	**4.73**	0.00186 JJ4	<0.000341	0.000920 J	0.00124 J	<0.000398
	MW-129	Apr-17		**1.79**	**2.13**		0.00101	<0.000387	0.00299	<0.000260	<0.000384	**4.34**	0.00247 J	<0.000341	0.000543 J	<0.00106	<0.000398
	MW-129	Apr-18		**4.33**	**1.40**		0.000452 J	<0.000387	**0.00731**	<0.000260	0.00130	**5.40**	0.00124 J	<0.000341	0.000816 J	0.00125 J	<0.000398

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**															
Field East of Refinery	MW-130	Apr-18		**0.0327 J**	**0.756 B**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00134	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-130	Oct-18		**<0.0314**	**0.945**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000976 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-130	Apr-19		**0.0395 JB**	**0.648**		<0.000373	<0.000387	0.000351 J	<0.000260	<0.000384	0.00131	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-130	Oct-19		**0.0828 JB**	**0.774**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00295	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-130	Jun-20		**<0.0314**	**0.609**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00424	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-130	Oct-20		**<0.0314**	**0.676**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00328	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-131	Apr-17		**6.81**	**1.77**		0.0137	0.00348	**3.09**	<0.000260	0.0532	**3.99**	0.0295	0.0406	0.153	0.114	<0.000398
	MW-131	Oct-17		**4.95**	**1.58**		**<0.0932**	0.00174	**1.39**	<0.000260	<0.0960	**5.25**	**0.0303**	<0.0852	0.0627	<0.265	<0.000398
	MW-131	Oct-19		**8.71**	**1.46**		**0.167**	0.0432	**0.796**	<0.000260	0.0255	**4.95**	**0.0314**	**0.312**	0.232	**0.993**	<0.000398
	MW-131	Jun-20		**8.68**	**1.83**		**0.110**	0.0408 J	**0.907**	<0.00630	0.0171 J	**2.91**	**<0.0500**	**0.242**	0.150	**0.786**	**<0.00950**
	MW-133	Nov-14		**9.40**	**2.80**		**0.280**	0.0530 J	**0.620**	<0.0260	0.300	**5.60**	**<0.100**	0.0380 J	0.100 J	0.220 J	**<0.0400**
	MW-133	Apr-15		**11.3**	**3.10**		**0.138**	<0.0390	**0.788**	<0.0260	0.199	**6.67**	**<0.100**	<0.0340	<0.0780	<0.110	**<0.0400**
	MW-134	Apr-18		**<0.0314**	0.0533 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Apr-18	FD	**<0.0314**	0.0427 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Oct-18		**<0.0314**	0.0547 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Oct-18	FD	**<0.0314**	**0.0883 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Apr-19		**0.0450 JB**	**0.0911 J**		0.000846 J	<0.000387	0.000947 J	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Apr-19	FD	**<0.0314**	**0.0927 J**		0.000471 J	<0.000387	0.00279	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Oct-19		**0.0965 JB**	**0.0947 J**		0.000835 J	<0.000387	0.000392 J	<0.000260	0.000442 J	<0.000367	0.00326 J	<0.000341	<0.000412	<0.00106	<0.000398
	MW-134	Oct-19	FD	**0.0939 JB**	**0.277**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	0.00248 J	<0.000341	<0.000412	0.00106 J	<0.000398
	MW-134	Jun-20		**0.0330 JB**	0.0820 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-134	Jun-20	FD	**0.0332 J**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-134	Oct-20		**<0.0314**	**0.107 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-134	Oct-20	FD	**<0.0314**	**0.129**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-135	Apr-18		**<0.0314**	0.0408 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-135	Oct-18		**<0.0314**	0.0342 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-135	Apr-19		**0.0317 JB**	0.0521 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-135	Oct-19		**0.0796 JB**	0.0543 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-135	Jun-20		**0.0425 J**	0.0380 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-135	Oct-20		**<0.0314**	0.0723 JB		<0.000322	<0.000104	0.00250	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-145	Oct-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000496 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-145	Oct-20	FD				<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000507 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-146	Oct-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-147	Oct-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-148	Oct-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000183 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RA-4196	Apr-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00693	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4196	Oct-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00753	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4196	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00594	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4196	Oct-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00709	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4196	Jun-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00948	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RA-4196	Oct-20					<0.000322	<0.000104	<0.0000941 Q	<0.000126	<0.000137	0.00798	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RA-4798	Apr-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4798	Oct-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00788	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4798	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4798	Oct-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00943	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-4798	Jun-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.0170	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RA-4798	Oct-20					<0.000322	<0.000104	<0.0000941 Q	<0.000126	<0.000137	0.00654	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RW-12R	Apr-17			**1.61**		0.0338	<0.00194	**0.335**	<0.00130	0.00823	0.00210 J	0.00877 J	0.00177 J	0.00354 J	0.0257	<0.00199
	RW-12R	Apr-18			**0.514 B**		0.00448	<0.000387	**0.0358**	<0.000260	0.00269	0.00315	0.00130 J	<0.000341	0.00157	0.00648	<0.000398
	RW-12R	Apr-19			**0.822**		0.0102	<0.000387	**0.0764**	<0.000260	0.00142	0.00341	<0.00100	0.000476 J	0.000866 J	0.00643	<0.000398
	RW-12R	Jun-20			**0.633**		0.00494	<0.000104	**0.154**	<0.000126	0.00223	0.00225	<0.00100	0.000522 J	0.000997 J	0.00605	<0.000190
	RW-13R	Apr-16			**0.808**		0.0443	0.00539	**0.878**	<0.000260	0.0691	0.0779	0.0148	0.0139	0.0175	0.108	<0.000398
	RW-13R	Apr-18			**0.526 B**		0.0443	0.000443 J	**0.0770**	<0.000260	0.00855	0.0559	0.00114 J	0.00159	0.00322	0.0299	<0.000398
	RW-18A	Apr-17					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-18A	Apr-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-18A	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	RW-18A	Jun-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	RW-20	Apr-15			**2.10**		**0.539**	**0.113**	**1.87**	<0.00260	**0.973**	**0.209**	**0.183**	0.0590	0.211	**1.35**	<0.00400
	RW-22	Apr-15			**5.40**		**0.575**	**0.0853**	**4.07**	<0.00260	**1.09**	**0.178**	**0.164**	0.0952	0.216	**0.945**	<0.00400
NCL	MW-18	Apr-17			**0.960**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18	Apr-18			**0.672**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18	Apr-19			**0.842**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-18	Jun-20			**0.812**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000340 J	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-45	Apr-18			**0.502**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00506	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-45	Oct-18			**1.30**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00766	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-45	Apr-19			**0.975**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0108	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-45	Oct-19			**0.983**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00874	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-45	Jun-20			**0.739**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00634	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-45	Oct-20			**0.728**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.0124	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-53	Apr-16			**0.316**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000780	<0.00106	<0.000398
	MW-53	Apr-17			**0.258**		<0.000373	<0.000387	<0.000331	0.000391 J	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-53	Apr-18			**0.158**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-53	Apr-19			**0.229**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-53R	Oct-20			**0.206**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-54A	Apr-18			**2.51**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-54A	Oct-18			**2.18**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-54A	Apr-19			**3.63**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-54A	Oct-19			**2.54**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-54A	Jun-20			**1.97**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-54A	Oct-20			**2.82**		<0.000322	<0.000104	0.000171 J	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-54B	Apr-13		**<0.0500**	**0.630**		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500
	MW-54B	Apr-15		**<0.0310**	**2.47**		<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	<0.000370	<0.00100	<0.000340	<0.000780	<0.00110	<0.000400
	MW-54B	Apr-17		**<0.0314**	**0.881**		<0.000373	<0.000387	<0.000331	0.000616 J	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-54B	Apr-19		**<0.0314**	**1.84**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-55	Apr-18		**0.0479 J**	**0.518**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0302	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-55	Oct-18		**0.0888 J**	**1.09**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0604	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-55	Apr-19		**0.0547 J**	**1.18**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0672	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-55	Oct-19		**0.142 B**	**1.05**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.106**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-55	Jun-20		**0.140**	**0.950**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	**0.228**	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-55	Oct-20		**0.635**	**1.34**		<0.00322	<0.00104	<0.000941	<0.00126	<0.00137	**0.299**	<0.0100	<0.00174	<0.00278	<0.00174	<0.00190
	MW-56	Apr-17			**1.15**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0222	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-56	Apr-18			**0.287**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00328	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-56	Apr-19			**0.583**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00208	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-56	Jun-20			**0.110**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000339 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-108	Apr-18			**8.78**		0.0462	<0.00968	**0.265**	<0.00650	<0.00960	<0.00918	<0.0250	<0.00852	<0.0103	0.0646 J	**<0.00995**
	MW-108	Oct-18			**4.41**		**0.0637**	0.00773	**0.404**	<0.00130	0.00532	<0.00184	<0.00500 J4	0.00363 J	0.00660	0.0888	<0.00199
	MW-108	Apr-19			**5.86**		0.0435	<0.00194	**0.328**	<0.00130	0.00347 J	<0.00184	<0.00500	0.00282 J	0.00475 J	0.0691	<0.00199
	MW-108	Oct-19			**3.36**		0.0279	0.00359 J	**0.301**	<0.00130	0.00383 J	<0.00184	0.00557 J	0.00221 J	0.00475 J	0.0643	0.00276 JB
	MW-108	Jun-20			**2.79**		0.0128	0.00213 J	**0.235**	<0.000630	0.00278 J	<0.000505	<0.00500 J4	0.00120 J	0.00293 J	0.0415	<0.000950
	MW-108	Oct-20			**3.18**		0.00527	0.000782 J	**0.100**	<0.000630	<0.000685	<0.000505	<0.00500	<0.000870	0.00141 J	0.0176	<0.000950
	NCL-31	Apr-18			**0.927**		0.000514 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-31	Oct-18			**1.45**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-31	Apr-19			**1.86**		0.000429 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-31	Oct-19			**0.934**		0.000439 J	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	0.000508 JB
	NCL-31	Jun-20			**0.494**		0.000542 J	0.000195 J	<0.0000941	<0.000126	0.000241 J	<0.000101	<0.00100 J4	0.000287 J	<0.000278	0.000954 J	<0.000190
	NCL-31	Oct-20			**0.587**		0.000771 J	0.000160 J	<0.0000941	<0.000126	0.000275 J	<0.000101	<0.00100	0.000396 J	<0.000278	0.00123 J	<0.000190

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
NCL	NCL-32	Apr-18			**0.971**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-32	Oct-18			**2.11**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-32	Apr-19			**1.67**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-32	Oct-19			**0.970**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-32	Jun-20			**0.533**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-32	Oct-20			**0.800**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-33	Apr-18			**2.44**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-33	Oct-18			**4.50**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000618 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-33	Apr-19			**7.38**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-33	Oct-19			**8.53**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000371 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-33	Jun-20			**7.21**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000208 J	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-33	Oct-20			**8.54**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000230 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-34A	Apr-18			**5.16**		0.0123	<0.00387	**1.02**	<0.00260	<0.00384	<0.00367	<0.0100	<0.00341	<0.00412	0.0390	<0.00398
	NCL-34A	Oct-18			**7.41**		0.00612 J	<0.00387	**1.11**	<0.00260	0.00672 J	<0.00367	<0.0100	<0.00341	<0.00412	0.0266 J	<0.00398
	NCL-34A	Apr-19			**6.59**		<0.00746	<0.00774	**0.479**	<0.00520	<0.00768	<0.00734	<0.0200 J3J4	<0.00682	<0.00824	<0.0212	**<0.00796**
	NCL-34A	Oct-19			**5.90**		0.00369 J	0.00207 J	**0.562**	<0.00130	0.00677	<0.00184	<0.00500	<0.00170	<0.00206	0.0175	<0.00199
	NCL-34A	Jun-20			**6.58**		0.0113 J	0.00286 J	**1.10**	<0.00252	0.00476 J	<0.00202	<0.0200 J4	<0.00348	<0.00556	0.0335 J	<0.00380
	NCL-44	Apr-18			**3.65**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-44	Oct-18			**8.38**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-44	Apr-19			**7.31**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-44	Oct-19			**5.80**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-44	Jun-20			**4.52**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000383 J	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-44	Oct-20			**5.12**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000412 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	NCL-49	Apr-18			0.0568 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Apr-18	FD		0.0559 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Oct-18			**0.0922 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Oct-18	FD		0.0672 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Apr-19			**0.0986 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Apr-19	FD		0.0811 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Oct-19			**0.153**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Oct-19	FD		**0.119**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	NCL-49	Jun-20			**0.0917 J**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-49	Jun-20	FD		0.0640 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-49	Oct-20			0.0702 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	NCL-49	Oct-20	FD		0.0750 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
North Refinery	MW-23	Apr-18		**19.3**	**13.6**		<0.0373	<0.0387	**9.68**	<0.0260	0.114	<0.0367	**0.247 J**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-23	Oct-18		**13.4**	**13.7**		<0.0373	<0.0387	**6.27**	<0.0260	0.0392 J	<0.0367	**0.145 J**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-23	Apr-19		**15.0**	**13.4**		<0.0373	<0.0387	**5.52**	<0.0260	0.0397 J	<0.0367	**<0.100**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-23	Oct-19		**4.70 B**	**20.1**		<0.00373	<0.00387	**1.42**	<0.00260	0.0105	0.0336	**0.0359 J**	<0.00341	<0.00412	<0.0106	<0.00398
	MW-23	Jun-20		**8.73**	**13.0**		<0.00322	<0.00104	**2.68**	<0.00126	0.00865 J	0.0407	**0.0380 J**	<0.00174	<0.00278	<0.00174	<0.00190
	MW-23	Oct-20		**2.93**	**17.9**		<0.00322	<0.00104	**0.915**	<0.00126	0.0264	0.0751	**0.0750**	<0.00174	<0.00278	<0.00174	<0.00190 J4
	MW-29	Apr-18		**<0.0314**	**1.03**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.000482 J	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-29	Oct-18		**0.126**	**1.10**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00403	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-29	Apr-19		**0.0472 JB**	**0.961**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00116	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-29	Oct-19		**0.128 B**	**1.28**		<0.000373	<0.000387	<0.000331	<0.000260	0.000547 J	0.00208	<0.00100	<0.000341	<0.000412 J4	<0.00106	<0.000398
	MW-29	Jun-20		**0.0764 JB**	**2.75**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00162	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-29	Oct-20		**0.0886 J**	**2.28**		<0.000322	<0.000104	0.00158	<0.000126	<0.000137	0.00251	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-39	Apr-18		**1.36**	**6.39**		**0.0678**	0.00685	**0.144**	<0.000260	0.0263	0.00147	0.00102 J	0.0452	0.00472	0.186	<0.000398
	MW-39	Oct-18		**0.758**	**4.99**		0.0156	0.00347	**0.0638**	<0.000260	0.0100	0.00180	<0.00100	0.0244	0.00321	0.0737	<0.000398
	MW-39	Apr-19		**0.785**	**6.54**		0.0144	0.00508	**0.0314**	<0.000260	0.00689	0.000625 J	<0.00100	0.0196	0.00189	0.0550	<0.000398
	MW-39	Oct-19		**0.736 B**	**5.64**		0.00573	0.00237	**0.0271**	<0.000260	0.00609	0.00113	<0.00100	0.0149	0.00336 J4	0.0412	<0.000398
	MW-39	Jun-20		**0.740**	**7.00**		0.00959	0.00206	**0.0289**	<0.000126	0.00317	0.00120	0.00109 J	0.00886	0.00195	0.0321	<0.000190 J4
	MW-39	Oct-20		**0.412**	**6.28**		0.00377	0.00119	0.00397	<0.000126	0.00165	0.00138	0.00123 J	0.00588	0.000978 J	0.0174	<0.000190 J4
	MW-40	Apr-17		**1.29**	**4.15**		0.000538 J	<0.000387	**0.00857**	<0.000260	0.000721 J	<0.000367	<0.00100	<0.000341	0.000732 J	0.0117	<0.000398
	MW-40	Apr-18		**1.18**	**2.45**		<0.000373	<0.000387	0.000769 J	<0.000260	0.000567 J	<0.000367	<0.00100	<0.000341	0.000543 J	0.00619	<0.000398
	MW-40	Apr-19		**0.769**	**3.38**		<0.000373	<0.000387	**0.0192**	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	0.00157 J	<0.000398
	MW-40	Jun-20		**0.500**	**2.45**		<0.000322	<0.000104	0.000284 J	<0.000126	0.000220 J	<0.000101	<0.00100	<0.000174	0.000363 J	0.00241 J	<0.000190
	MW-41	Apr-17		**0.249**	**1.58**		<0.000373	<0.000387	0.00339	<0.000260	<0.000384	0.00380	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-41	Apr-18		**0.111**	**3.30**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00796	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-41	Apr-19		**0.229**	**6.47**		<0.000373	<0.000387	**0.00758**	<0.000260	<0.000384	0.0178	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-41	Jun-20		**0.309 B**	**3.53**		<0.000322	<0.000104	**0.0173**	<0.000126	<0.000137	0.0254	<0.00100	<0.000174	0.000350 J	<0.000174	<0.000190
	MW-42	Apr-17		**0.262**	**3.41**		0.00352	<0.000387	**0.0240**	<0.000260	<0.000384	0.0104	<0.00100	<0.000341	0.000845 J	0.00365	<0.000398
	MW-42	Apr-18		**0.626**	**2.98**		0.00362	<0.000387	**0.0488**	<0.000260	<0.000384	0.00598	<0.00100	<0.000341	0.000959 J	0.00420	<0.000398
	MW-42	Apr-19		**0.822**	**5.48**		0.0148	<0.00194	**0.164**	<0.00130	<0.00192	0.00655	<0.00500	<0.00170	<0.00206	0.0226	<0.00199
	MW-42	Jun-20		**1.26 J**	**4.95**		0.0163	<0.000520	**0.109**	<0.000630	0.00108 J	0.0103	<0.00500	<0.000870	0.00172 J	0.0535	<0.000950
	MW-43	Apr-18		**73.8**	**5.89**		**0.665**	**0.151**	**38.5**	<0.0130	0.215	0.0477 J	**0.303**	**0.264**	0.124	**1.78**	**<0.0199**
	MW-43	Oct-18		**35.8**	**6.37**		**0.585**	**0.131**	**10.7**	<0.0130	0.0818	0.0545	**0.235 J**	**0.237**	0.239	**1.57**	**<0.0199**
	MW-43	Apr-19		**2.12**	**7.90**		**0.450**	**0.0997 J**	**6.22**	<0.0520	<0.0768	<0.0734	**0.307 J**	<0.0682	<0.0824	**0.744**	**<0.0796**
	MW-43	Oct-19		**32.6 B**	**13.5**		**0.423**	**0.128 J**	**5.74**	<0.0520	0.129 J	<0.0734	**0.229 J**	<0.0682	<0.0824	0.610	**<0.0796**
	MW-43	Jun-20		**14.1**	**6.55**		**0.284**	0.00304 J	**3.09**	<0.00252	0.0311	0.0347	**0.132**	0.00925 J	0.0224	**0.712**	<0.00380
	MW-43	Oct-20		**34.2**	**7.74**		**0.302**	<0.00520	**9.06**	<0.00630	0.136	0.0481 J	**0.105 J**	0.0510	0.0676	**0.903**	**<0.00950** J4
	MW-59	Apr-17		**0.163**	**0.835**		<0.000373	<0.000387	0.00218	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-59	Apr-18		**0.232**	**0.576**		<0.000373	<0.000387	0.00105	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-59	Apr-19		**0.0605 JB**	**1.08**		<0.000373	<0.000387	0.000519 J	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-59	Jun-20		**0.302 B**	**2.97**		<0.000322	<0.000104	0.00112	<0.000126	<0.000137	0.00350	0.00202 J	<0.000174	<0.000278	<0.000174	<0.000190
	MW-60	Apr-18		**0.319**	**0.633**		<0.000373	<0.000387	0.00261	<0.000260	0.000526 J	<0.000367	<0.00100	<0.000341	<0.000412	0.00229 J	<0.000398
	MW-60	Apr-18	FD	**0.347**	**0.688**		<0.000373	<0.000387	0.00176	<0.000260	0.000433 J	<0.000367	<0.00100	<0.000341	<0.000412	0.00196 J	<0.000398
	MW-60	Oct-18		**0.593**	**1.23**		<0.000373	<0.000387	**0.0265**	<0.000260	0.00115	<0.000367	<0.00100	<0.000341	0.000664 J	0.00573	<0.000398
	MW-60	Oct-18	FD	**0.502**	**1.09**		<0.000373	<0.000387	**0.0277**	<0.000260	0.000973 J	<0.000367	<0.00100	<0.000341	0.000704 J	0.00540	<0.000398
	MW-60	Apr-19		**0.252**	**1.61**		0.000401 J	<0.000387	0.00434	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	0.00202 J	<0.000398
	MW-60	Apr-19	FD	**0.281**	**1.11**		<0.000373	<0.000387	0.00207	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	0.00124 J	<0.000398
	MW-60	Oct-19		**0.646 B**	**1.01**		<0.000373	<0.000387	0.000658 J	<0.000260	0.000798 J	<0.000367	<0.00100	<0.000341	<0.000412 J4	0.0114	<0.000398
	MW-60	Oct-19	FD	**0.632 B**	**1.00**		<0.000373	<0.000387	0.000602 J	<0.000260	0.000739 J	<0.000367	<0.00100	<0.000341	<0.000412	0.0108	<0.000398
	MW-60	Jun-20		**0.466**	**0.754**		<0.000322	<0.000104	0.00187	<0.000126	0.000281 J	<0.000101	<0.00100	<0.000174	<0.000278	0.00157 J	<0.000190
	MW-60	Jun-20	FD	**0.337**	**0.707**		0.000401 J	<0.000104	0.00390	<0.000126	0.000296 J	<0.000101	<0.00100	<0.000174	<0.000278	0.00194 J	<0.000190
	MW-60	Oct-20		**0.528**	**1.03**		<0.000322	<0.000104	0.00231	<0.000126	0.000461 J	0.000168 J	<0.00100	<0.000174	<0.000278	0.00238 J	<0.000190
	MW-60	Oct-20	FD	**0.587**	**0.930**		<0.000322	<0.000104	0.00279 B	<0.000126	0.000472 J	0.000180 J	<0.00100 J4	<0.000174	<0.000278	0.00224 J	<0.000190
	MW-61	Apr-18		**7.59**	**2.55**		**0.198**	<0.0194	**1.36**	0.0379 J	0.0846	<0.0184	**0.250 J**	<0.0170	0.0844	0.450	**<0.0199**
	MW-61	Oct-18		**13.4**	**4.40**		**0.165**	<0.0194	**1.52**	<0.0130	0.0367 J	<0.0184	**0.0940 J**	<0.0170	0.0795	0.353	**<0.0199**
	MW-61	Apr-19		**6.39**	**2.67**		**0.174**	<0.0194	**1.59**	<0.0130	0.0512	<0.0184	**0.117 J**	<0.0170	0.106	0.483	**<0.0199**
	MW-61	Oct-19		**11.1 B**	**4.75**		**0.237**	<0.0194	**0.835**	<0.0130	0.0550	<0.0184	**0.211 J**	<0.0170	0.0848	0.571	**<0.0199**
	MW-61	Jun-20		**13.0 B**	**4.45**		**0.222**	<0.00520	**1.60**	<0.00630	0.0545	<0.00505	**0.177 J**	<0.00870	0.153	0.611	**<0.00950**
	MW-61	Oct-20		**11.7**	**4.58**		**0.241**	0.0191 J	**1.60**	<0.00630	0.0519	0.0110 J	**0.177 J**	<0.00870	0.161	**0.695**	**<0.00950** J4
	MW-62	Apr-18		**9.38**	**4.28**		**0.715**	**0.166**	**1.59**	<0.0260	0.129	<0.0367	**0.313 J**	<0.0341	<0.0412	**1.15**	**<0.0398**
	MW-62	Oct-18		**11.6**	**7.19**		**0.602**	**0.144**	**1.54**	<0.0260	0.106	<0.0367	**0.183 J**	<0.0341	<0.0412	**0.871**	**<0.0398**
	MW-62	Apr-19		**6.09**	**6.18**		**0.536**	**0.129**	**1.87**	<0.00520	0.0652	<0.00734	**0.177**	<0.00682	<0.00824	**0.988**	**<0.00796**
	MW-62	Oct-19		**10.6 B**	**8.55**		**0.537**	**0.123**	**1.77**	<0.00520	0.0653	0.0449	**0.177**	<0.00682	<0.00824	**0.874**	**<0.00796**
	MW-62	Jun-20		**9.16**	**7.79**		**0.382**	**0.0782**	**1.09**	<0.00252	0.0506	0.0672	**0.177**	<0.00348	<0.00556	0.557	<0.00380
	MW-62	Oct-20		**7.35**	**7.46**		**0.347**	**0.0783**	**1.24**	<0.00252	0.151	0.0836	**0.116**	0.00538 J	<0.00556	**0.762**	<0.00380 J4
	MW-62R	Oct-20		**7.74**	**11.4**		**0.0775**	0.0117	**1.92**	<0.000126	0.0302	0.0107	**0.0790**	0.00103	0.000571 J	0.137	<0.000190 J4
	MW-67	Oct-17		**0.649**	**8.48 J3J4**		0.00119	<0.000387	**0.130**	0.00275	0.00330	**0.201**	<0.00100	<0.000341	0.00140	0.00245 J	0.000515 J
	MW-67	Apr-18		**1.53**	**4.25**		0.00206 J	<0.00194	**0.147**	<0.00130	0.00500	**0.219**	<0.00500	<0.00170	0.00261 J	0.00916 J	<0.00199
	MW-67	Oct-18		**0.562**	**7.73**		0.000557 J	<0.000387	0.00480	0.00122	0.000620 J	**0.289**	<0.00100	<0.000341	<0.000412	0.00113 J	0.000424 J
	MW-67	Apr-19		**0.868**	**9.31**		<0.00186	<0.00194	**0.122**	<0.00130	0.00237 J	**0.140**	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				TPH			Volatile Organic Compounds										
	Analyte Group																
	Analyte			GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
	CAS			TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
	Units			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	CGWSL			0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
	CGWSL Source			NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup														
North Refinery	MW-90	Apr-18		**0.354**	**3.29**		<0.000373	<0.000387	0.000758 J	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-90	Oct-18		**0.397 B**	**5.54**		<0.000373	<0.000387	0.00103	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-90	Apr-19		**0.0877 J**	**4.99**		<0.000373	<0.000387	0.00125	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-90	Oct-19		**0.321 B**	**2.21**		<0.000373	<0.000387	0.00267	<0.000260	0.000557 J	<0.000367	<0.00100	<0.000341	0.000519 JJ4	<0.00106	<0.000398
	MW-90	Jun-20		**0.412**	**3.69**		<0.000322	<0.000104	0.00305	<0.000126	0.000290 J	<0.000101	<0.00100	0.000299 J	0.000350 J	0.000299 J	<0.000190
	MW-90	Oct-20		**0.498**	**3.99**		<0.000322	<0.000104	0.00334	<0.000126	0.000310 J	<0.000101	<0.00100	0.000349 J	0.000323 J	0.000349 J	<0.000190 J4
	MW-91	Apr-18		**17.2**	**8.33**		**0.214**	**0.0671 J**	**2.41**	<0.0260	0.258	<0.0367	**0.136 J**	0.138	**1.23**	**0.697**	**<0.0398**
	MW-91	Oct-18		**16.7**	**11.8**		**0.182**	0.0510 J	**2.86**	<0.0260	0.210	<0.0367	**<0.100**	0.164	**1.24**	**0.716**	**<0.0398**
	MW-91	Apr-19		**13.8**	**15.8**		**0.216**	0.0571 J	**2.89**	**0.0926 J**	0.481	<0.0367	**<0.100**	0.187	**1.94**	**0.799**	**<0.0398**
	MW-91	Oct-19		**34.8 B**	**10.8**		**0.239**	**0.0675 J**	**4.07**	<0.0260	**1.48**	<0.0367	**<0.100**	**0.548**	**7.07 J4**	**2.12**	**<0.0398**
	MW-91	Jun-20		**36.2**	**11.5**		**0.234**	**0.0671 J**	**4.12**	<0.0126	**1.85**	<0.0101	**<0.100**	**0.649**	**6.95**	**2.50**	**<0.0190**
	MW-92	Apr-16		**5.50**	**20.4**		**0.0588**	0.0174	**2.87**	0.0640	0.462	**0.113**	**0.224 J**	0.0268	0.0173	0.188	<0.000398
	MW-92	Oct-16		**6.05**	**22.8**		0.0308	0.00835 J	**2.05**	**0.0968**	0.400	**0.134**	**0.174**	0.0151 J	<0.0156	0.110	**<0.00796**
	MW-93	Apr-17		**3.73**	**7.89**		**0.148**	0.0236 J	**0.633**	<0.00650	<0.00960	<0.00918	**0.0422 J**	<0.00852	<0.0103	0.326	**<0.00995**
	MW-93	Apr-18		**3.59**	**5.05**		**0.116**	0.0260	**0.857**	0.000281 J	0.00738	<0.000367	0.0256	0.00452	0.00797	0.336	<0.000398
	MW-93	Apr-19		**2.82**	**7.92**		**0.187**	0.0356	**0.673**	0.000267 J	0.00962	<0.000367	**0.0482**	0.00409	0.00748	0.303	<0.000398
	MW-93	Jun-20		**6.28**	**8.54**		**0.111**	0.0243	**1.21**	<0.00252	0.00622 J	<0.00202	**0.0519 J**	<0.00348	0.0123 J	0.296	<0.00380
	MW-94	Oct-15		**6.12**	**25.6**		**0.432**	**0.0857**	**0.339**	<0.00260	0.509	**0.798**	**0.202**	**0.360**	0.553	0.574	<0.00398
	MW-94	Apr-16		**7.91**	**8.69**		**0.489**	**0.100**	**0.417**	0.0149 J	0.553	**0.621**	**0.228 J**	**0.387**	0.687	0.615	**<0.0199**
	MW-94	Oct-16		**6.83**	**9.76**		**0.458**	**0.0917**	**0.297**	<0.00130	0.564	**2.01**	**0.128**	**0.390**	0.468	0.592	<0.00199
	MW-94	Apr-17		**10.2**	**9.96**		**0.398**	**0.0785**	**0.284**	<0.00650	0.432	**0.958**	**0.174**	**0.292**	0.435	0.460	**<0.00995**
	MW-95	Apr-17		**0.0826 J**	**6.96**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-95	Apr-18		**<0.0314**	**3.68**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-95	Apr-19		**<0.0314**	**7.34**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-95	Jun-20		**0.162 B**	**6.29**		<0.000322	<0.000104	0.000603 J	<0.000126	0.000196 J	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-96	Apr-18		**36.5**	**4.65**		<0.0186	<0.0194	**<0.0166**	<0.0130	<0.0192	**29.4**	**<0.0500**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-96	Oct-18		**31.3**	**8.07**		**<0.373**	**<0.387**	**<0.331**	**<0.260**	<0.384	**26.7**	**<1.00**	**<0.341**	<0.412	**<1.06**	**<0.398**
	MW-96	Apr-19		**17.0**	**9.67**		<0.0186	<0.0194	**<0.0166**	<0.0130	<0.0192	**32.7**	**<0.0500**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-96	Oct-19		**25.7 B**	**6.80**		<0.0187	<0.0194	**<0.0166**	<0.0130	<0.0192	**33.3**	**<0.0500**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-96	Jun-20		**30.4**	**8.28**		**<0.0805**	<0.0260	**<0.0235**	<0.0315	<0.0343	**37.6**	**<0.250**	<0.0435	<0.0695	<0.0435	**<0.0475**
	MW-96	Oct-20		**71.6**	**6.91**		**<0.0805**	<0.0260	**0.0424 J**	<0.0315	<0.0343	**40.5**	**<0.250**	<0.0435	<0.0695	<0.0435	**<0.0475** J4
	MW-98	Apr-18		**25.4**	**4.78**		**0.475**	**0.116**	**3.17**	<0.0130	**1.08**	<0.0184	**0.327**	0.0245 J	0.282	**1.90**	**<0.0199**
	MW-98	Oct-18		**20.9**	**5.69**		**0.480**	**0.103**	**2.64**	<0.0130	**1.09**	<0.0184	**0.257**	0.0272 J	0.269	**2.16**	**<0.0199**
	MW-98	Apr-19		**25.0**	**5.64**		**0.618**	**0.138**	**2.69**	<0.0130	**1.18**	<0.0184	**0.251**	0.0314 J	0.284	**2.19**	**<0.0199**
	MW-98	Oct-19		**19.5 B**	**6.15**		**0.453**	**0.112**	**1.88**	<0.0130	**0.870**	<0.0184	**0.301**	0.0266 J	0.246	**1.87**	**<0.0199**
	MW-98	Jun-20		**16.7**	**6.31**		**0.646**	**0.110**	**1.74**	<0.00630	**0.711**	<0.00505	**0.255**	0.0256 J	0.202	**2.17**	**<0.00950** J4
	MW-98	Oct-20		**22.0**	**5.31**		**0.371**	**0.0820**	**1.73**	<0.00630	**0.788**	<0.00505	**0.207 J**	0.0254 J	0.236	**1.88**	**<0.00950** J4
	MW-137	Oct-17		**33.1**	**11.3**		**0.559**	**0.137 J**	**12.5**	<0.0520	**1.53**	0.0754 J	**0.317 J**	**0.265**	**1.54**	**1.16**	**<0.0796**
	MW-137	Apr-18		**26.6**	**9.60**		**0.531**	**0.125 J**	**9.63**	<0.0520	**1.86**	0.0758 J	**0.373 J**	**0.398**	**1.83**	**1.30**	**<0.0796**
	MW-137	Oct-18		**32.6**	**8.76**		**0.342**	**<0.0774**	**10.6**	<0.0520	**1.09**	0.0876 J	**0.237 J**	0.165 J	0.977	**0.688**	**<0.0796**
	MW-137	Apr-19		**33.2**	**9.76**		**0.426**	**0.0946 J**	**7.93**	<0.0520	**1.21**	<0.0734	**<0.200**	**0.274**	**1.28**	**0.821**	**<0.0796**
	MW-138	Oct-17		**2.20**	**15.0**		0.00547	<0.00194	**0.701**	<0.00130	0.0244	**0.163**	**0.0635**	<0.00170	0.00577	0.00565 J	<0.00199
	MW-138	Apr-18		**2.44**	**6.05**		0.0413	0.00633	**0.741**	<0.00130	0.222	**0.188**	**0.0667**	0.00541	0.0128	0.0492	<0.00199
	MW-138	Oct-18		**4.06**	**6.00**		**0.0799**	0.0121	**0.628**	<0.00130	0.423	**0.269**	**0.0379**	0.00635	0.00806	0.115	<0.00199
	MW-138	Apr-19		**4.17**	**6.67**		**0.126**	0.0214	**0.663**	<0.00130	0.389	**0.171**	**0.0377**	0.00315 J	0.00480 J	0.100	<0.00199
	RW-1R	Apr-16		**2.13**	**8.54**		0.00369	0.000516 J	**0.426**	**2.14**	0.0214	0.0133	0.00762	0.00110	0.00542	0.0122	**0.00959**
	RW-1	Apr-17		**2.20**	**21.5**		<0.00373	<0.00387	**0.696**	**0.624**	0.0169	0.0441	<0.0100	<0.00341	0.0102	<0.0106	**0.00896 J**
	RW-1	Apr-18		**6.05**	**8.92**		0.0303	0.00550	**1.52**	**0.681**	0.0964	0.0292	0.0132	0.00282	0.0176	0.0855	**0.0169**
	RW-1	Apr-19		**5.13**	**16.1**		0.0348	0.00566	<0.000331	**0.980**	0.102	0.0218	0.00849	0.00412	0.0221	0.0844	**0.0237**
	RW-2	Apr-15		**18.3**	**19.7**		**0.330**	**0.0772**	**5.34**	**0.619**	**1.02**	<0.00370	**0.157 J**	0.0853	0.115	0.530	**0.0326**
	RW-2R	Apr-16		**20.8**	**17.3**		**0.188**	0.0419 J	**5.86**	**0.555**	0.591	0.0226 J	**0.145 J**	0.0461 J	0.0569 J	0.299	**0.0285 J**
	RW-2	Apr-17		**17.2**	**11.6**		**0.271**	**0.0664**	**7.78**	**0.828**	**0.837**	<0.0184	**0.145 J**	0.0183 J	0.0430 J	0.431	**0.0249 J**
	RW-2	Apr-18		**20.5**	**8.31**		**0.329**	**0.0783**	**4.68**	**0.543**	0.672	0.0120	**0.190**	0.00601	0.0312	0.446	**0.00521**
	RW-7	Apr-17		**<0.0314**	**1.15**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0325	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-7	Apr-18		**0.177**	**11.3**		0.00502	0.000415 J	**0.0319**	<0.000260	0.00132	0.0378	0.00204 J	0.00114	0.00106	0.00545	<0.000398
	RW-7	Apr-19		**0.230**	**19.1**		0.00114	<0.000387	**0.0114**	<0.000260	<0.000384	0.0229	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-7	Jun-20		**0.334 JB**	**7.54**		0.000639 J	<0.000104	0.00487	<0.000126	0.000204 J	0.00825	<0.00100	0.000305 J	0.000397 J	0.00240 J	<0.000190
	RW-8	Apr-15			**7.30**		0.00710 J	<0.00390	**0.0412**	<0.00260	0.00801 J	**2.41**	<0.0100	<0.00340	<0.00780	<0.0110	<0.00400
	RW-8	Apr-17			**11.6**		**0.0928**	0.0249	**0.0718**	0.000478 J	0.0198	**1.94**	**0.0320**	0.0112	0.00213	0.0498	0.00110
	RW-9	Apr-17		**2.36**	**3.21**		0.000991 J	<0.000387	**0.290**	<0.000260	0.00105	0.00435	<0.00100	<0.000341	0.00184	0.0193	<0.000398
	RW-9	Apr-18		**2.20**	**2.31**		0.00314	<0.000387	**0.243**	<0.000260	0.00159	0.00409	<0.00100	<0.000341	0.00218	0.0180	<0.000398
	RW-9	Apr-19		**1.67**	**4.33**		<0.000373	<0.000387	**0.0968**	<0.000260	0.00108	0.00439	<0.00100	<0.000341	0.00179	0.00929	<0.000398
	RW-9	Jun-20		**0.821**	**4.02**		0.000722 J	0.000313 J	0.000141 J	<0.000126	0.000448 J	0.0674	<0.00100	0.000387 J	0.00108	0.00136 J	<0.000190
	RW-10	Apr-17		**0.207**	**2.90**		<0.000373	<0.000387	<0.000331	<0.000260	0.000403 J	<0.000367	<0.00100	0.00299	0.00119	0.00378	<0.000398
	RW-10	Apr-18		**0.380**	**2.81**		0.000631 J	<0.000387	<0.000331	<0.000260	0.000727 J	<0.000367	<0.00100	0.00346	0.00163	0.00474	<0.000398
	RW-10	Apr-19		**0.195**	**3.06**		0.000377 J	<0.000387	<0.000331	<0.000260	0.000633 J	<0.000367	<0.00100	0.00272	0.00135	0.00369	<0.000398
	RW-10	Jun-20		**0.219**	**3.33**		0.000959 J	0.000180 J	0.000205 J	<0.000126	0.000865 J	0.000418 J	<0.00100	0.00235	0.00150	0.00387	<0.000190 J4
	RW-16B	Apr-17			**1.08**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0152	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-16B	Apr-18			**0.350**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00172	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-16B	Apr-19			**0.744**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00166	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-16B	Jun-20			**2.12**		0.000398 J	0.000156 J	<0.0000941	<0.000126	0.000328 J	0.00482	<0.00100	0.000377 J	0.000428 J	0.00125 J	<0.000190
	RW-17A	Apr-17		**0.0622 J**	**2.57**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.189**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-17A	Apr-18		**0.0927 J**	**1.57**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.107**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-17A	Apr-19		**<0.0314**	**1.45**		<0.000373	<0.000387	0.000850 J	<0.000260	<0.000384	0.0434	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RW-17A	Jun-20		**0.0426 J**	**1.44**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
North RO Field	MW-117	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-117	Oct-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-117	Apr-19		**0.0967 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-117	Oct-19		**0.0732 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-117	Jun-20		**<0.0314**	**0.109**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.000222 J	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-117	Oct-20		**<0.0314**	**0.0997 JB**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00195	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-118	Apr-18		**<0.0314**	<0.0282		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-118	Oct-18		**<0.0314**	0.0325 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-118	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-118	Oct-19		**0.0728 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-118	Jun-20		**<0.0314**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-118	Oct-20		**<0.0314**	0.0817 JB		<0.000322	<0.000104	<0.0000941	<0.000126	0.000149 J	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-119	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-119	Oct-18		**<0.0314**	0.0470 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-119	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-119	Oct-19		**0.0830 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-119	Jun-20		**<0.0314**	**0.376**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-119	Oct-20		**<0.0314**	**0.215 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
South Refinery	KWB-2R	Apr-17			**1.35**		0.0341	<0.000387	**0.0260**	<0.000260	0.00543	0.0192	0.00609	0.000772 J	<0.000412	0.0281	<0.000398
	KWB-2R	Oct-17			**4.84**		**0.150**	<0.000387	**1.12**	<0.000260	0.325	0.0202	**0.0675**	0.00977	0.0161	0.193	<0.000398
	KWB-2R	Apr-19			**0.887**		**0.148**	0.00172	**0.177**	<0.000260	0.686	0.0235	0.00993 J4	0.00500	0.00820	0.180	<0.000398
	KWB-2R	Oct-19			**4.64**		**0.139**	0.00233	**0.920**	<0.000260	0.264	0.0216	**0.0323**	0.00608	0.0140 J4	0.115	<0.000398
	KWB-5	Oct-17			**1.55**		**<0.0932**	<0.000387	**0.336**	<0.000260	<0.0960	**12.4**	0.0131	<0.0852	0.00156	<0.265	<0.000398
	KWB-5	Apr-18			**1.70**		**<0.0932**	**<0.0968**	**0.411**	<0.0650	<0.0960	**10.3**	**<0.250**	<0.0852	<0.103	<0.265	**<0.0995**
	KWB-5	Oct-18			**1.62**		**<0.0932**	**<0.0968**	**0.278**	<0.0650	<0.0960	**10.8**	**<0.250**	<0.0852	<0.103	<0.265	**<0.0995**
	KWB-5	Apr-19			**1.73**		**<0.0932**	**<0.0968**	**0.425**	<0.0650	<0.0960	**9.94**	**<0.250** J4	<0.0852	<0.103	<0.265	**<0.0995**
	KWB-6	Apr-17			**2.04**		**0.399**	0.0517	**4.67**	<0.00130	0.346	**0.154**	**0.0563**	0.0179	0.0205	0.391	<0.00199
	KWB-6	Oct-17			**2.16**		**0.206**	0.0302	**3.22**	<0.000260	0.183	**0.102**	**0.0436**	0.00804	0.0122	0.283	<0.000398
	KWB-6	Apr-18			**1.77**		**0.164**	0.0557	**3.88**	<0.00520	0.156	**0.122**	**0.0587 J**	0.0350	0.00879 J	0.258	**<0.00796**
	KWB-6	Oct-18			**1.52**		**0.122**	**0.0611**	**2.64**	<0.00520	0.102	**0.120**	**0.0469 J**	0.0234	0.0126 J	0.379	**<0.00796**

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
South Refinery	MW-28	Apr-18			**5.55**	**3.62**		**0.110**	<0.0194	**0.959**	<0.0130	0.0408 J	0.0977	**0.0604 J**	<0.0170	0.0316 J	0.144 J	**<0.0199**
	MW-28	Oct-18			**1.30**	**4.68**		0.0165 J	<0.00774	**0.356**	<0.00520	0.00788 J	0.0425	<0.0200	<0.00682	<0.00824	0.0301 J	**<0.00796**
	MW-28	Apr-19			**5.37**	**8.80**		**0.107**	<0.0194	**1.43**	<0.0130	0.0274 J	**0.268**	**0.0736 J**	<0.0170	0.0272 J	0.140 J	**<0.0199**
	MW-28	Oct-19			**10.4 B**	**11.6**		**0.213**	0.0243 J	**1.51**	<0.0130	0.0375 J	**0.692**	**0.137 J**	<0.0170	0.0384 J	0.264	**<0.0199**
	MW-28	Jun-20			**3.94**	**3.91**		0.0527	<0.000520	**0.397**	<0.000630	0.0201	**0.194**	0.0157 J	0.00154 J	0.0126	0.0916	<0.000950
	MW-28	Oct-20			**1.65**	**5.28**		0.0430	0.00133 J	**0.362**	<0.000630	0.0136	**0.214**	0.00638 J	0.00171 J	0.00882	0.0626	<0.000950
	MW-48	Apr-18			**45.6**	**6.50**		**0.381**	**<0.0968**	**14.9**	<0.0650	**1.36**	**0.171 J**	**<0.250**	<0.0852	**1.02**	**0.955**	**<0.0995**
	MW-48	Oct-18			**21.8**	**5.56**		**0.377**	**<0.0968**	**7.97**	<0.0650	0.479	**0.611**	**<0.250**	<0.0852	<0.103	0.358 J	**<0.0995**
	MW-48	Apr-19			**17.7**	**6.53**		**0.564**	**<0.0968**	**4.87**	<0.0650	0.603	**0.372**	**1.20 JJ4**	<0.0852	0.152 J	0.498 J	**<0.0995**
	MW-48	Oct-19			**31.9 B**	**6.48**		**0.240 J**	**<0.0967**	**5.04**	<0.0650	0.118 J	**0.517**	**<0.250**	<0.0852	0.138 J	0.290 J	**<0.0995**
	MW-50	Apr-18				**0.489**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-50	Oct-18				**0.677**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-50	Apr-19				**0.632**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-50	Oct-19				**0.399**		<0.000373	<0.000387	<0.000331	<0.000260	0.000417 J	<0.000367	<0.00100	<0.000341	<0.000412 J4	<0.00106	<0.000398
	MW-50	Jun-20				**0.522**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-50	Oct-20				**0.526**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-52	Apr-18			**<0.0314**	**0.231 B**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-52	Oct-18			**<0.0314**	**0.269**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-52	Apr-19			**0.0328 JB**	**0.146**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-52	Oct-19			**0.0776 JB**	**0.183**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-52	Jun-20			**<0.0314**	**0.294**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-52	Oct-20			**<0.0314**	**0.282**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-64	Apr-18			**102**	**8.37**		0.0519	0.0107 J	**2.37**	<0.00520	0.237	0.0359	0.0238 J	0.122	0.816	0.482	**<0.00796**
	MW-64	Oct-18			**141**	**7.23**		**0.620**	**0.123**	**38.6**	<0.00520	**2.47**	**0.510**	**0.158**	**1.06**	**13.0**	**4.72**	**<0.00796**
	MW-64	Apr-19			**130**	**9.22**		**0.592**	**0.117**	**33.6**	<0.00520	**2.46**	**0.509**	**0.171**	**1.49**	**15.4**	**5.39**	**<0.00796**
	MW-64	Oct-19			**96.0**	**6.97**		**0.522**	**0.102**	**35.7**	<0.00650	**2.79**	**0.502**	**0.133**	**1.14**	**11.2**	**5.06**	**<0.00995**
	MW-64	Jun-20			**102**	**8.18**		**0.453 J**	**0.0760 J**	**27.5**	<0.0630	**1.76**	**0.461 J**	**<0.500**	**1.03**	**9.93**	**4.29**	**<0.0950** J4
	MW-64	Oct-20			**94.8**	**6.54**		**0.252 J**	<0.0520	**27.2**	<0.0630	**1.55**	**0.560**	**<0.500**	**0.794**	**8.09**	**3.10**	**<0.0950**
	MW-65	Apr-18			**15.5**	**5.05**		<0.0373	<0.0387	**4.39**	<0.0260	0.0528 J	**1.73**	**0.253 J**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-65	Oct-18			**10.4**	**4.57**		<0.0373	<0.0387	**2.84**	<0.0260	<0.0384	**2.38**	**<0.100**	<0.0341	<0.0206	<0.106	**<0.0398**
	MW-65	Apr-19			**16.9**	**4.86**		<0.0373	<0.0387	**5.45**	<0.0260	0.0628 J	**2.35**	**0.152 J**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-65	Oct-19			**21.4 B**	**3.59**		<0.0373	<0.0387	**6.07**	<0.0260	0.0565 J	**1.82**	**0.148 J**	<0.0341	<0.0412	<0.106	**<0.0398**
	MW-66	Apr-18			**9.68**	**2.97**		<0.00373	<0.00387	**2.27**	<0.00260	0.00776 J	**1.78**	**0.186**	<0.00341	0.00814 J	0.0118 J	<0.00398
	MW-66	Oct-18			**6.51**	**4.31**		<0.00373	<0.00387	**1.95**	<0.00260	0.00686 J	**2.05**	**0.161**	<0.00341	0.00704 J	<0.0106	<0.00398
	MW-66	Apr-19			**6.03**	**3.25**		<0.00932	<0.00968	**0.916**	<0.00650	<0.00960	**1.36**	**0.0987 J**	<0.00852	<0.0103	<0.0265	**<0.00995**
	MW-66	Oct-19			**7.15 B**	**2.77**		<0.00933	<0.00968	**1.24**	<0.00650	<0.00960	**1.69**	**0.0758 J**	<0.00852	<0.0103	<0.0265	**<0.00995**
	MW-66	Jun-20			**8.44**	**2.19**		0.000705 J	<0.000104	**1.18**	<0.000126	0.00717	**1.62**	**0.167**	0.00239	0.00581	0.0145	<0.000190
	MW-66	Oct-20			**4.41**	**3.36**		<0.00322	<0.00104	**0.965**	<0.00126	0.00643 J	**1.90**	**0.0737**	0.00183 J	0.00445 J	0.00787 J	<0.00190
	MW-99	Apr-18			**11.9**	**1.52**		**0.168**	<0.0387	**2.15**	<0.0260	0.275	**2.99**	**<0.100**	0.0467 J	0.0896 J	0.332	**<0.0398**
	MW-99	Oct-18			**11.9**	**2.23**		**0.284**	<0.0387	**2.54**	<0.0260	0.201	**3.10**	**<0.100**	<0.0341	<0.0412	0.358	**<0.0398**
	MW-99	Apr-19			**14.9**	**2.93**		**0.352**	<0.0387	**1.67**	<0.0260	0.491	**2.24**	**<0.100**	<0.0341	<0.0412	0.379	**<0.0398**
	MW-99	Oct-19			**5.02**	**2.30**		**0.234**	<0.0387	**0.233**	<0.0260	0.241	**0.533**	**<0.100**	<0.0341	<0.0412	0.218 J	**<0.0398**
	MW-99	Jun-20			**3.97**	**4.19**		**0.149**	<0.00104	**0.414**	<0.00126	0.0866	**0.379**	<0.0100	0.00630 J	0.00330 J	0.0784	<0.00190
	MW-101	Apr-18			**0.485 J**	**3.21**		<0.000373	<0.000387	0.00149	<0.000260	<0.000384	0.0900	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-101	Oct-18			**0.452**	**5.05**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.125**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-101	Apr-19			**0.421**	**3.98**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0830	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-101	Oct-19			**0.440 B**	**4.58**		<0.000373	<0.000387	0.000430 J	<0.000260	<0.000384	0.0766	0.00270 J	<0.000341	<0.000412	<0.00106	<0.000398
	MW-101	Jun-20			**0.553**	**4.85**		<0.000322	<0.000104	0.00438	<0.000126	0.000302 J	0.0502	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4
	MW-101	Oct-20			**5.37**	**6.07**		0.0254	0.00284	**2.32**	<0.000126	0.0180	0.0532	0.0180	0.000814 J	0.00858	0.0779	<0.000190 J4
	MW-102	Apr-18			**32.7**	**34.6**		**0.288 J**	**<0.194**	**7.63**	**<0.130**	**0.903**	**1.19**	**<0.500**	<0.170	<0.206	<0.530	**<0.199**
	MW-102	Oct-18			**41.8**	**10.4**		**0.196 J**	**<0.194**	**12.9**	**<0.130**	0.648	**1.68**	**<0.500**	<0.170	0.889	<0.530	**<0.199**
	MW-102	Apr-19			**27.7**	**9.96**		**0.235**	0.0306	**11.0**	<0.000260	<0.000384	**1.79**	**0.178**	0.0430	0.169	0.405	<0.000398
	MW-102	Oct-19			**34.7 B**	**13.6**		**0.263**	0.0481 J	**12.3**	<0.0130	**0.908**	**1.55**	**0.179 J**	0.0825	0.238	0.532	**<0.0199**
	MW-102	Jun-20			**27.1**	**5.50**		**0.0927 J**	<0.0104	**7.10**	<0.0126	0.477	**0.719**	**0.142 J**	<0.0174	0.0484 J	0.188 J	**<0.0190**
	MW-102	Oct-20			**28.9**	**9.97**		**0.0910 J**	0.0117 J	**8.72**	<0.0126	0.537	**1.20**	**0.127 J**	0.0274 J	0.0746 J	0.254 J	**<0.0190**
	MW-103	Apr-17			**3.46**	**6.94**		<0.0186	<0.0194	**1.30**	<0.0130	<0.0192	<0.0184	**<0.0500**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-103	Apr-18			**6.45**	**6.23**		<0.000373	<0.000387	**1.75**	<0.000260	0.0384	<0.000367	**0.116**	0.00461	0.0408	0.0124	<0.000398
	MW-103	Apr-19			**6.55**	**7.87**		<0.00746	<0.00774	**1.39**	<0.00520	0.0573	<0.00734	0.0256 J	<0.00682	0.0347	<0.0212	**<0.00796**
	MW-103	Jun-20			**5.15**	**6.08**		<0.00644	<0.00208	**1.14**	<0.00252	0.00844 J	<0.00202	<0.0200	<0.00348	0.0121 J	<0.00348	<0.00380 J4
	MW-104	Apr-18			**1.40**	**1.85**		<0.000373	<0.000387	**0.142**	<0.000260	0.000906 J	0.00320	0.00239 J	<0.000341	0.000415 J	<0.00106	<0.000398
	MW-104	Apr-18	FD		**1.53**	**1.80**		<0.00186	<0.00194	**0.139**	<0.00130	<0.00192	0.00393 J	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-104	Oct-18			**1.44**	**3.05**		<0.000373	<0.000387	**0.198**	<0.000260	0.00315	0.00661	0.00175 J	<0.000341	0.000463 J	<0.00106	<0.000398
	MW-104	Oct-18	FD		**1.38**	**2.87**		<0.00186	<0.00194	**0.186**	<0.00130	0.00316 J	0.00582	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	MW-104	Apr-19			**1.53**	**2.23**		<0.000373	<0.000387	**0.192**	<0.000260	0.000633 J	0.00178	<0.00100	<0.000341	0.000567 J	<0.00106	<0.000398
	MW-104	Apr-19	FD		**1.20**	**2.15**		<0.000373	<0.000387	**0.190**	<0.000260	<0.000384	0.00158	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-104	Oct-19			**1.34**	**1.26**		0.000715 J	<0.000387	**0.181**	<0.000260	0.00330	0.00165	0.00216 J	<0.000341	0.000515 JJ4	<0.00106	<0.000398
	MW-104	Oct-19	FD		**1.30**	**1.36**		0.000374 J	<0.000387	**0.173**	<0.000260	0.00250	<0.00184	0.00208 J	<0.000341	<0.000412	<0.00106	<0.000398
	MW-104	Jun-20			**1.44**	**1.14**		0.000486 J	<0.000104	**0.0720**	<0.000126	<0.000137	0.000680 J	<0.00100	<0.000174	0.000324 J	<0.000174	<0.000190 J4
	MW-104	Jun-20	FD		**1.22**	**1.03**		0.000368 J	<0.000104	**0.0660**	<0.000126	0.000161 J	0.000790 J	<0.00100	<0.000174	0.000403 J	<0.000174	<0.000190 J4
	MW-104	Oct-20			**1.32**	**1.04**		<0.000322	<0.000104	0.00473	<0.000126	<0.000137	0.000402 J	<0.00100	0.000239 J	<0.000278	0.000239 J	<0.000190 J4
	MW-104	Oct-20	FD		**1.15**	**1.10**		0.000351 J	<0.000104	**0.00631**	<0.000126	<0.000137	0.000506 J	<0.00100	0.000193 J	<0.000278	0.000193 J	<0.000190 J4
	MW-105	Apr-18			**21.4**	**11.4**		**0.0805 J**	<0.0387	**8.04**	<0.0260	0.517	<0.0367	**0.106 J**	<0.0341	<0.0412	0.304	**<0.0398**
	MW-105	Oct-18			**17.7**	**13.4**		**0.0751 J**	<0.0387	**6.29**	<0.0260	0.257	<0.0367	**<0.100**	<0.0341	<0.0412	0.277 J	**<0.0398**
	MW-105	Apr-19			**20.3**	**7.24**		0.0442	0.0237	**8.07**	<0.000260	0.0988	0.00541	**0.0334**	<0.0170	0.0155	0.239	<0.000398
	MW-105	Oct-19			**17.1 B**	**7.63**		0.0522	0.0365 J	**4.23**	<0.0130	0.0963	<0.0184	**0.134 J**	<0.0170	<0.0206	0.308	**<0.0199**
	MW-105	Jun-20			**25.6**	**9.03**		0.0443 J	0.0247 J	**7.41**	<0.00630	0.0282 J	0.0234 J	**<0.0500**	<0.00870	0.0150 J	0.237	**<0.00950**
	MW-105	Oct-20			**32.8**	**9.39**		**0.0572**	0.0202 J	**11.5**	<0.00630	0.584	0.0230 J	**0.0778 J**	<0.00870	0.0187 J	0.371	**<0.00950**
	MW-106	Apr-18			**25.9**	**9.31**		**0.110 J**	**<0.0774**	**8.13**	<0.0520	0.0772 J	0.0813 J	**<0.200**	<0.0682	0.237	0.299 J	**<0.0796**
	MW-106	Oct-18			**33.9**	**11.2**		**<0.186**	**<0.194**	**11.6**	**<0.130**	<0.192	**<0.184**	**<0.500**	<0.170	0.250 J	<0.530	**<0.199**
	MW-106	Apr-19			**9.47**	**7.27**		**0.554**	**0.281 J**	**5.92**	**<0.130**	<0.192	**<0.184**	**1.24 J**	<0.170	<0.206	<0.530	**<0.199**
	MW-106	Oct-19			**60.5 B**	**16.1**		**0.0848**	<0.0194	**9.61**	<0.0130	0.0301 J	0.0757	**0.148 J**	<0.0170	0.158	0.196	**<0.0199**
	MW-106	Jun-20			**28.4 B**	**14.6**		**0.0861 J**	0.0146 J	**9.39**	<0.0126	0.0662 J	0.0672 J	**<0.100**	<0.0174	0.313	0.173 J	**<0.0190**
	MW-106	Oct-20			**54.4**	**16.5**		**0.0943 J**	<0.0208	**14.9**	<0.0252	0.161 J	**0.105 J**	**<0.200**	0.0359 J	0.295	0.289 J	**<0.0380** J4
	MW-107	Oct-16			**17.7**	**7.24**		0.00205 J	<0.00194	**6.35**	<0.00130	0.0192	**3.05**	**0.0614**	0.00265 J	0.00800 J	0.0112 J	<0.00199
	MW-107	Apr-17			**6.67**	**7.91**		<0.0186	<0.0194	**3.37**	<0.0130	<0.0192	**2.78**	**0.0788 J**	<0.0170	<0.0206	<0.0530	**<0.0199**
	MW-107	Apr-18			**21.6**	**4.50**		0.00228	0.00425	**6.55**	<0.000260	0.0382	**3.02**	**0.143**	0.00279	0.0142	0.0159	<0.000398
	MW-107	Apr-19			**23.3**	**7.93**		**<0.0932**	**<0.0968**	**6.43**	<0.0650	<0.0960	**3.39**	**<0.250**	<0.0852	<0.103	<0.265	**<0.0995**
	MW-109	Apr-18			**5.96**	**2.84**		<0.00746	<0.00774	**1.54**	<0.00520	0.0122 J	<0.00734	<0.0200	<0.00682	0.0208	0.0257 J	**<0.00796**
	MW-109	Oct-18			**6.56**	**3.76**		<0.00746	<0.00774	**1.64**	<0.00520	0.0111 J	<0.00734	<0.0200	<0.00682	0.0204	0.0220 J	**<0.00796**
	MW-109	Apr-19			**5.21 B**	**2.53**		<0.00746	<0.00774	**1.03**	<0.00520	0.0115 J	<0.00734	<0.0200 J4	<0.00682	0.0122 J	<0.0212	**<0.00796**
	MW-109	Oct-19			**5.46 B**	**2.84**		0.00288 J	<0.00194	**1.11**	<0.00130	0.00829	<0.00184	<0.00500	<0.00170	0.0151 J4	0.0136 J	<0.00199 J4
	MW-109	Jun-20			**5.44**	**2.61**		<0.00322	<0.00104	**1.78**	<0.00126	0.00892 J	<0.00101	<0.0100	<0.00174	0.0221	0.0238 J	<0.00190
	MW-109	Oct-20			**3.77**	**2.33**		<0.00322	<0.00104	**1.11**	<0.00126	0.00637 J	<0.00101	<0.0100	<0.00174	0.0123	0.0114 J	<0.00190
	MW-110	Apr-18			**2.04**	**1.27**		0.0445	0.00247	**0.173**	<0.000260	0.109	<0.000367	0.0135	0.000580 J	0.00447	0.0582	<0.000398
	MW-110	Oct-18			**0.377**	**0.774**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-110	Apr-19			**0.623**	**0.903**		0.000560 J	<0.000387	**0.0117**	<0.000260	0.000675 J	<0.000367	<0.00100 J4	<0.000341	0.000544 J	0.00169 J	<0.000398
	MW-110	Oct-19			**0.506 B**	**0.630**		<0.000373	<0.000387	0.000530 J	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-110	Jun-20			**0.587**	**0.696**		0.00293	0.000744 J	0.00152	<0.000126	0.000357 J	<0.000101	<0.00100	<0.000174	<0.000278	0.00123 J	<0.000190
	MW-110	Oct-20			**0.406**	**0.721**		<0.000322	<0.000104	0.000146 J	<0.000126	0.000175 J	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-139	Oct-19			**0.636 B**	**1.15**		<0.000373	<0.000387	0.00153	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-139	Jun-20			**0.411**	**1.55**		<0.000322	<0.000104	0.000275 J	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-139	Oct-20			**0.490**	**1.30**		<0.000322	<0.000104	0.000206 J	<0.000126	<0.000137	<0.000101	0.00410 J	<0.000174	<0.000278	<0.000174	<0.000190 J4
	RA-313	Apr-17						<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-313	Apr-18						<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	RA-313	Apr-19						<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	RA-313	Jun-20						<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
South Refinery	RW-4	Apr-17			**2.35**		<0.00186	<0.00194	**0.0294**	<0.00130	<0.00192	**0.132**	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	RW-4	Apr-18			**1.02**		0.000659 J	<0.000387	**0.00821**	<0.000260	<0.000384	0.0583	0.00103 J	<0.000341	<0.000412	<0.00106	<0.000398
	RW-4	Apr-19			**2.53**		0.00105	0.000400 J	**0.0854**	<0.000260	0.00198	0.0933	0.0266	0.000454 J	0.000772 J	0.00192 J	<0.000398
	RW-4	Jun-20			**1.63**		0.000958 J	0.000329 J	**0.0184**	<0.000126	0.00185	0.0727	<0.00100	0.00105	0.00557	0.00375	<0.000190
	RW-5R	Apr-15			**6.42**		**0.298**	0.0558	**2.92**	<0.00260	**1.03**	**2.15**	**0.174**	**0.522**	**2.26**	**1.91**	<0.00400
	RW-5R	Apr-16			**7.39**		**0.437**	**0.100**	**3.48**	<0.00520	**1.20**	**1.64**	**0.205**	**0.570**	**2.51**	**2.25**	**<0.00796**
	RW-6	Apr-15			**11.4**		**0.134**	0.0280	**0.636**	<0.00260	0.0476	**2.27**	**0.0602**	0.0558	0.0126 J	0.158	<0.00400
	RW-6R	Apr-16			**4.20**		0.00555	0.00111	**0.218**	<0.000260	0.00474	**2.68**	0.00574	0.00275	0.00683	0.00747	<0.000398
	RW-6	Apr-18			**3.04**		0.0143	0.00259	**2.67**	<0.000260	0.0838	<0.000367	0.0290	0.0570	0.448	0.150	<0.000398
	RW-6	Apr-19			**3.23**		0.0110 J	<0.00774	**1.18**	<0.00520	0.0487	**0.792**	**0.0678 J**	0.00804 J	0.0211	0.0304 J	**<0.00796**
	RW-15C	Apr-17			**9.74**		**1.46**	**0.231**	**19.1**	<0.00650	**4.19**	**4.25**	**0.383**	**0.472**	0.172	**5.39**	**<0.00995**
	RW-15C	Apr-18			**9.27**		**1.06**	**0.138**	**21.9**	<0.000260	**3.93**	**3.02**	**<0.500**	0.0285	0.111	**3.01**	<0.000398
	RW-15C	Apr-19			**11.7**		**0.728**	0.0476	<0.00331	<0.00260	**3.03**	**3.66**	**0.173 J4**	0.00812 J	0.0871	**1.05**	<0.00398
South RO Field	MW-114	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-114	Oct-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-114	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-114	Oct-19		**0.0705 JB**	0.0374 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-114	Jun-20		**<0.0314**	**0.436**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00475	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-114	Oct-20		**<0.0314**	**0.663**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.0112	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-115	Apr-18		**<0.0314**	0.0341 JB		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-115	Oct-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-115	Apr-19		**<0.0314**	0.0376 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-115	Oct-19		**0.0733 JB**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-115	Jun-20		**<0.0314**	0.0430 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00126	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-115	Oct-20		**<0.0314**	**0.222 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00364	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-116	Apr-18		**<0.0314**	0.0353 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-116	Oct-18		**<0.0314**	0.0468 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-116	Apr-19		**0.0383 JB**	**0.172**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-116	Oct-19		**0.118 B**	**0.123**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412 J4	<0.00106	<0.000398
	MW-116	Jun-20		**<0.0314**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-116	Oct-20		**<0.0314**	**0.127 B**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
TEL	MW-49	Apr-18		**4.42**	**4.48**		**0.0861**	0.0151	**0.542**	<0.00260	0.0135	**0.113**	0.0159 J	<0.00341	0.00637 J	0.133	<0.00398
	MW-49	Oct-18		**2.99**	**4.24**		**0.0921**	0.0159	**0.451**	<0.00130	0.0143	**0.124**	0.00585 JJ4	0.00182 J	0.00918	0.132	<0.00199
	MW-49	Apr-19		**4.03**	**8.93**		**0.0784**	0.0112	**0.400**	<0.00130	0.0137	**0.139**	0.0165 J	0.00242 J	0.00550	0.114	<0.00199
	MW-49	Oct-19		**5.13 B**	**6.47**		**0.0794**	0.0155	**0.576**	<0.00130	0.0175	**0.160**	0.0132 J	0.00243 J	0.00941	0.122	<0.00199
	MW-49	Jun-20		**5.45**	**4.96**		**0.115**	0.0214	**0.600**	<0.00252	0.0249	**0.148**	0.0241 J	<0.00348	0.00895 J	0.179	<0.00380
	MW-49	Oct-20		**5.05**	**5.44**		**0.0763**	0.0154 J	**0.404**	<0.00252	0.0121 J	**0.196**	<0.0200	<0.00348	<0.00556	0.113	<0.00380
	TEL-1	Apr-18		**0.415**	**8.29**		0.000848 J	<0.000387	<0.000331	<0.000260	0.000482 J	0.00337	<0.00100	0.00136	0.000872 J	0.00223 J	<0.000398
	TEL-1	Oct-18		**0.381**	**8.36**		<0.00186	<0.00194	<0.00166	<0.00130	<0.00192	0.00255 J	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	TEL-1	Apr-19		**0.357**	**8.30**		0.000820 J	<0.000387	<0.000331	<0.000260	0.000481 J	0.00297	<0.00100	0.00126	0.000600 J	0.00126 J	<0.000398
	TEL-1	Oct-19		**0.736 JB**	**8.74**		0.00140	<0.000387	<0.000331	<0.000260	0.000750 J	0.00310	<0.00100	0.00196	0.000961 J	0.00284 J	<0.000398
	TEL-1	Jun-20		**0.366 J**	**5.74**		0.00114	0.000302 J	<0.0000941	<0.000126	0.000831 J	0.00230	<0.00100	0.00155	0.000961 J	0.00294 J	<0.000190
	TEL-2	Apr-18		**3.84**	**16.7**		**0.0855**	0.00503 J	**0.619**	<0.00260	<0.00384	0.00795 J	<0.0100	<0.00341	0.0134	0.0962	<0.00398
	TEL-2	Oct-18		**5.19**	**14.8**		**0.115**	0.0165 J	**0.936**	<0.00650	0.0121 J	<0.00918	<0.0250	<0.00852	0.0209 J	0.123	**<0.00995**
	TEL-2	Apr-19		**4.27**	**15.8**		**0.0639**	0.00655 J	**1.08**	<0.00260	0.00401 J	0.00752 J	<0.0100	<0.00341	0.0113	0.0843	<0.00398
	TEL-2	Oct-19		**3.00 B**	**13.5**		**0.0603**	0.00551 J	**0.618**	<0.00260	0.00384 J	0.00496 J	<0.0100	<0.00341	0.00920 J	0.0638	<0.00398
	TEL-2	Jun-20		**1.89**	**8.16**		0.0402	0.00377 J	**0.362**	<0.00126	0.00152 J	0.00459 J	<0.0100	<0.00174	0.00510 J	0.0489	<0.00190
	TEL-3	Apr-18		**2.05**	**7.42**		0.0200	0.000983 J	**0.392**	<0.000260	0.00162	0.0637	<0.00100	0.00313	0.00394	0.0219	<0.000398
	TEL-3	Apr-19		**0.999**	**4.14**		0.0226	<0.000387	**0.162**	<0.000260	0.000779 J	0.00433	<0.00100	0.00165	0.00166	0.00882	<0.000398
	TEL-3	Oct-19		**1.54 B**	**4.82**		0.0379	<0.000387	**0.0573**	<0.000260	0.000766 J	0.00175	0.00119 J	0.00191	0.00150	0.0142	<0.000398
	TEL-3	Oct-20		**2.28**	**6.36**		**0.0659**	0.00147	**0.182**	<0.000126	0.00262	0.00419	0.00365 J	0.00640	0.00449	0.0505	<0.000190 J4
	TEL-4	Apr-18		**1.32**	**3.99**		0.00454	<0.000387	**0.0415**	<0.000260	<0.000384	0.0670	<0.00100	<0.000341	0.00124	0.00408	<0.000398
	TEL-4	Apr-18	FD	**1.16**	**4.24**		0.00438	<0.000387	**0.0405**	<0.000260	<0.000384	0.0671	<0.00100	<0.000341	0.00126	0.00401	<0.000398
	TEL-4	Oct-18		**0.815**	**1.15**		0.00321	<0.000387	0.00285	<0.000260	<0.000384	0.00101	<0.00100	<0.000341	<0.000412	0.00185 J	<0.000398
	TEL-4	Oct-18	FD	**0.737**	**1.18**		0.00395	<0.000387	0.00289	<0.000260	<0.000384	0.000874 J	<0.00100	<0.000341	<0.000412	0.00221 J	<0.000398
	TEL-4	Apr-19		**0.625**	**1.27**		0.00105	<0.000387	0.00190	<0.000260	<0.000384	0.00115	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	TEL-4	Apr-19	FD	**0.664**	**1.31**		0.00105	<0.000387	0.00193	<0.000260	<0.000384	0.00122	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	TEL-4	Oct-19		**0.919 B**	**4.16**		<0.00187	<0.00194	**0.0913**	<0.00130	<0.00192	0.0381	<0.00500	<0.00170	<0.00206	<0.00530	<0.00199
	TEL-4	Oct-19	FD	**1.34 B**	**4.31**		0.000713 J	<0.000387	**0.0955**	<0.000260	<0.000384	0.0425	<0.00100	<0.000341	0.000648 J	0.00125 J	<0.000398
	TEL-4	Jun-20		**0.456 J**	**5.73**		<0.00161	<0.000520	**0.00721**	<0.000630	<0.000685	0.0431	<0.00500	<0.000870	<0.00139	<0.000870	<0.000950
	TEL-4	Jun-20	FD	**0.976 J**	**5.68**		0.000866 J	<0.000104	**0.00759**	<0.000126	0.000453 J	0.0438	<0.00100	0.000275 J	0.000640 J	0.00211 J	<0.000190
	TEL-4	Oct-20		**0.837 J**	**5.91**		<0.00161	<0.000520	0.00154 J	<0.000630	<0.000685	0.0898	<0.00500	<0.000870	<0.00139	<0.000870	<0.000950
	TEL-4	Oct-20	FD	**1.07**	**6.12**		<0.000322	<0.000104	0.00133	<0.000126	0.000370 J	0.0891	<0.00100	0.000209 J	0.000395 J	0.00117 J	<0.000190
Three Mile Ditch	MW-8	Apr-17		**0.585**	**0.238**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.00228	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-8	Apr-18		**0.0561 J**	**0.112**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0388	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-8	Apr-19		**0.127 B**	**0.0861 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0750	<0.00100 J3J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-8	Jun-20		**0.300**	0.0458 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	**0.149**	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-16	Apr-17			**0.275**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-16	Apr-18			**0.189**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-16	Apr-19			**0.156**		<0.000373	<0.000387 J4	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-16	Jun-20			**0.120**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-20	Apr-17			**0.280**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-20	Apr-18			0.0810 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-20	Apr-19			0.0561 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J3J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-20	Jun-20			<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-21	Apr-18		**0.0452 J**	0.0542 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0382	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-21	Oct-18		**0.0645 J**	**0.0958 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0695	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-21	Apr-19		**0.149 B**	**0.184**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.101**	<0.00100 J3J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-21	Oct-19		**0.229 B**	0.0847 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.217**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-21	Jun-20		**0.284**	**0.149**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	**0.128**	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-21	Oct-20		**0.492**	**0.163**		<0.00161	<0.000520	<0.000471	<0.000630	<0.000685	**0.243**	<0.00500	<0.000870	<0.00139	<0.000870	<0.000950
	MW-25	Apr-17			**0.107**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100 J4	<0.000341	<0.000412	<0.00106	<0.000398
	MW-25	Apr-18			0.0327 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-25	Apr-19			0.0401 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-25	Jun-20			<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-26	Apr-17			0.0773 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-26	Apr-18			0.0492 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-26	Apr-19			0.0502 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-26	Jun-20			0.0276 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-27	Apr-17			**0.0992 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-27	Apr-18			0.0537 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-27	Apr-19			0.0517 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-27	Jun-20			<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190
	MW-46R	Apr-18			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-46R	Oct-18			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-46R	Apr-19			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-46R	Oct-19			0.0677 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-46R	Jun-20			0.0408 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-46R	Oct-20			**0.111**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190
	MW-68	Apr-17			**0.138**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-68	Apr-18			0.0508 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-68	Apr-19			0.0267 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398
	MW-68	Jun-20			0.0250 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190

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Table 4A - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons and Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	TPH			Volatile Organic Compounds										
				Analyte	GRO	DRO	DRO - EP	1,2,4-TMB	1,3,5-TMB	Benzene	cis-1,2-DCE	Ethylbenzene	MTBE	Naphthalene	o-Xylene	Toluene	Total Xylenes	TCE
				CAS	TPH-GRO	TPH-DRO	TPH-DRO	95-63-6	108-67-8	71-43-2	156-59-2	100-41-4	1634-04-4	91-20-3	95-47-6	108-88-3	1330-20-7	79-01-6
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0101	0.0858	0.0167	0.0560	0.0600	0.00500	0.0700	0.700	0.100	0.0300	0.193	1.00	0.620	0.00500
				CGWSL Source	NMED TPH			USEPA TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC Dom	WQCC HH	WQCC TW	WQCC HH	WQCC HH	WQCC HH
Area	Well ID	Date	Dup															
Three Mile Ditch	MW-71	Apr-17			**0.0947 J**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-71	Apr-18			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-71	Apr-19			<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-71	Jun-20			0.0323 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	0.00152	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190	
	MW-89	Apr-17			**2.15**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-89	Apr-18			**0.403**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	0.000421 J	<0.000412	<0.00106	<0.000398	
	MW-89	Apr-19			**0.611**		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	MW-89	Jun-20			**0.218**		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100 J4	0.000664 J	<0.000278	0.000664 J	<0.000190	
	NP-1	Apr-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.132**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-1	Oct-18					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.547**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-1	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0484	<0.00100 J3J4	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-1	Oct-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	**0.149**	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-1	Jun-20					<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	**0.216**	<0.00100 J4	<0.000174	<0.000278	<0.000174	<0.000190	
	NP-1	Oct-20					0.000430 J	0.000104 J	<0.0000941	<0.000126	0.000245 J	**0.217**	<0.00100	<0.000174	<0.000278	0.000456 J	<0.000950	
	NP-6	Apr-13					<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	
	NP-6	Apr-15					<0.000370	<0.000390	<0.000330	<0.000260	<0.000380	0.00878	<0.00100 UJ	<0.000340	<0.000780	<0.00110	<0.000400	
	NP-6	Apr-17					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0353	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	NP-6	Apr-19					<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	0.0729	<0.00100 J3J4	<0.000341	<0.000412	<0.00106	<0.000398	
Upgradient	UG-1	Apr-17		**<0.0314**	0.0484 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-1	Apr-18		**<0.0314**	0.0723 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-1	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-1	Jun-20		**<0.0314**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	
	UG-2	Apr-17		**<0.0314**	0.0818 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-2	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-2	Apr-19		**<0.0314**	0.0647 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-2	Jun-20		**<0.0314**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	
	UG-3R	Apr-17		**<0.0314**	0.0517 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-3R	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-3R	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-3R	Jun-20		**0.0421 J**	0.0478 J		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	
	UG-4	Apr-17		**<0.0314**	0.0463 J		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-4	Apr-18		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-4	Apr-19		**<0.0314**	<0.0247		<0.000373	<0.000387	<0.000331	<0.000260	<0.000384	<0.000367	<0.00100	<0.000341	<0.000412	<0.00106	<0.000398	
	UG-4	Jun-20		**<0.0314**	<0.0247		<0.000322	<0.000104	<0.0000941	<0.000126	<0.000137	<0.000101	<0.00100	<0.000174	<0.000278	<0.000174	<0.000190 J4	

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.

Abbreviations

1,2,4-TMB	1,2,4-Trimethylbenzene
1,3,5-TMB	1,3,5-Trimethylbenzene
CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
cis-1,2-DCE	cis-1,2-Dichloroethene
DRO	Diesel Range Organics
DRO-EP	Diesel Range Organics data from wells located in the Evaporation Ponds area
Dup	Duplicate sample
FD	Field duplicate sample
GRO	Gasoline Range Organics
mg/L	Milligrams per Liter
MTBE	Methyl Tert-Butyl Ether
NMED TPH	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table 6-4 TPH Groundwater Screening Level
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1 Tap Water Screening Level
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
USEPA TW	United States Environmental Protection Agency Tap Water Screening Level, "Regional Screening Levels (RSL) Summary Table", November 2020
WQCC Dom	NMED Groundwater standard for domestic water supply, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q	Sample was prepared and/or analyzed past recommended holding time.
V3	Internal standard exhibited poor recovery due to sample matrix interference; analytical result biased high.

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQC HH	NMED TW
Area	Well ID	Date	Dup															
Cross-Gradient	KWB-13	Apr-17		0.00286	0.0229	0.294	<0.000160	0.000487 J	0.00148 J	**1.02**	0.00107 J	0.0234	<0.0000490	0.00119 J	0.0130	0.0227	0.0213
	KWB-13	Apr-18		0.00395	0.0325	0.343	<0.000160	0.000953 J	0.00437 B	**3.01**	0.00292	0.0490	0.0000726 JB	0.00296	0.0131	0.0249	0.0261
	KWB-13	Apr-19		0.00485	0.0372	0.376	0.000325 J	0.00113 J	0.00514 B	**2.18**	0.00472	0.0829	<0.0000490	0.00325	0.0151	0.0250	0.0308
	KWB-13	Jun-20		0.00587	0.0485	0.306	<0.000478	0.00163 J	0.00721	**4.41**	0.00654	0.113	<0.000100	0.0110	0.0103	0.0260	0.0327
	MW-136	Apr-18		0.00245	0.0104	0.657	<0.000160	<0.000260	0.00403 B	0.0368 JB	<0.000240	0.00375 J	0.0000593 JB	0.00193 J	0.00759	**0.0675**	0.0163
	MW-136	Oct-18		0.00258 J	0.0115	0.697	<0.000160	<0.000520	<0.00108	0.0379 J	<0.000480	0.00900 JB	0.000168 J	0.00180 J	0.00759	**0.0688**	0.0176
	MW-136	Apr-19		0.00283	0.0153	0.699	<0.000160	0.000319 J	0.000696 J	0.163	0.000319 J	0.0206	<0.0000490	0.00143 J	0.00503	**0.0729**	0.0169
	MW-136	Oct-19		0.00256	0.0121	0.663	<0.000160	<0.000260	<0.000540	0.0670 J	0.000261 J	0.0127	0.0000659 JB	0.00108 J	0.00581	**0.0599**	0.0184
	MW-136	Jun-20		0.00245	0.0147 J	0.571	<0.000478	0.000685 J	<0.00149	0.171	<0.00249	0.0352	<0.000100	0.00183 J	0.00593	**0.0639**	0.0161
	MW-136	Oct-20		0.00247	0.0123 J	0.556	<0.000478	<0.000477	<0.00149	0.0705 J	<0.00249	0.0123 B	<0.000100	0.00248	0.00553	**0.0558**	0.0158
	NP-5	Apr-13		<0.0100	<0.0100				<0.0100	<0.400	<0.0100	<0.0100			0.0135		
	NP-5	Apr-15		0.00288	0.0159				0.00109 J	0.437	0.000415 J	0.00318 J			0.0125		
	NP-5	Apr-17		0.00305	0.00938				<0.000540	0.0632 J	<0.000240	0.000586 J			0.0124		
	NP-5	Apr-19		0.00313	0.00844				<0.000540	0.0278 J	0.000709 J	0.000563 J			0.0119		
	RA-3156	Apr-17															
	RA-3156	Apr-18															
	RA-3156	Apr-19															
	RA-3156	Jun-20															
Evaporation Ponds	MW-1R	Apr-17		0.00221	0.0258				<0.000540	**4.50**	<0.000240	**2.38**			<0.000380		
	MW-1R	Apr-18		0.00180 J	0.0224				<0.000540	**3.42**	0.000344 J	**1.71**			0.000380 J		
	MW-1R	Apr-19		0.00176 J	0.0213				<0.000540	**2.17**	<0.000240	**0.995**			<0.000380		
	MW-1R	Jun-20		0.00119 J	0.0219				<0.00149	**1.87**	<0.00249	**1.30**			<0.000657		
	MW-2A	Apr-18		0.00931	0.0225				0.000609 JB	**2.94**	<0.000240	**1.28**			0.00199 J		
	MW-2A	Oct-18		0.00892	0.0314				0.000784 J	0.617	<0.000240	**1.24**			0.000828 J		
	MW-2A	Apr-19		0.00824	0.0214				0.00139 J	**2.14**	0.000266 JB	**1.03**			0.00175 J		
	MW-2A	Oct-19		0.00661	0.0315				<0.000540	0.109	<0.000240	**1.10**			0.00186 J		
	MW-2A	Jun-20		**0.0140**	0.0200				<0.00149	**2.78**	<0.00249	**1.74**			<0.000657		
	MW-2A	Oct-20		0.00798	0.0148 J				<0.00149	0.700	<0.00249	**0.491 V**			0.000658 J		
	MW-3	Apr-18		**0.0291**	0.0143				0.00246	0.472 B	0.000534 J	**0.694**			0.00605		
	MW-3	Apr-18	FD	**0.0281**	0.0159				0.00326	0.418	0.000369 JB	**0.686**			0.00725		
	MW-3	Oct-18		**0.0254**	0.0151				<0.000540	0.0441 J	0.000448 JB	**0.869**			0.00889		
	MW-3	Oct-18	FD	**0.0279**	0.0169				<0.000540	0.0176 J	0.000706 JB	**0.983**			0.00932		
	MW-3	Apr-19		**0.0238**	0.0128				0.00140 J	0.0281 J	<0.000240	**0.462**			0.0143		
	MW-3	Apr-19	FD	**0.0224**	0.0128				0.00172 J	0.0281 J	0.000432 J	**0.491**			0.0131		
	MW-3	Oct-19		**0.0976**	0.0151				0.000655 J	**3.73**	0.000341 J	**1.72**			0.00316		
	MW-3	Oct-19	FD	**0.101**	0.0154				0.000666 J	**3.79**	0.000337 J	**1.73**			0.00323		
	MW-3	Jun-20		**0.0278**	0.0125 J				<0.00149	<0.0489	<0.00249	**0.880**			0.00995		
	MW-3	Jun-20	FD	**0.0299**	0.0152 J				<0.00149	<0.0489	<0.00249	**0.913**			0.0100		
	MW-3	Oct-20		**0.0340**	0.0142 J				<0.00149	0.0772 J	<0.00249	**1.27**			0.00722		
	MW-3	Oct-20	FD	**0.0343**	0.0150 J				<0.00149	0.0500 J	<0.00249	**1.38**			0.00646		
	MW-4A	Apr-18		**0.105**	0.0125				0.00444	**9.18**	0.00119 J	**1.93**			0.000515 J		
	MW-4A	Oct-18		**0.183**	0.0122 J				<0.000540	**1.34**	<0.00120	**1.77**			0.000579 J		
	MW-4A	Apr-19		**0.132**	0.0121				0.000785 J	**1.67**	0.000346 JB	**1.82**			0.000731 J		
	MW-4A	Oct-19		**0.0758**	0.0131				0.000785 J	**1.88**	<0.000240	**2.01**			<0.000380		
	MW-4A	Jun-20		**0.111**	0.0125 J				<0.00149	**2.55**	<0.00249	**1.79**			<0.000657		
	MW-4A	Oct-20		**0.114**	0.0133 J				0.00183 J	**1.73**	<0.00249	**1.74**			<0.000657		
	MW-4B	Apr-13		**0.0371**	<0.0250				<0.0250	<1.00	**<0.0250**	**1.30**			<0.0250		
	MW-4B	Apr-15		**0.101**	0.0349				<0.00110	**3.60**	0.00189 J	**8.68**			<0.000760		
	MW-4B	Apr-17		**0.0371**	0.0182				<0.000540	**3.42**	<0.000240	**7.35**			<0.000380		
	MW-4B	Apr-19		**0.0699**	0.0165				0.000725 J	**1.54**	0.000544 JB	**11.1**			<0.000380		
	MW-5A	Apr-18		**0.187**	0.0124				<0.000540	**8.07**	0.000629 J	**1.15**			0.00121 J		
	MW-5A	Oct-18		**0.196**	0.0137 J				<0.000540	**6.17**	<0.00120	**0.946**			0.00100 J		
	MW-5A	Apr-19		**0.0975**	0.0118				0.000668 J	**6.12**	0.000696 JB	**1.45**			0.000997 J		
	MW-5A	Oct-19		**0.0939**	0.0137				0.000572 J	**5.14**	0.000327 J	**1.69**			0.000737 J		
	MW-5A	Jun-20		**0.195**	0.0153 J				0.00159 J	**3.57**	<0.00249	**0.653**			0.00116 J		
	MW-5A	Oct-20		**0.202**	0.0160 J				<0.00149	**5.02**	<0.00249	**0.848**			0.000974 J		
	MW-5B	Apr-13		**0.122**	<0.0250				<0.0250	<1.00	**<0.0250**	**2.44**			<0.0250		
	MW-5B	Apr-15		**0.201**	0.0112 J				0.00277 J	**6.11**	<0.00120	**3.87**			0.00197 J		
	MW-5B	Apr-17		**0.154**	0.0115				<0.000540	**4.61**	<0.000240	**3.32**			0.00139 J		
	MW-5B	Apr-19		**0.169**	0.0105				0.000773 J	**4.70**	<0.000240	**3.10**			0.00244		
	MW-5C	Apr-13		**0.0139**	0.0166				<0.0100	**1.04**	<0.0100	**0.943**			<0.0100		
	MW-5C	Apr-15		**0.0145**	0.0200 J				<0.00270	**1.15**	<0.00120	**0.975**			<0.00190		
	MW-5C	Apr-17		**0.0113**	0.0237				<0.000540	**1.09**	0.000287 J	**0.918**			<0.000380		
	MW-5C	Apr-19		**0.0114**	0.0127				<0.000540	0.858	0.000611 JB	**0.971**			<0.000380		
	MW-6A	Apr-17		**0.0105**	0.0135				<0.000540	0.193	0.000366 J	**0.385**			0.000910 J		
	MW-6A	Apr-18		0.00960	0.0132				0.00136 JB	0.275 B	0.000553 J	**0.301**			0.000614 J		
	MW-6A	Apr-19		0.00818	0.0127				0.000969 J	0.468	0.000315 JB	**0.304**			0.000599 J		
	MW-6A	Jun-20		0.00491	0.0121 J				<0.00149	0.472	<0.00249	**0.259**			<0.000657		
	MW-6B	Mar-13		**0.0493**	0.0139				<0.00500	**1.54**	<0.00500	**2.39**			<0.00500		
	MW-6B	Mar-13	FD	**0.0537**	0.0163				<0.00500	**1.69**	<0.00500	**2.43**			<0.00500		
	MW-6B	Apr-15		**0.0333**	0.0164				<0.00110	**1.37**	<0.000480	**3.45**			<0.000760		
	MW-6B	Apr-17		**0.0115**	0.0134				<0.000540	0.149	<0.000240	**0.889**			<0.000380		
	MW-6B	Apr-19		**0.0421 O1**	0.0154				<0.000540	**1.48 O1**	0.00132 JB	**2.34 O1V**			0.000416 J		
	MW-7A	Apr-18		**0.0348**	0.0162				0.00319	**5.95**	0.000534 J	**0.483**			0.000393 J		
	MW-7A	Apr-18	FD	**0.0298**	0.0164				0.00109 J	**5.05**	0.000599 J	**0.481**			<0.000380		
	MW-7A	Oct-18		**0.0311**	0.0163 J				0.00129 J	**4.69**	<0.00120	**0.449**			<0.000380		
	MW-7A	Oct-18	FD	**0.0316**	0.0179				0.000814 J	**4.52**	0.000623 JB	**0.480**			0.000485 J		
	MW-7A	Apr-19		**0.0251**	0.0155				<0.000540	**4.21**	0.000377 JB	**0.431**			0.000446 J		
	MW-7A	Apr-19	FD	**0.0266**	0.0164				<0.000540	**4.69**	<0.000240	**0.476**			<0.000380		
	MW-7A	Oct-19		**0.0188**	0.0172				0.00212	0.325	0.000280 J	**0.360 V**			0.00524		
	MW-7A	Oct-19	FD	**0.0193**	0.0183				0.00191 J	0.387	<0.000240	**0.372**			0.00509		
	MW-7A	Jun-20		**0.0158**	0.0135 J				0.00168 J	**1.86**	<0.00249	**0.384**			<0.000657		
	MW-7A	Jun-20	FD	**0.0178**	<0.0389				<0.00745	**2.25**	<0.0124	**0.448**			<0.00328		
	MW-7A	Oct-20		**0.0373**	0.0164 J				0.00394	**4.89**	<0.00249	**0.400**			<0.000657		
	MW-7A	Oct-20	FD	**0.0240**	0.0170 J				0.00266	**2.97**	<0.00249	**0.386**			<0.000657		
	MW-7B	Apr-13		**<0.0250**	<0.0250				<0.0250	<1.00	**<0.0250**	**0.397**			<0.0250		
	MW-7B	Apr-15		0.00588	0.0111				0.000702 J	0.188	<0.000240	**0.580**			<0.000380		
	MW-7B	Apr-17		0.00397	0.0111				<0.000540	0.146	<0.000240	**0.472**			<0.000380		
	MW-7B	Apr-19		0.00400	0.0114				<0.000540	0.0885 J	0.000403 JB	**0.488**			<0.000380		
	MW-10	Apr-18		**0.0161**	0.0188				0.000870 J	0.632	0.00180 J	**2.62**			0.000478 J		
	MW-10	Oct-18		**0.0153**	0.0109 J				<0.000540	0.114	<0.00120	**2.70**			0.000472 J		
	MW-10	Apr-19		**0.0149**	0.0118				0.000749 J	0.136	0.000501 J	**2.63**			0.000838 J		
	MW-10	Oct-19		**0.0184**	0.0219				<0.000540	**1.05**	<0.000240	**2.74**			0.000619 J		
	MW-10	Jun-20		**0.0143**	0.0132 J				<0.00149	0.199	<0.00249	**2.13 V**			<0.000657		
	MW-10	Oct-20		**0.0149**	0.0129 J				<0.00149	0.208	<0.00249	**2.40**			<0.000657		
	MW-11A	Apr-18		0.000457 J	0.0321				0.00104 J	**1.02**	0.00146 JB	**0.294**			<0.000380		
	MW-11A	Oct-18															
	MW-11A	Apr-19		0.000398 J	0.0283				0.0207	0.953	0.000513 J	**0.207**			<0.000380		
	MW-11A	Oct-19															
	MW-11A	Jun-20		<0.000735	0.0294				0.00339	**1.76**	<0.00249	**1.55**			<0.000657		
	MW-11A	Oct-20															
	MW-11B	Mar-13		**<0.0250**	<0.0250				<0.0250	**3.25**	**<0.0250**	**0.316**			<0.0250		
	MW-11B	Apr-15		0.00453 J	0.0189 J				<0.00540	**4.38**	<0.00240	**0.427**			<0.00380		
	MW-11B	Apr-17		0.00420	0.0189				<0.000540	**4.59**	<0.000240	**0.374**			<0.000380		
	MW-11B	Apr-19		0.00336	0.0160				<0.000540	**3.67**	<0.000240	**0.367**			<0.000380		

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-15	Apr-17		**0.0130**	0.0180				<0.000540	0.0239 JB	<0.000240	0.173			0.000518 J			
	MW-15	Apr-18		**0.0165**	0.0225				0.00926	0.0730 J	0.000357 JB	**0.394**			0.00128 J			
	MW-15	Apr-19		**0.0204**	0.0242				<0.000540	0.0520 J	0.000401 J	0.166			0.00101 J			
	MW-15	Jun-20		0.00841	0.0175 J				<0.00149	<0.0489	<0.00249	**0.547**			<0.000657			
	MW-18A	Apr-18		0.00489	0.0173	**2.31**	<0.000160	0.00108 J	0.00488	0.148	<0.000240	**0.533**	<0.0000490	0.00947	0.00120 J	**0.0314**	0.000459 J	
	MW-18A	Oct-18		0.00475	0.0160 J	**2.34**	<0.000800	0.000525 J	<0.000540	0.436	<0.00120	**1.73**	0.000145 J	0.00828	<0.000380	0.0243 J	0.000400 J	
	MW-18A	Apr-19		0.00549	0.0172	**2.14**	<0.000160	0.00141 J	<0.000540	0.0468 J	0.000249 J	**0.375**	<0.0000490	0.0109	0.000716 J	**0.0379**	0.000813 J	
	MW-18A	Oct-19		0.00524	0.0163	**2.19**	<0.000160	0.000751 J	<0.000540	0.786	0.000355 J	**1.73**	<0.0000490	0.00798	0.000613 J	0.0271	0.00120 JB	
	MW-18A	Jun-20		0.00419 J	<0.0389 J5	**1.88**	<0.00239	<0.00238	<0.00745	**1.65**	<0.0124	**1.13** O1V	<0.000100	0.00735 J	<0.00328	**<0.0377** J5	<0.00493	
	MW-18A	Oct-20		0.00468	0.0171 J	**1.98**	<0.000478	0.00139 J	<0.00149	0.348	<0.00249	**1.39**	<0.000100	0.00846	<0.000657	0.0226	<0.000986	
	MW-18B	Apr-13		<0.0100	0.0126				<0.0100	<0.400	<0.0100	**0.572**			<0.0100			
	MW-18B	Apr-15		**0.0120**	0.0125				0.000942 J	0.139	0.000814 J	**0.789**			<0.000380			
	MW-18B	Apr-17		0.00883	0.0137				<0.000540	0.0793 J	0.00104 J	**0.803**			<0.000380			
	MW-18B	Apr-19		**0.0115**	0.0168				<0.000540	0.138	0.000778 J	**1.26**			<0.000380			
	MW-22A	Apr-18		**0.0386**	0.0170				0.00141 J	**4.16**	0.00101 J	**6.12**			0.000962 J			
	MW-22A	Apr-18	FD	**0.0371**	0.0165				<0.000540	**3.68**	<0.000240	**6.18**			0.000839 J			
	MW-22A	Oct-18		**0.0463**	0.0156 J				<0.000540	**5.81**	<0.00120	**5.71**			0.000677 J			
	MW-22A	Oct-18	FD	**0.0496**	0.0173				<0.000540	**5.73**	0.000489 JB	**6.14**			0.000707 J			
	MW-22A	Apr-19		**0.0355**	0.0149				0.00184 J	**2.29**	0.000242 J	**5.39**			0.00137 J			
	MW-22A	Apr-19	FD	**0.0333**	0.0152				0.00110 J	**2.25**	<0.000240	**5.54**			0.00101 J			
	MW-22A	Oct-19		**0.0263**	0.0315				<0.000540	0.769	0.000240 J	**1.46**			0.00842			
	MW-22A	Oct-19	FD	**0.0256**	0.0318				<0.000540	0.718	0.000294 J	**1.46**			0.00798			
	MW-22A	Jun-20		**0.0299**	0.0168 J				<0.00149	**2.21**	<0.00249	**2.94**			0.00271			
	MW-22A	Jun-20	FD	**0.0311**	0.0177 J				<0.00149	**1.77**	<0.00249	**3.10**			0.00171 J			
	MW-22A	Oct-20		**0.0309**	0.0163 J				<0.00149	**3.96**	<0.00249	**3.57**			0.00147 J			
	MW-22A	Oct-20	FD	**0.0301**	0.0165 J				<0.00149	**4.02**	<0.00249	**3.69**			0.00132 J			
	MW-22B	Apr-13		**0.0343**	<0.0250				<0.0250	**1.78**	**<0.0250**	**3.37**			<0.0250			
	MW-22B	Apr-15		**0.0389**	0.0160 J				<0.00270	**2.32**	0.00134 J	**4.32**			<0.00190			
	MW-22B	Apr-17		**0.0255**	0.0116				<0.000540	**1.03**	0.000313 J	**3.35**			0.000603 J			
	MW-22B	Apr-19		**0.0316**	0.0134				0.00173 J	**1.99**	<0.000240	**4.31**			0.000766 J			
	MW-70	Apr-18		**0.0508**	0.0212				<0.000540	**46.3**	0.000270 JB	**0.425**			0.000479 J			
	MW-70	Oct-18		**0.0186**	0.0161				<0.000540	**4.49**	0.000490 JB	**0.270**			<0.000380			
	MW-70	Apr-19		**0.0191**	0.0173				<0.000540	**1.23**	0.000601 J	**0.508**			<0.000380			
	MW-70	Oct-19		**0.0177**	0.0151				<0.000540	**3.92**	<0.000240	**0.369**			<0.000380			
	MW-70	Jun-20		**0.0157**	0.0156 J				<0.00149	**4.07**	<0.00249	**0.257**			<0.000657			
	MW-70	Oct-20		**0.0166**	0.0171 J				<0.00149	**4.50**	<0.00249	**0.299**			<0.000657			
	MW-72	Apr-17		**0.0164**	0.0213				<0.000540	**1.62**	<0.000240	**3.88**			0.00210			
	MW-72	Apr-18		**0.0175**	0.0155				0.000688 JB	**2.04**	<0.000240	**3.04**			0.00173 J			
	MW-72	Apr-19		**0.0109**	0.0123				0.000785 J	**1.21**	<0.000240	**1.27**			0.00232			
	MW-72	Jun-20		0.00851	0.0124 J				<0.00149	**1.99**	<0.00249	**1.91**			0.00175 J			
	MW-73	Apr-17		**0.0650**	0.00734				<0.000540	**1.92**	<0.000240	0.187			0.00184 J			
	MW-73	Apr-18		**0.0614**	0.00806				0.00109 JB	0.932	<0.000240	**1.84**			0.00147 J			
	MW-73	Apr-19		**0.0806**	0.0106				0.00152 J	0.315	<0.000240	0.0807			0.00616			
	MW-73	Jun-20		**0.0493**	0.00886 J				0.00186 J	**2.78**	<0.00249	**1.89**			0.00195 J			
	MW-74	Apr-18		**0.0956**	0.0129				0.00199 JB	0.0666 JB	<0.000240	**1.22**			0.0335			
	MW-74	Oct-18		**0.0567**	0.0133				<0.000540	0.0233 J	0.000376 J	**0.926**			**0.227**			
	MW-74	Apr-19		**0.0613**	0.0118				0.000701 J	<0.0150	<0.000240	**1.59**			**0.0893**			
	MW-74	Oct-19		**0.0885**	0.0185				0.000980 J	**1.09**	0.000594 J	**1.94**			0.0133			
	MW-74	Jun-20		**0.0552**	0.0160 J				0.00165 J	0.325	<0.00249	**1.13**			**0.151**			
	MW-74	Oct-20		**0.0779**	0.0153 J				<0.00149	0.0779 J	0.00433 J	**1.39**			0.0354			
	MW-75	Apr-18		**0.104**	0.0167				0.00325	0.523	0.000500 J	**0.877**			0.00178 J			
	MW-75	Oct-18		**0.312**	0.0149				0.000998 J	**5.50**	0.000372 J	**0.884**			0.00187 J			
	MW-75	Apr-19		**0.110**	0.0183				0.00549	0.464	0.000549 J	**0.931**			0.00388			
	MW-75	Oct-19		**0.246**	0.0135				0.00116 J	**4.16**	<0.000240	**1.13**			0.00228			
	MW-75	Jun-20		**0.270**	0.0149 J				0.00163 J	**4.58**	<0.00249	**1.13**			0.00228			
	MW-75	Oct-20		**0.320**	0.0146 J				0.00240	**5.28**	<0.00249	**0.885**			0.00271			
	MW-76	Apr-18		**0.0549**	0.0166				0.00166 JB	**3.51**	<0.000240	**0.688**			0.00321			
	MW-76	Oct-18		**0.0718**	0.0714				0.00888	**7.39**	0.00261 JB	**0.737**			0.00404			
	MW-76	Apr-19		**0.0519**	0.0116				0.00249	**3.42**	<0.000240	**0.640**			0.00338			
	MW-76	Oct-19		**0.0553**	0.0138				0.00157 J	**5.26**	<0.000240	**1.17**			0.00403			
	MW-76	Jun-20		**0.0378**	0.0121 J				0.00180 J	**3.52**	<0.00249	**0.737**			0.00379			
	MW-76	Oct-20		**0.0401**	0.0127 J				0.00176 J	**3.36**	<0.00249	**0.682**			0.00228			
	MW-77	Apr-17		**0.0466**	0.0100				0.00752	**7.88**	<0.000240	**0.521**			0.0106			
	MW-77	Apr-18		**0.0431**	0.00992				0.00946	**5.64**	0.000745 J	**0.540**			0.00983			
	MW-77	Apr-19		**0.0406**	0.00936				0.0113	**9.12**	0.000342 J	**0.551**			0.0125			
	MW-77	Jun-20		**0.0416**	0.0107 J				0.00879	**8.79**	<0.00249	**0.576**			0.00835			
	MW-78	Apr-17		0.00820	0.0388				0.0422	0.469	<0.000240	**0.435**			0.00957			
	MW-78	Apr-18		0.0100	0.0459				**0.142**	0.185 B	0.000249 J	0.198			0.0119			
	MW-78	Apr-19		0.00686	0.0506				**0.248**	0.175	0.000454 J	0.0582			0.0185			
	MW-78	Jun-20		**0.0237**	0.0498				**0.126**	**6.51**	<0.00249	**0.735**			0.00764			
	MW-79	Apr-18		0.00536	0.0160				0.000558 JB	0.0528 JB	<0.000240	**0.227**			0.000902 J			
	MW-79	Oct-18		0.00332	0.0179				<0.000540	0.114	<0.000240	**2.69**			0.000411 J			
	MW-79	Apr-19		0.00562	0.0165				0.00117 J	0.0595 J	<0.000240	**0.443**			0.00174 J			
	MW-79	Oct-19		0.00670	0.0190				<0.000540	**5.43**	<0.000240	**5.54**			0.000432 J			
	MW-79	Jun-20		0.00291	0.0154 J				<0.00149	0.998	<0.00249	**4.60**			<0.000657			
	MW-79	Oct-20		0.00397	0.0158 J				<0.00149	**1.95**	<0.00249	**4.98**			<0.000657			
	MW-80	Apr-17		0.00643	0.0173				0.00138 J	0.160	<0.000240	**0.598**			0.00218			
	MW-80	Apr-18		0.00302	0.0110				0.00109 JB	0.139 B	<0.000240	0.129			0.00111 J			
	MW-80	Apr-19		0.00215	0.0139				**0.0511**	0.176	<0.000240	0.180			0.000866 J			
	MW-80	Jun-20		0.00174 J	0.0137 J				<0.00149	0.276	<0.00249	**1.47**			<0.000657			
	MW-81	Apr-17		**0.0157**	0.0144				<0.000540	<0.0150	0.000248 J	0.0117			0.0182			
	MW-81	Apr-18		0.00875	0.0154				0.000676 JB	<0.0150	0.000245 J	0.0200			0.00666			
	MW-81	Apr-19		0.00687	0.0132				0.00109 J	<0.0150	0.000324 J	0.0379 O1			0.00488			
	MW-81	Jun-20		0.00402	0.0110 J				<0.00149	<0.0489	<0.00249	**0.506**			0.00331			
	MW-82	Apr-17		**0.0468**	0.0273				0.00182 J	0.792	0.000744 J	**2.02**			0.00137 J			
	MW-82	Apr-18		**0.0297**	0.0260				0.00125 J	0.0904 JB	0.000271 J	**2.00**			0.00146 J			
	MW-82	Apr-19		**0.0282**	0.0234				0.00139 J	0.0888 J	0.000348 J	**1.86**			0.00186 J			
	MW-82	Jun-20		**0.0964**	0.0235				0.00215	**4.11**	<0.00249	**2.22**			0.00109 J			
	MW-83	Apr-18		**0.0562**	0.0316				0.0137	**4.08**	0.00133 J	**0.342**			0.00218			
	MW-83	Oct-18		**0.0343**	0.0365				0.0477	**7.25**	0.00814	**0.472**			0.0124			
	MW-83	Apr-19		**0.0210**	0.0164				0.00725	0.324	0.00177 JB	**0.443**			0.0125			
	MW-83	Oct-19		**0.0508**	0.0477				0.0185	**7.75**	0.00166 J	**0.859**			0.00699			
	MW-83	Jun-20		**0.0378**	0.0246				0.00317	0.151	<0.00249	**0.332**			0.0101			
	MW-83	Oct-20		**0.0321**	0.0276				0.0189	**6.79**	<0.00249	**0.258**			0.00298			
	MW-84	Apr-18		**0.0904**	0.0126				0.00224	**1.30**	<0.000240	**2.66**			0.00438			
	MW-84	Oct-18		**0.150**	0.0135				0.00213	**8.01**	0.000288 J	**2.83**			0.00367			
	MW-84	Apr-19		**0.0809**	0.0131				0.00180 J	0.643	0.000296 JB	**2.50**			0.00480			
	MW-84	Oct-19		**0.143**	0.0127				0.00201	**6.50**	<0.000240	**2.74**			0.00421			
	MW-84	Jun-20		**0.147**	0.0137 J				0.00570	**5.90**	<0.00249	**2.54**			0.00751			
	MW-84	Oct-20		**0.187**	0.0134 J				0.00501	**9.43**	0.00278 J	**3.05**			0.00589			
	MW-86	Jun-20		**0.104**	0.0255	0.626	<0.000478	0.000506 J	**0.0552**	**4.20**	<0.00249	0.158	<0.000100	0.00828	0.00715	<0.00754	0.0220	
	MW-86	Oct-20		**0.0948**	0.0184 J	0.671	<0.000478	<0.000477	0.0388	0.210	0.00356 J	0.170	<0.000100	0.00447	0.00443	<0.00754	0.0209	

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-87	Apr-18		0.00609	0.0145				<0.000540	0.924	0.000262 JB	**0.686**			0.000502 J		
	MW-87	Oct-18		0.00723	0.0168 J				<0.000540	**1.27**	<0.00120	**1.18**			<0.000380		
	MW-87	Apr-19		0.00484	0.0159				<0.000540	0.122	0.000477 J	0.189			<0.000380		
	MW-87	Oct-19		0.00577	0.0176				<0.000540	0.156	0.000308 J	**0.808**			0.000543 J		
	MW-87	Jun-20		0.00424	0.0145 J				0.00174 J	0.0502 J	<0.0124	**2.65**			<0.000657		
	MW-87	Oct-20		0.00783	0.0169 J				<0.00149	0.925	<0.00249	**1.56 V**			<0.000657		
	MW-88	Apr-18		0.00806	0.0112				0.00119 J	0.0352 J	0.000649 J	**0.927 V**			<0.000380		
	MW-88	Oct-18		0.00660	0.0109				<0.000540	0.0233 J	0.000531 JB	**0.881**			<0.000380		
	MW-88	Apr-19		0.00713	0.0109				0.00124 J	0.0221 J	<0.000240	**0.929**			0.000430 J		
	MW-88	Oct-19		0.00643	0.0110				<0.000540	0.0183 J	<0.000240	**0.926**			<0.000380		
	MW-88	Jun-20		0.00559	0.00971 J				<0.00149	0.0546 J	<0.00249	**0.807**			<0.000657		
	MW-88	Oct-20		0.00645	0.0106 J				<0.00149	<0.0489	<0.00249	**0.898**			<0.000657		
	MW-120	Apr-18		**0.0117**	0.0104				<0.000540	**3.78**	<0.000240	**1.24**			0.000466 J		
	MW-120	Oct-18		**0.0118**	0.0126				<0.000540	**4.55 O1**	0.000327 J	**1.35 O1V**			<0.000380		
	MW-120	Apr-19		**0.0141**	0.0112				<0.000540	**5.86**	0.000743 JB	**1.21**			0.000890 J		
	MW-120	Oct-19		0.00935	0.0115				<0.000540	**4.05**	<0.000240	**1.28**			0.000828 J		
	MW-120	Jun-20		0.00614	0.00971 J				<0.00149	**2.94**	<0.00249	**0.973**			<0.000657		
	MW-120	Oct-20		0.00769	0.0109 J				<0.00149	**4.31**	<0.00249	**1.38**			0.000719 J		
	MW-121	Apr-18		**0.0373**	0.0122				<0.000540	0.519	0.000325 J	**2.57**			0.00485		
	MW-121	Oct-18		**0.0350**	0.0123				<0.000540	0.118	0.000425 J	**2.03**			0.00619		
	MW-121	Apr-19		**0.145**	0.0122				<0.000540	**2.10**	0.000348 JB	**2.02**			0.00529		
	MW-121	Oct-19		**0.0387**	0.0126				0.000795 J	0.212	<0.000240	**1.01**			0.00749		
	MW-121	Jun-20		**0.131**	0.0115 J				<0.00149	**2.33**	<0.00249	**2.29**			0.00453		
	MW-121	Oct-20		**0.105**	0.0134 J				0.00380	**1.88**	<0.00249	**2.51**			0.00320		
	MW-122	Apr-18		0.00252	0.0198				0.00136 JB	0.860	<0.000240	**0.763**			<0.000380		
	MW-122	Oct-18		0.00349	0.0197				<0.000540	**3.58**	<0.000240	**1.08**			<0.000380		
	MW-122	Apr-19		0.00196 J	0.0250				0.000767 J	0.833	0.000610 JB	**1.14**			0.000524 J		
	MW-122	Oct-19		0.00452	0.0213				0.000756 J	**5.96**	0.000780 J	**1.09**			<0.000380		
	MW-122	Jun-20		0.00412	0.0194 J				<0.00149	**3.11**	<0.00249	**1.02 V**			0.000840 J		
	MW-122	Oct-20		0.00425	0.0223				<0.00149	**4.97**	<0.00249	**1.01**			<0.000657		
	MW-123	Apr-18		**0.0226**	0.0229				<0.000540	0.0493 J	0.000256 J	**2.77**			<0.000380		
	MW-123	Oct-18		**0.0211**	0.0249 J				<0.000540	0.0298 J	<0.00120	**3.06**			<0.000380		
	MW-123	Apr-19		**0.0202**	0.0235				0.000931 J	0.0411 J	0.000440 J	**2.76**			0.000559 J		
	MW-123	Oct-19		**0.0263**	0.0228				<0.000540	0.647	<0.000240	**2.43 V**			0.000672 J		
	MW-123	Jun-20		**0.0185**	0.0328				<0.00149	0.0870 J	<0.00249	**3.19**			<0.000657		
	MW-123	Oct-20		**0.0195**	0.0317				<0.00149	0.0586 J	<0.00249	**3.23**			<0.000657		
	MW-124	Apr-18		0.00179 J	0.0203				<0.000540	**3.58**	<0.000240	**0.506**			<0.000380		
	MW-124	Oct-18		0.00214	0.0216 O1				<0.000540	**4.05**	0.000355 JB	**0.527**			<0.000380		
	MW-124	Apr-19		0.00175 J	0.0207				<0.000540	**3.87**	<0.000240	**0.535**			<0.000380		
	MW-124	Oct-19		0.00152 J	0.0194				<0.000540	**2.69**	<0.000240	**0.617**			<0.000380		
	MW-124	Jun-20		<0.00368	<0.0389				<0.00745	**6.01**	<0.0124	**0.440**			<0.00328		
	MW-124	Oct-20		0.00195 J	0.0214				<0.00149	**5.78**	<0.00249	**0.435**			<0.000657		
	OCD-1R	Apr-18		0.00396	0.0155				0.00148 J	0.246	<0.000240	**0.306**			0.00143 J		
	OCD-1R	Oct-18		0.00423	0.0198 J				0.00104 J	0.679	<0.00120	**1.47**			0.000628 J		
	OCD-1R	Apr-19		0.00271	0.0172				<0.000540	0.146	0.000336 J	**0.214**			0.00143 J		
	OCD-1R	Oct-19		0.00398	0.0247				0.000914 J	0.646	0.000264 J	**1.75**			0.00268		
	OCD-1R	Jun-20		0.00374	0.0202				<0.00149	**1.19**	<0.00249	**2.06**			<0.000657		
	OCD-1R	Oct-20		0.00318	0.0176 J				0.00201	0.435	<0.00249	**1.03**			0.000844 J		
	OCD-2A	Apr-18		**0.0112**	0.0201				<0.000540	**8.58**	<0.000240	**1.02**			0.000730 J		
	OCD-2A	Oct-18		0.00227	0.0266				<0.000540	**1.60**	0.000247 JB	**0.688**			<0.000380		
	OCD-2A	Apr-19		0.00207	0.0229				0.00138 J	0.860	<0.000240	0.180			<0.000380		
	OCD-2A	Oct-19		0.00146 J	0.0232				<0.000540	0.700	0.000258 J	**0.408**			0.00120 J		
	OCD-2A	Jun-20		0.00147 J	0.0206				<0.00149	**1.85**	<0.00249	**1.32**			<0.000657		
	OCD-2A	Oct-20		0.00376	0.0224				<0.00149	**4.39**	<0.00249	**1.16**			<0.000657		
	OCD-3	Apr-18		0.00258	0.0219				<0.000540	**1.82**	0.000364 JB	**0.412**			<0.000380		
	OCD-3	Oct-18		0.00175 J	0.0184				<0.000540	**1.36**	0.000312 JB	**0.248**			<0.000380		
	OCD-3	Apr-19		0.00117 J	0.0187				0.00115 J	0.401	<0.000240	0.0976			<0.000380		
	OCD-3	Oct-19		0.000962 J	0.0207				<0.000540	0.327	<0.000240	0.178			<0.000380		
	OCD-3	Jun-20		0.000791 J	0.0168 J				<0.00149	0.174	<0.00249	**0.511**			<0.000657		
	OCD-3	Oct-20		0.000998 J	0.0185 J				0.00151 J	0.317	<0.00249	0.199			<0.000657		
	OCD-4	Apr-18		0.00167 J	0.0223				0.00361	**1.15**	<0.000240	0.0438			0.000780 J		
	OCD-4	Oct-18		0.00318	0.0278				0.00118 J	**2.31**	0.000457 JB	**0.323**			<0.000380		
	OCD-4	Apr-19		0.00267	0.0240				0.00158 J	**2.42**	<0.000240	0.185			0.000969 J		
	OCD-4	Oct-19		0.00219	0.0272				<0.000540	**1.22**	<0.000240	**0.299**			<0.000380		
	OCD-4	Jun-20		0.00325	0.0229				<0.00149	**3.26**	<0.00249	**0.300**			<0.000657		
	OCD-4	Oct-20		0.00221	0.0245				<0.00149	**1.95**	<0.00249	**0.218**			<0.000657		
	OCD-5	Apr-18		0.00513	0.0257				<0.000540	**4.65**	<0.000240	0.182			<0.000380		
	OCD-5	Oct-18		0.00753	0.0255				<0.000540	**6.56**	<0.00120	**0.262**			0.000417 J		
	OCD-5	Apr-19		0.00640	0.0222				0.000901 J	**6.05**	0.000447 J	**0.205**			<0.000380		
	OCD-5	Oct-19		**0.0125**	0.0270				<0.000540	**5.39**	<0.000240	**0.367**			<0.000380		
	OCD-5	Jun-20		**0.0146**	0.0256				<0.00149	**8.25**	<0.00249	**0.279**			<0.000657		
	OCD-5	Oct-20		**0.0142**	0.0266				0.00194 J	**7.26**	<0.00249	**0.332**			<0.000657		
	OCD-6	Apr-18		0.00951	0.0203				<0.000540	**2.17**	<0.000240	**2.26**			0.000743 J		
	OCD-6	Oct-18		**0.0125**	0.0262				<0.000540	**6.45**	0.000466 J	**2.35**			<0.000380		
	OCD-6	Apr-19		0.00760	0.0233				0.000693 J	**2.13**	0.000310 JB	**2.27**			0.000644 J		
	OCD-6	Oct-19		0.00620	0.0188				<0.000540	0.397	<0.000240	**1.23**			0.00173 J		
	OCD-6	Jun-20		0.00686	0.0213				<0.00149	**2.80**	<0.00249	**2.28**			<0.000657		
	OCD-6	Oct-20		0.00831	0.0220				<0.00149	**4.53**	<0.00249	**2.54 V**			<0.000657		
	OCD-7AR	Apr-18		**0.110**	0.0133				0.00180 JB	**1.42**	0.000318 J	**2.49**			0.00181 J		
	OCD-7AR	Oct-18		**0.124**	0.0156				<0.000540	**9.57**	0.000362 J	**2.98**			0.00153 J		
	OCD-7AR	Apr-19		**0.0650**	0.0130				0.00123 J	0.583	0.00175 JB	**0.203**			0.00225		
	OCD-7AR	Oct-19		**0.108**	0.0165				0.000615 J	**12.0**	<0.000240	**2.96**			0.00161 J		
	OCD-7AR	Jun-20		**0.0978**	0.0138 J				<0.00149	**9.81**	<0.00249	**2.62**			0.00152 J		
	OCD-7AR	Oct-20		**0.0974**	0.0149 J				<0.00149	**10.4**	<0.00249	**2.63**			0.00159 J		
	OCD-7B	Mar-13		<0.00500	0.0160				<0.00500	<0.200	<0.00500	0.0246			<0.00500		
	OCD-7B	Apr-15		0.00294 J	0.0196 J				<0.00270	**3.52**	<0.00120	**0.710**			<0.00190		
	OCD-7B	Apr-17		0.00194 J	0.0179				<0.000540	**2.73**	<0.000240	**0.621**			<0.000380		
	OCD-7B	Apr-19		0.00184 J	0.0163				0.000918 J	**4.81**	0.000715 JB	**0.564**			<0.000380		
	OCD-8A	Apr-18		**0.0847**	0.0174	**0.770**	<0.000160	0.000833 J	<0.000540	**6.63**	0.000279 J	**3.85**	0.000103 J	0.0234	0.00112 J	0.000801 J	0.000500 J
	OCD-8A	Oct-18		**0.101**	0.0358	**0.853**	<0.000800	0.00489	0.00233	**11.2**	0.00152 JB	**3.52**	0.000139 J	0.0279	0.00141 J	<0.00165	0.00359 J
	OCD-8A	Apr-19		**0.0819**	0.0176	**0.812**	<0.000160	0.00110 J	0.000683 J	**7.45**	0.000252 JB	**3.68**	<0.0000490	0.0199	0.00114 J	0.000772 J	0.000740 J
	OCD-8A	Oct-19		**0.0374**	0.0270	**1.73**	0.000164 J	0.00260	0.00197 J	0.847	<0.00120	**1.20**	<0.0000490	0.0627	0.0313	0.0168 J	0.00218 J
	OCD-8A	Jun-20		**0.0630**	0.0160 J	**0.958**	<0.000478	0.00175 J	0.00323	**4.76**	<0.00249	**1.88**	<0.000100	0.0670	0.00134 J	<0.00754	<0.000986
	OCD-8A	Oct-20		**0.0669**	0.0196 J	**1.08**	<0.000478	0.00192 J	0.00203	**5.36**	<0.00249	**2.42**	<0.000100	0.0384	0.00156 J	<0.00754	0.00105 J
	OCD-8B	Apr-13		**<0.0250**	<0.0250				<0.0250	<1.00	**<0.0250**	**0.417**			<0.0250		
	OCD-8B	Apr-15		**0.0126**	0.0141				0.000872 J	0.239	0.000392 J	**5.98**			0.000525 J		
	OCD-8B	Apr-17		0.00912	0.0124				<0.000540	0.266	0.000256 J	**6.36**			<0.000380		
	OCD-8B	Apr-19		0.0100	0.0135				<0.000540	0.240	0.000392 J	**7.21 V**			0.000541 J		
Field East of Refinery	KWB-1A	Apr-18		0.00344	0.00777	**0.759**	<0.000160	0.00513	<0.000540	<0.0150	0.000342 J	**0.379**	<0.0000490	0.00815	0.000859 J	0.0197	0.0209
	KWB-1A	Oct-18		0.00263 J	0.00840	0.734	<0.000160	0.00583 J	<0.00270	<0.0750	<0.00120	**0.394**	0.000132 J	0.00823 J	<0.00190	0.0153 J	0.0210 J
	KWB-1A	Apr-19		0.00375	0.00849	**0.809**	<0.000160	0.00429	0.00152 JB	<0.0150	0.000374 JB	**0.341**	<0.0000490	0.00761	0.000736 J	0.0199	0.0238
	KWB-1A	Oct-19		0.00353	0.00810	0.749	<0.000160	0.0135	<0.000540	<0.0150	0.000643 JB	**0.498**	0.0000552 JB	0.00727	0.000491 J	0.0156	0.0233
	KWB-1A	Jun-20		0.00334	0.00826 J	0.723	<0.000478	0.00315	<0.00149	<0.0489	<0.00249	**0.305**	<0.000100	0.00630	<0.000657	0.0157 J	0.0230
	KWB-1A	Oct-20		0.00378	0.00798 J	0.712	<0.000478	0.00550	<0.00149	<0.0489	<0.00249	**0.399**	<0.000100	0.00769	<0.000657	0.0128 J	0.0236

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	KWB-1C	Apr-13			<0.0100	0.0146				<0.0100	<0.400	<0.0100	<0.0100			<0.0100		
	KWB-1C	Apr-15			0.00338	0.00918				<0.000540	0.0537 J	0.000320 J	**0.462**			0.000549 J		
	KWB-1C	Apr-17			0.00303	0.00955				<0.000540	<0.0150	<0.000240	**0.501**			<0.000380		
	KWB-1C	Apr-19			0.00347	0.00925				0.00162 JB	0.0269 J	0.000292 JB	**0.482**			<0.000380		
	KWB-7	Oct-17			0.00415	0.0915	0.460	<0.000160	0.00247	0.000670 J	**1.37**	0.000698 J	**3.22**	<0.0000490	0.00875	0.00100 J	0.00142 J	0.00129 J
	KWB-7	Oct-18			0.000371 J	0.0513	0.491	<0.000160	0.000457 J	0.000570 J	0.432	0.000317 J	**2.55**	0.000134 J	0.00144 J	<0.000380	0.00120 J	0.00118 JB
	KWB-7	Jun-20			0.00153 J	0.0692	0.418	<0.000478	<0.000477	<0.00149	0.678	0.00545	**2.57**	<0.000100	0.00133 J	<0.000657	<0.00754	0.00412 J
	KWB-7	Oct-20			<0.00368	0.0528 J	0.439	<0.00239	<0.00238	<0.00745	<0.244	<0.0124	**2.15**	<0.000100	<0.00476	<0.00328	**<0.0377**	<0.00493
	KWB-8	Oct-16			0.00109 J	0.139	0.665	<0.000160	<0.000260	0.000710 JB	0.672	0.00387	**0.997**	<0.0000490 J6	0.00102 JB	0.000475 J	0.000746 J	0.00122 J
	KWB-8	Apr-17			0.00129 J	0.106	0.632	<0.000160	0.000264 J	0.000851 J	**1.07**	0.00495	**1.83**	<0.0000490	0.00120 J	<0.000380	<0.000330	0.00157 J
	KWB-8	Oct-17			0.00135 J	0.130	**0.769**	<0.000160	<0.000260	0.00153 J	0.0804 J	0.00296	**0.510**	<0.0000490	0.000997 J	0.0463	<0.000330	0.00112 J
	KWB-8	Oct-20			0.00348	0.0706	0.661	<0.000478	0.000490 J	0.00626	**1.32**	0.00678	0.0432	<0.000100	0.00306	<0.000657	<0.00754	0.00115 J
	KWB-10R	Apr-17			**0.0157**	**3.82**				<0.000540	**5.21**	0.000971 J	0.157			<0.000380		
	KWB-10R	Oct-17			**0.0170**	**3.85**				<0.000540	**5.24**	0.000996 J	0.163			<0.000380		
	KWB-10R	Apr-18			**0.0169**	**3.91**				<0.000540	**4.57**	0.00320	0.170			<0.000380		
	KWB-10R	Oct-18			**0.0164**	**3.93**				<0.00270	**4.24**	0.00124 J	0.168			<0.00190		
	KWB-11A	Apr-18			**0.0112**	0.0210	0.460	<0.000160	0.00532	<0.000540	0.595	0.00131 J	**0.413**	<0.0000490	0.00463	0.00246	0.0140	0.00760
	KWB-11A	Oct-18			**0.0487**	0.0379	0.423	<0.000160	0.0143	<0.000540	**12.6**	0.00226	**1.98**	0.000140 J	0.00485	0.00182 J	0.0119	0.00855
	KWB-11A	Apr-19			0.00966	0.0450	0.444	<0.000160	0.0108	<0.000540	**3.95**	0.00137 J	**1.05**	<0.0000490	0.0137	0.000527 J	0.0148	0.00424 J
	KWB-11A	Jun-20			**0.0111**	0.0329	0.380	<0.000478	0.00371	<0.00149	**7.33**	0.00307 J	**0.570**	<0.000100	0.00429	0.00104 J	0.0143 J	0.00286 J
	KWB-11A	Oct-20			0.00403	0.0227	0.387	<0.000478	0.00271	<0.00149	**1.05**	<0.00249	**0.471**	<0.000100	0.00413	0.00134 J	0.0118 J	0.00555
	KWB-11B	Apr-18			0.00154 J	0.0130	0.131 J	<0.000160	<0.000260	<0.000540	<0.0150	<0.000240	0.000543 J	0.0000648 JB	<0.000350	0.0107	0.0111	0.00826
	KWB-11B	Oct-18			0.00122 J	0.0130	0.128 J	<0.000160	<0.000520	<0.00108	<0.0300	<0.000480	0.00248 JB	0.000180 J	0.00108 J	0.00911	0.0111 J	0.00776 J
	KWB-11B	Apr-19			0.00141 J	0.0137	0.161 JB	<0.000160	<0.000260	0.000800 J	<0.0150	0.000488 J	0.00172 J	<0.0000490	<0.000350	0.00969	0.0117	0.00783
	KWB-11B	Oct-19			0.00141 J	0.0137	0.100 J	<0.000160	<0.000260	0.000769 J	<0.0150	<0.000240	0.00109 J	0.0000867 JB	<0.000350	0.00915	0.0108	0.00915
	KWB-11B	Jun-20			0.00119 J	0.0144 J	0.0989 J	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00213 J	<0.000100	<0.000952	0.00865	0.0125 J	0.00855
	KWB-11B	Oct-20			<0.00368	<0.0389	0.111 J	<0.00239	<0.00238	<0.00745	<0.244	<0.0124	<0.00660	<0.000100	<0.00476	0.00750 J	**<0.0377**	0.00905 J
	KWB-12A	Oct-18			0.00135 J	0.0138	0.592	<0.000160	<0.000260	0.000549 J	<0.0150	<0.000240	0.000829 J	<0.0000490	0.000350 J	0.00302	0.0234	0.0120
	KWB-12A	Oct-19			0.00156 J	0.0144	0.568	<0.000160	<0.000260	<0.000540	0.0166 JB	0.000468 JB	0.00146 J	0.0000672 JB	0.000797 J	0.00368	0.0235	0.0113
	KWB-12A	Jun-20			0.00217	0.0182 J	0.552	<0.000478	<0.000477	<0.00149	0.195	<0.00249	0.0199	<0.000100	0.00213	0.00292	0.0268	0.0112
	KWB-12A	Oct-20			0.00148 J	0.0188 J	0.535	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00279 JB	<0.000100	<0.000952	0.00371	0.0267	0.00976
	KWB-12B	Apr-18			0.00155 J	0.00991	0.609	<0.000160	<0.000260	0.00116 J	0.0689 JB	0.000700 JB	0.00277 JB	0.0000606 J	0.000382 J	0.00311 B	**0.0301**	0.0125
	KWB-12B	Apr-18	FD		0.00174 J	0.0102	0.607	<0.000160	<0.000260	<0.000540	0.0363 J	<0.000240	0.00120 J	<0.0000490	0.000364 J	0.00329	**0.0304**	0.0125
	KWB-12B	Oct-18			0.00155 J	0.00876	0.602	<0.000160	<0.000260	<0.000540	0.0949 J	<0.000240	0.000451 J	<0.0000490	<0.000350	0.00277	0.0248	0.0112
	KWB-12B	Oct-18	FD		0.00157 J	0.00884	0.585	<0.000160	<0.000260	0.000608 J	<0.0150	<0.000240	0.000456 J	<0.0000490	0.000531 J	0.00294	0.0269	0.0117
	KWB-12B	Apr-19			0.00195 J	0.0128	0.606	<0.000160	<0.000260	0.000875 JB	0.137	0.000534 JB	0.0110	<0.0000490	0.000567 JB	0.00355	0.0299	0.0141
	KWB-12B	Apr-19	FD		0.00186 J	0.0100	0.601	<0.000160	<0.000260	0.000663 J	0.0433 JB	<0.000240	0.00208 J	0.000152 J	0.00230	0.00310	0.0279	0.0121
	KWB-12B	Oct-19			0.00176 J	0.00924	0.580	<0.000160	<0.000260	<0.000540	0.0196 JB	0.000455 JB	0.00193 J	0.0000601 JB	<0.000350	0.00343	0.0257	0.0123
	KWB-12B	Oct-19	FD		0.00175 J	0.00933	0.577	<0.000160	<0.000260	0.000731 J	0.0234 J	<0.000240	0.00406 J	0.0000574 JB	0.000403 J	0.00354	0.0281	0.0124
	KWB-12B	Jun-20			0.00169 J	0.00835 J	0.594	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00268	0.0275	0.0129
	KWB-12B	Jun-20	FD		0.00178 JB	0.00890 J	0.590	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.0162	0.00254	0.0266	0.0126
	KWB-12B	Oct-20			0.00189 J	0.00994 J	0.580	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.00146 J	0.00294	0.0287	0.0135
	KWB-12B	Oct-20	FD		0.00173 J	0.00955 J	0.577	<0.000478	<0.000477	0.00173 J	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00269	0.0268	0.0134
	KWB-P4	Apr-13																
	KWB-P4	Apr-15																
	KWB-P4	Apr-17																
	KWB-P4	Apr-19																
	MW-57	Apr-18			0.00550	0.0169				<0.000540	0.120 B	0.000325 JB	**0.481**			0.0140 B		
	MW-57	Oct-18			0.00512	0.0170				0.000612 J	0.209	<0.000240	0.0900			0.0120		
	MW-57	Apr-19			**0.0239**	0.150				0.0102	**8.63**	0.00950	**0.797**			0.0148		
	MW-57	Oct-19			0.00458	0.0175				0.000779 J	0.197	0.00603	0.0327			0.0166		
	MW-57	Jun-20			0.00366	0.0166 J				<0.00149	0.358	<0.00249	0.0473			0.0114		
	MW-57	Oct-20			**0.0157**	0.136				0.00879	**6.56**	0.0100	**0.333**			0.0120		
	MW-58	Oct-17			0.00648	1.15	0.471	<0.000160	<0.000260	<0.000540	0.385	0.00204	**0.319**	<0.0000490	0.00129 J	<0.000380	<0.00165	0.00422 J
	MW-58	Apr-18			0.00453	1.35	0.511	<0.000160	<0.000260	<0.000540	**1.54**	0.00185 J	**0.210**	<0.0000490	0.00105 J	<0.000380	<0.000330	0.00270 J
	MW-58	Oct-18			0.00336	1.29	0.348	<0.000160	<0.000260	0.000567 J	0.721	0.00167 J	**0.335**	<0.0000490	0.000975 J	<0.000380	0.000458 J	0.00305 J
	MW-58	Oct-19			0.00549	0.988	0.736	<0.000160	0.000479 J	0.000715 J	0.767	0.00437	0.0912	0.0000567 JB	0.00160 J	<0.000380	<0.000330	0.00441 J
	MW-111	Apr-18			**0.0137**	0.0620				<0.000540	**6.30**	<0.000240	**1.68**			0.000847 J		
	MW-111	Oct-18			0.00849 J	0.0674				<0.00270	**6.39**	<0.00120	**1.42**			<0.00190		
	MW-111	Apr-19			**0.0199**	0.364				0.0112	**13.1**	0.00704	**1.79**			0.000631 J		
	MW-111	Oct-19			0.00909	0.0915				0.00109 J	**6.90**	0.000687 JB	**1.37**			<0.000380		
	MW-111	Jun-20			**0.0183**	0.285				0.00596	**9.23**	0.00469 J	**1.61**			<0.000657		
	MW-112	Nov-14			0.00500	**7.60**				0.00210	**5.80**	0.00130 J	**0.310**			0.00180 J		
	MW-113	Apr-18			0.00199 J	0.0212				0.00154 J	0.454	<0.000240	**0.856**			<0.000380		
	MW-113	Apr-18	FD		0.00257	0.0245				0.00532 B	0.550	<0.000240	**0.892**			<0.000380		
	MW-113	Oct-18			0.00240	0.0200				<0.000540	0.487	<0.000240	**1.06 V**			<0.000380		
	MW-113	Oct-18	FD		0.00265	0.0228				<0.000540	0.522	0.000639 JB	**1.15**			<0.000380		
	MW-113	Apr-19			0.00292	0.0208				0.00192 JB	0.399	0.000845 JB	**0.871**			0.000782 J		
	MW-113	Apr-19	FD		0.00236	0.0227				<0.000540	0.388	<0.000240	**0.834**			<0.000380		
	MW-113	Oct-19			0.00241	0.0367				0.000800 J	0.552 B	0.000743 JB	**1.15**			0.00309		
	MW-113	Oct-19	FD		0.00237	0.0370				0.00111 J	0.544	0.000692 J	**1.12**			0.00151 J		
	MW-113	Jun-20			0.00185 J	0.0334				0.00155 J	**1.16**	<0.00249	**1.29**			<0.000657		
	MW-113	Jun-20	FD		0.00186 J	0.0313				<0.00149	**1.03**	<0.00249	**1.34**			<0.000657		
	MW-113	Oct-20			<0.000735	0.0438				<0.00149	0.253	<0.00249	**1.08**			<0.000657		
	MW-113	Oct-20	FD		<0.00368	0.0408 J				<0.00745	<0.244	<0.0124	**1.12**			<0.00328		
	MW-125	Apr-18			0.00440	0.00924				<0.000540	0.0793 J	<0.000240	**0.393**			0.00275		
	MW-125	Oct-18			0.00334	0.00858				<0.000540	<0.0150	<0.000240	**0.390**			0.00238		
	MW-125	Apr-19			0.00386	0.00849				0.000670 J	0.0265 J	<0.000240	**0.405**			0.00433		
	MW-125	Oct-19			0.00354	0.00897				<0.000540	<0.0150	0.000326 JB	**0.415**			0.00403		
	MW-125	Jun-20			0.00388	0.00983 J				<0.00149	<0.0489	<0.00249	**0.431**			0.00289		
	MW-125	Oct-20			0.00367	0.0101 J				<0.00149	<0.0489	<0.00249	**0.430**			0.00180 J		
	MW-126A	Apr-18			0.00200 J	0.0170				<0.000540	0.653	0.000242 J	**0.851**			<0.000380		
	MW-126A	Oct-18			0.00135 J	0.0153				0.00132 J	0.537	<0.000480	**0.642**			<0.000760		
	MW-126A	Apr-19			0.00122 J	0.0151				0.00136 JB	0.431	<0.000240	**0.776**			<0.000380		
	MW-126A	Oct-19			0.00261	0.0205				0.00105 J	**2.05**	0.000799 J	**0.649**			<0.000380		
	MW-126A	Jun-20			0.00110 J	0.0157 J				<0.00149	0.437	<0.00249	**0.617**			<0.000657		
	MW-126A	Oct-20			0.00225	0.0158 J				<0.00149	**1.78**	<0.00249	**0.707**			<0.000657		
	MW-126B	Apr-18			0.00339	0.00918				<0.000540	<0.0150	<0.000240	0.0516			0.00364		
	MW-126B	Oct-18			0.00387 J	0.00911				0.00139 J	<0.0300	<0.00120	0.0593			0.00383 J		
	MW-126B	Apr-19			0.00400	0.00999				0.00150 JB	0.0379 J	0.000323 JB	0.0476			0.00332		
	MW-126B	Oct-19			0.00358	0.00916				0.000543 J	<0.0150	<0.000240	0.0434			0.00305		
	MW-126B	Jun-20			0.00346	0.0100 J				<0.00149	<0.0489	<0.00249	0.0425			0.00276		
	MW-126B	Oct-20			0.00367	0.00961 J				<0.00149	<0.0489	<0.00249	0.0481			0.00364		
	MW-127	Oct-17			**0.0114**	0.212				0.00109 J	**1.39**	0.000965 J	0.135			<0.000380		
	MW-127	Apr-18			0.00381	0.0682				0.00370 B	0.144 B	<0.000240	0.106			<0.000380		
	MW-127	Oct-18			0.00439	0.0589				<0.00108	0.0981 J	<0.000480	0.121			<0.000760		
	MW-127	Apr-19			0.00451	0.0960				0.000909 JB	0.0634 J	0.000461 JB	0.113			<0.000380		
	MW-128	Oct-17			**0.0554**	0.0610				0.000618 J	**3.07**	0.000404 J	**2.09**			0.00122 J		
	MW-128	Apr-18			**0.0566**	0.0728				0.00278	**4.19**	0.00257 B	**2.04**			0.000436 JB		
	MW-128	Oct-18			**0.0447**	0.0604				<0.000540	**2.40**	0.000261 J	**1.78 O1V**			<0.000380		
	MW-128	Apr-19			**0.0546**	0.0910				0.00303 B	**4.19**	0.00535	**2.01**			0.000397 J		
	MW-129	Apr-16			**0.0272**	0.593				<0.00270	**5.49**	<0.00120	**1.10**			<0.00190		
	MW-129	Oct-16			**0.0236**	0.607				0.000625 JB	**4.79**	0.000529 J	**1.00**			<0.000380		
	MW-129	Apr-17			**0.0226**	0.627				<0.000540	**5.10**	<0.000240	**0.987**			<0.000380		
	MW-129	Apr-18			**0.0252**	0.516				<0.000540	**5.42**	<0.000240	**1.01**			<0.000380		

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	MW-130	Apr-18		0.00400	0.0179				<0.000540	0.0297 J	<0.000240	0.0937			0.0162		
	MW-130	Oct-18		0.00341	0.0159				<0.000540	0.0289 J	<0.000240	0.0888			0.00722		
	MW-130	Apr-19		0.00385	0.0203				<0.000540	0.0697 J	0.000361 JB	0.101			0.0137		
	MW-130	Oct-19		0.00400	0.0198				0.000858 J	0.346	0.000349 J	0.101			0.00478		
	MW-130	Jun-20		0.00375	0.0168 J				<0.00149	0.0745 J	<0.00249	0.0968			0.00436		
	MW-130	Oct-20		0.00374	0.0173 J				0.00174 J	0.0826 J	<0.00249	0.101			0.00581		
	MW-131	Apr-17		**0.0214**	**2.75**				<0.000540	**1.29**	<0.000240	**0.294**			<0.000380		
	MW-131	Oct-17		**0.0223**	1.98				<0.000540	**1.56**	<0.000240	**0.283**			<0.000380		
	MW-131	Oct-19		**0.0261**	1.65				<0.000540	**1.55**	0.000845 JB	**0.293**			<0.000380		
	MW-131	Jun-20		**0.0241**	**2.39**				<0.00149	**1.35**	<0.00249	**0.294**			<0.000657		
	MW-133	Nov-14		**0.0190**	0.130				0.000600 J	**3.50**	0.000800 J	**0.380**			<0.000380		
	MW-133	Apr-15		0.00897	0.157				<0.000540	**5.53**	0.00145 J	**0.312**			0.00124 J		
	MW-134	Apr-18		0.00410	0.00963				<0.000540	<0.0150	<0.000240	0.0144			0.00560		
	MW-134	Apr-18	FD	0.00465	0.0100				0.00883 J3J5	0.0683 J	0.000274 J	0.0135			0.00665		
	MW-134	Oct-18		0.00394	0.00921				<0.000540	<0.0150	<0.000240	0.0119			0.00564		
	MW-134	Oct-18	FD	0.00388	0.00989				<0.000540	<0.0150	<0.000240	0.0134			0.00539		
	MW-134	Apr-19		0.00471	0.0122				0.00278 B	0.193	0.000688 JB	0.0792			0.00747		
	MW-134	Apr-19	FD	0.00418	0.0122				0.00108 JB	0.183	0.00115 JB	0.0600			0.00829		
	MW-134	Oct-19		0.00417	0.00988				0.000807 J	0.0171 JB	0.000450 JB	0.0383			0.00818		
	MW-134	Oct-19	FD	0.00409	0.00949				0.00104 J	0.0163 J	<0.000240	0.0303			0.00704		
	MW-134	Jun-20		0.00368	0.00896 J				<0.00149	<0.0489	<0.00249	0.00741			0.00631		
	MW-134	Jun-20	FD	0.00384	0.00932 J				<0.00149	<0.0489	<0.00249	0.00677			0.00602		
	MW-134	Oct-20		0.00362	0.0101 J				<0.00149	0.0916 J	<0.00249	0.0370			0.00592		
	MW-134	Oct-20	FD	0.00356	0.0101 J				<0.00149	0.0671 J	<0.00249	0.0339			0.00527		
	MW-135	Apr-18		0.00348	0.0186				0.00386 B	0.205 B	0.000510 J	0.0114			0.0254		
	MW-135	Oct-18		0.00335 J	0.0422				0.00276 J	0.649	0.000966 J	0.0380			0.0298		
	MW-135	Apr-19		0.00383	0.0199				0.00245 B	0.205	0.000746 JB	0.0188			0.0334		
	MW-135	Oct-19		0.00335	0.00928				0.00140 J	0.221 B	0.00194 JB	0.0277			0.0200		
	MW-135	Jun-20		0.00326	0.0158 J				<0.00149	0.203	<0.00249	0.0119			0.0221		
	MW-135	Oct-20		<0.00368	<0.0389				<0.00745	0.745	<0.0124	0.0315			0.0186		
	MW-145	Oct-20															
	MW-145	Oct-20	FD														
	MW-146	Oct-20															
	MW-147	Oct-20															
	MW-148	Oct-20															
	RA-4196	Apr-18															
	RA-4196	Oct-18															
	RA-4196	Apr-19															
	RA-4196	Oct-19															
	RA-4196	Jun-20															
	RA-4196	Oct-20															
	RA-4798	Apr-18															
	RA-4798	Oct-18															
	RA-4798	Apr-19															
	RA-4798	Oct-19															
	RA-4798	Jun-20															
	RA-4798	Oct-20															
	RW-12R	Apr-17		0.000503 J	0.0409				0.0359	0.241	0.00193 J	**0.398**			<0.000380		
	RW-12R	Apr-18		0.000291 J	0.0387				0.00973	0.0459 J	0.00104 J	**0.718**			0.000554 J		
	RW-12R	Apr-19		0.00109 J	0.0354				0.00771 B	0.0800 J	0.00177 JB	**1.28**			0.000508 J		
	RW-12R	Jun-20		<0.000735	0.0342				**0.0557**	0.150	<0.00249	**1.39**			<0.000657		
	RW-13R	Apr-16		0.00922 J	0.0165				<0.00270	0.572	<0.00120	**1.26**			<0.00190		
	RW-13R	Apr-18		0.000839 J	0.0475				0.00357	0.349	0.000602 J	**0.985**			0.00161 J		
	RW-18A	Apr-17		0.00331	0.0107				<0.000540	<0.0150	<0.000240	0.000927 J			0.00406		
	RW-18A	Apr-18		0.00278	0.0105				<0.000540	<0.0150	<0.000240	0.00299 J			0.00321		
	RW-18A	Apr-19		0.00293	0.0117				0.00130 JB	0.0191 J	0.000246 JB	0.000480 J			0.00449		
	RW-18A	Jun-20		0.00451	0.0243				0.00223	**3.06**	0.00276 J	0.0307			0.00475		
	RW-20	Apr-15		0.00375 J	0.527				<0.00270	**1.75**	0.00354 J	**0.872**			<0.00190		
	RW-22	Apr-15		0.00248	0.816				0.00320	0.140	0.00397	**0.845**			0.00234		
NCL	MW-18	Apr-17		0.00365	0.0183	**1.71**	<0.000160	0.000321 J	0.00222	<0.0150	<0.000240	0.00474 JB	<0.0000490	0.00120 J	0.0151	0.0250	0.0195
	MW-18	Apr-18		0.00413	0.0130	**1.40**	<0.000160	<0.000260	0.000973 J	<0.0150	0.000243 J	0.0125	<0.0000490	0.00198 J	0.0148	**0.0378**	0.0178
	MW-18	Apr-19		0.00342	0.0184	**1.60**	<0.000160	<0.000260	0.00228	0.0171 JB	<0.000240	0.00442 J	0.0000529 J	0.000907 J	0.0167	0.0283	0.0174
	MW-18	Jun-20		0.00271	0.0126 J	**2.52**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.0169	<0.000100	0.00103 J	0.00739	**0.0451**	0.0180
	MW-45	Apr-18		0.00591	0.0141	0.611	<0.000160	<0.000260	<0.000540	**1.33**	0.00179 J	**0.457**	<0.0000490	0.00452	<0.000380	0.000779 J	0.000586 J
	MW-45	Oct-18		0.00327	0.0156 B	0.670	0.000394 JB	<0.000260	<0.000540	**1.58**	0.00109 JB	**0.599**	<0.0000490	0.00378	<0.000380	0.000654 J	0.000278 J
	MW-45	Apr-19		0.00574	0.0171	0.643	<0.000160	<0.000260	<0.000540	**1.43**	0.00235	**0.481**	<0.0000490	0.00485	<0.000380	0.00135 J	0.000729 J
	MW-45	Oct-19		0.00373	0.0150	0.663	<0.000160	<0.000260	0.000546 JB	**1.64**	0.000564 JB	**0.432**	<0.0000490	0.00399 B	<0.000380	<0.000330	0.00116 J
	MW-45	Jun-20		0.00395	0.0157 J	0.573	<0.000478	<0.000477	<0.00149	**1.02**	<0.00249	**0.481**	<0.000100	0.00525	<0.000657	<0.00754	<0.000986
	MW-45	Oct-20		0.00493	0.0149 J	0.620	<0.000478	<0.000477	<0.00149	**1.26**	<0.00249	**0.526**	<0.000100	0.00569	<0.000657	<0.00754	0.00106 J
	MW-53	Apr-16		0.00193 J	0.0308				<0.00270	<0.0750	<0.00120	**1.07**			0.00617 J		
	MW-53	Apr-17		0.00166 J	0.0201				<0.000540	<0.0150	<0.000240	**1.60**			0.00281		
	MW-53	Apr-18		0.00259	0.0423				0.000742 JJ3J4	0.0922 J	0.000794 J	**2.34**			0.000729 J		
	MW-53	Apr-19		0.00161 J	0.0190				<0.000540	0.0333 J	0.000346 J	**0.799**			<0.000380		
	MW-53R	Oct-20		0.00190 J	0.0482				0.00177 J	0.426	<0.00249	**0.474**			<0.000657		
	MW-54A	Apr-18		0.00456	0.0161				<0.000540 J3J4	0.0500 J	0.000449 J	**0.531**			0.000467 J		
	MW-54A	Oct-18		0.00410	0.0165				<0.000540	0.0601 J	<0.000240	**0.541**			<0.000380		
	MW-54A	Apr-19		0.00339	0.0139				<0.000540	0.0627 J	0.000375 J	**0.499**			<0.000380		
	MW-54A	Oct-19		0.00506	0.0155				0.00121 JB	0.0952 JB	0.000304 JB	**0.581**			<0.000380		
	MW-54A	Jun-20		0.00452	0.0168 J				<0.00149	0.188	<0.00249	**0.589**			<0.000657		
	MW-54A	Oct-20		0.00516	0.0161 J				<0.00149	0.121	<0.00249	**0.625**			<0.000657		
	MW-54B	Apr-13		<0.00500	0.0183				<0.00500	<0.200	<0.00500	0.145			<0.00500		
	MW-54B	Apr-15		0.00220	0.0165				<0.000540	0.0520 J	<0.000240	0.165			0.000400 J		
	MW-54B	Apr-17		0.00181 J	0.0158				<0.000540	<0.0150	<0.000240	**0.253**			0.000720 J		
	MW-54B	Apr-19		0.00251	0.0161				<0.000540	0.116	0.000628 J	0.197			0.000402 J		
	MW-55	Apr-18		0.00661	0.0128	**1.50**	<0.000160	0.000359 J	0.000955 J	0.0331 J	0.000370 J	0.139	0.000151 J	0.00581	0.00444	**0.0503**	0.0190
	MW-55	Oct-18		0.00584	0.0109 B	**1.45**	0.000388 JB	<0.000260	0.000540 J	0.0292 J	0.000240 JB	0.114	<0.0000490	0.00678	0.00570	**0.0504**	0.0186
	MW-55	Apr-19		0.00596	0.0114	**1.43**	<0.000160	<0.000260	0.000686 J	0.0504 JB	<0.000240	0.0855	0.000190 J	0.00592	0.00564	**0.0624**	0.0204
	MW-55	Oct-19		0.00642	0.0109 B	**1.05**	<0.000160	0.000276 J	<0.000540	0.0212 JB	0.00129 JB	0.144	<0.0000490	0.00777 B	0.00225	**0.0503**	0.0198
	MW-55	Jun-20		0.00632	0.0119 J	**0.979**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.148	<0.000100	0.00713	0.00121 J	**0.0549**	0.0189
	MW-55	Oct-20		0.00684	0.0131 J	0.695	<0.000478	<0.000477	0.00201	0.0508 J	<0.00249	0.168	<0.000100	0.00670	0.00120 J	**0.0364**	0.0186
	MW-56	Apr-17		0.00642	0.0157				<0.000540	<0.0150	0.000467 J	**0.320**			0.00325		
	MW-56	Apr-18		0.00731	0.0119				0.0102	0.0355 J	0.000487 J	**0.307**			0.000796 J		
	MW-56	Apr-19		0.00631	0.0132				<0.000540	0.0310 J	0.000718 J	**0.325**			0.00217		
	MW-56	Jun-20		0.00529	0.0104 J				<0.00149	<0.0489	<0.00249	**0.302**			0.000968 J		
	MW-108	Apr-18		0.00398	0.0468				0.00323	0.174	0.00243	0.0342			0.000702 J		
	MW-108	Oct-18		0.00274	0.0384				0.00310	**4.57**	0.00279 B	0.0540			<0.000380		
	MW-108	Apr-19		0.00196 J	0.0304				0.00325	0.322	0.00135 J	0.0255			0.000390 J		
	MW-108	Oct-19		0.00107 J	0.0402				0.00132 J	0.273	0.00118 J	0.0633			<0.000380		
	MW-108	Jun-20		0.00111 J	0.0411				<0.00149	0.230	<0.00249	0.0401			<0.000657		
	MW-108	Oct-20		0.00115 J	0.0469				<0.00149	<0.0489	<0.00249	0.0593			<0.000657		
	NCL-31	Apr-18		**0.0129**	0.0150				0.00375	0.998	0.000361 J	**2.05**			<0.000380		
	NCL-31	Oct-18		**0.0241**	0.0172 B				<0.000540	**1.03**	0.000447 JB	**2.02**			<0.000380		
	NCL-31	Apr-19		0.00772	0.0137				0.000759 J	0.821	0.000881 J	**1.93**			<0.000380		
	NCL-31	Oct-19		0.00915	0.0175				0.000613 J	0.0875 J	0.000376 J	**1.46**			0.00502		
	NCL-31	Jun-20		**0.0135**	0.0134 J				<0.00149	**1.13**	<0.00249	**2.24**			<0.000657		
	NCL-31	Oct-20		**0.0120**	0.0129 J				<0.00149	0.689	<0.00249	**2.15**			<0.000657		

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	**Well ID**	**Date**	**Dup**															
NCL	NCL-32	Apr-18		0.00443	0.0199				0.000813 J	0.0806 J	0.000723 J	**0.926**			0.00138 J		
	NCL-32	Oct-18		0.00306	0.0198 B				0.00201	0.339	0.00224 B	**1.34**			0.00134 J		
	NCL-32	Apr-19		0.00257	0.0172				<0.000540	**1.84**	0.000470 J	**1.14**			0.00222		
	NCL-32	Oct-19		0.00213	0.0153				0.000548 J	0.0391 J	0.000373 J	**1.50**			0.00249		
	NCL-32	Jun-20		0.00203	0.0165 J				<0.00149	<0.0489	<0.00249	**1.31**			0.00321		
	NCL-32	Oct-20		0.00236	0.0160 J				<0.00149	0.0494 J	<0.00249	**1.73**			0.00271		
	NCL-33	Apr-18		0.00382	0.0223				<0.000540	**1.64**	<0.000240	0.117			0.000746 J		
	NCL-33	Oct-18		0.00303	0.0244				<0.000540	**2.02**	<0.000240	0.119			0.000474 J		
	NCL-33	Apr-19		0.00327	0.0280				<0.000540	**1.97**	0.000403 J	0.106			0.000405 J		
	NCL-33	Oct-19		0.00457	0.0280				0.000581 J	**2.91**	0.000470 J	0.157			0.00132 J		
	NCL-33	Jun-20		0.00452	0.0289				<0.00149	**3.52**	<0.00249	0.194			0.00130 J		
	NCL-33	Oct-20		0.00531	0.0231				<0.00149	**4.03**	<0.00249	0.188			0.00144 J		
	NCL-34A	Apr-18		0.00175 J	0.452				<0.000540	0.0183 J	0.000440 J	0.0204			0.000485 J		
	NCL-34A	Oct-18		0.000692 J	0.376				<0.000540	<0.0150	<0.000240	0.0191			0.000423 J		
	NCL-34A	Apr-19		0.000663 JJ6	0.966 V				<0.000540	0.0216 J	<0.000240	0.0158 O1			**0.101** J3J6O1		
	NCL-34A	Oct-19		0.000719 J	0.293				0.000842 JB	0.0403 JB	0.000906 JB	0.0318			0.000403 J		
	NCL-34A	Jun-20		0.000811 J	0.242				<0.00149	<0.0489	<0.00249	0.0416			<0.000657		
	NCL-44	Apr-18		**0.0387**	0.0230				0.00120 J	**1.03**	0.000489 J	**0.884**			<0.000380		
	NCL-44	Oct-18		**0.0301**	0.0201 B				<0.000540	**1.13**	0.000618 JB	**0.879**			<0.000380		
	NCL-44	Apr-19		**0.0245**	0.0215				0.000595 J	0.792	0.000443 J	**0.879**			0.000878 J		
	NCL-44	Oct-19		**0.0293**	0.0205				<0.000540	**1.16**	<0.000240	**0.912**			0.000383 J		
	NCL-44	Jun-20		**0.0305**	0.0218				<0.00149	**1.09**	<0.00249	**0.842**			<0.000657		
	NCL-44	Oct-20		**0.0211**	0.0201				0.00369	0.641	<0.00249	**0.820**			<0.000657		
	NCL-49	Apr-18		0.00283	0.0138				0.000688 JJ3J4	<0.0150	0.000258 J	0.00310 J			0.0111		
	NCL-49	Apr-18	FD	0.00254	0.0136				<0.000540 J3J4	<0.0150	<0.000240	0.00462 J			0.0125		
	NCL-49	Oct-18		0.00156 J	0.0127				<0.000540	<0.0150	<0.000240	0.000358 J			0.00739		
	NCL-49	Oct-18	FD	0.00154 J	0.0115				<0.000540	<0.0150	<0.000240	<0.000250			0.00624		
	NCL-49	Apr-19		0.00148 J	0.0135				0.000545 J	0.0420 J	0.000438 J	0.000612 JB			0.00606		
	NCL-49	Apr-19	FD	0.00157 J	0.0128				<0.000540	0.128	<0.000240	0.00721			0.00630		
	NCL-49	Oct-19		0.00144 J	0.0136 B				0.00113 JB	0.0164 JB	0.000412 JB	0.000870 JB			0.00551		
	NCL-49	Oct-19	FD	0.00139 J	0.0133 J				<0.00270	<0.0750	<0.00120	<0.00125 J3J5			0.00652 J		
	NCL-49	Jun-20		0.00135 J	0.0145 J				<0.00149	<0.0489	<0.00249	0.0222			0.00832		
	NCL-49	Jun-20	FD	0.00123 J	0.0126 J				<0.00149	<0.0489	<0.00249	0.00204 J			0.00717		
	NCL-49	Oct-20		0.00141 J	0.0129 J				0.00153 J	<0.0489	<0.00249	<0.00132			0.00873		
	NCL-49	Oct-20	FD	0.00155 J	0.0123 J				<0.00149	<0.0489	<0.00249	<0.00132			0.00920		
North Refinery	MW-23	Apr-18		0.00511	**9.72**				0.000601 JB	0.0297 J	0.00227	0.0750			0.000496 J		
	MW-23	Oct-18		0.00455	**8.55**				<0.000540	0.0527 J	0.00657	0.0630			**0.0661**		
	MW-23	Apr-19		0.00499	**9.47**				0.000969 JB	0.0226 J	0.00230	0.0709			0.00135 J		
	MW-23	Oct-19		0.00587	**9.44**				<0.000540	0.0573 J	0.0150	0.0696			0.000501 J		
	MW-23	Jun-20		0.00595	**9.81 V**				<0.00149	0.0693 J	0.00484 J	0.0692			<0.000657		
	MW-23	Oct-20		0.00627	**12.3**				<0.00149	0.0501 J	0.00712	0.0769			<0.000657		
	MW-29	Apr-18		0.00154 J	0.0192				<0.000540	0.0804 J	0.000379 J	**0.483**			<0.000380		
	MW-29	Oct-18		0.00209	0.0289				<0.000540	<0.0150	<0.000240	**0.341**			0.0275		
	MW-29	Apr-19		0.00173 J	0.0169				<0.000540	0.174 B	<0.000240	**0.534**			<0.000380		
	MW-29	Oct-19		**0.0161**	0.0171				<0.000540	**4.34**	<0.000240	**0.586**			0.000458 J		
	MW-29	Jun-20		0.00842	0.0172 J				<0.00149	0.0632 J	<0.00249	**0.258**			<0.000657		
	MW-29	Oct-20		**0.0170**	0.0188 J				<0.00149	0.294	<0.00249	**0.233 V**			0.000944 J		
	MW-39	Apr-18		**0.0110**	0.0159				0.00126 JB	0.0868 J	0.00139 J	0.0181			<0.000380		
	MW-39	Oct-18		0.00800	0.0687				<0.000540	<0.0150	0.000324 J	0.0200			0.0389		
	MW-39	Apr-19		0.00933	0.0590				<0.000540	0.0175 J	0.000354 J	0.0267			0.000668 J		
	MW-39	Oct-19		0.00690	0.0118				<0.000540	<0.0150	<0.000240	0.0282			<0.000380		
	MW-39	Jun-20		0.00757	0.0145 J				<0.00149	<0.0489	<0.00249	0.0410			<0.000657		
	MW-39	Oct-20		0.00755	0.0130 J				<0.00149	<0.0489	<0.00249	0.0546			<0.000657		
	MW-40	Apr-17		0.000786 J	0.0249				<0.000540	0.0151 J	0.000660 J	0.0241			**0.0704**		
	MW-40	Apr-18		0.000656 J	0.0227				0.000593 JB	0.0289 J	0.000415 J	0.0161			<0.000380		
	MW-40	Apr-19		0.000873 J	0.0234				<0.000540	0.0848 J	0.000467 JB	0.0166			<0.000380		
	MW-40	Jun-20		<0.000735	0.0218				<0.00149	0.181	<0.00249	0.0270			<0.000657		
	MW-41	Apr-17		0.00391	0.0154				<0.000540	0.0429 J	0.000578 J	**0.737**			0.00229		
	MW-41	Apr-18		0.00729	0.0206				<0.000540	0.0230 J	0.000304 J	**1.03**			0.000470 J		
	MW-41	Apr-19		0.00673	0.0370				<0.000540	0.0802 JB	0.000601 J	**0.570**			0.000498 J		
	MW-41	Jun-20		**0.0107**	0.0183 J				<0.00149	<0.0489	<0.00249	**0.857**			<0.000657		
	MW-42	Apr-17		0.00486	0.0182				<0.000540	<0.0150	0.000252 J	0.177			0.00222		
	MW-42	Apr-18		0.00477	0.0206				<0.000540	0.0216 J	0.000406 J	0.123			<0.000380		
	MW-42	Apr-19		0.00516	0.0196				0.000790 J	0.0282 JB	0.000332 J	0.120			<0.000380		
	MW-42	Jun-20		0.00520	0.0191 J				<0.00149	0.233	<0.00249	0.144			<0.000657		
	MW-43	Apr-18		**0.0124**	0.186	**1.32**	<0.000160	<0.000260	0.00246	0.0572 JB	0.000412 JB	0.154	<0.0000490	0.00839	0.00143 JB	<0.000330	0.00181 J
	MW-43	Oct-18		0.00997	0.137	**1.22**	<0.000160	<0.000260	<0.000540	0.0287 J	0.000253 J	0.151	<0.0000490	0.00608	0.000723 J	<0.000330	0.00207 J
	MW-43	Apr-19		0.00725	0.449	**1.14**	<0.000160	<0.000260	0.00113 JB	0.0770 J	0.00106 J	0.184	<0.0000490	0.00695	0.00568	<0.000330	0.00197 J
	MW-43	Oct-19		**0.0101**	0.171	**0.964**	<0.000160	<0.000260	0.00120 J	0.285	0.000752 J	**0.361**	0.0000655 JB	0.00654	0.00140 J	0.00403 J	0.0127
	MW-43	Jun-20		0.00612	0.443	**0.781**	<0.000478	<0.000477	<0.00149	0.375	<0.00249	**0.297**	<0.000100	0.00536	<0.000657	<0.00754	0.00385 J
	MW-43	Oct-20		0.00541	0.801	**0.770**	<0.000478	<0.000477	0.00150 J	0.106	<0.00249	**0.252**	<0.000100	0.00410	<0.000657	<0.00754	0.00249 J
	MW-59	Apr-17		**0.0234**	0.0202				<0.000540	0.123	<0.000240	**0.440**			<0.000380		
	MW-59	Apr-18		**0.0240**	0.0236				<0.000540	0.102 B	<0.000240	**0.448**			<0.000380		
	MW-59	Apr-19		**0.0213**	0.0293				0.000709 JB	0.0987 J	0.000432 J	**0.409**			<0.000380		
	MW-59	Jun-20		**0.0360**	0.0184 J				<0.00149	0.0703 J	<0.00249	**0.369**			<0.000657		
	MW-60	Apr-18		0.00895	0.0188	0.537	<0.000160	0.000365 J	<0.000540	0.0975 JB	0.000342 JB	**0.291**	<0.0000490	0.000820 J	<0.000380	0.00208 J	0.000298 J
	MW-60	Apr-18	FD	0.00863	0.0188	0.531	<0.000160	<0.000260	<0.000540	0.0606 J	0.000350 J	**0.279**	<0.0000490	0.00260	<0.000380	0.00211 J	0.000362 J
	MW-60	Oct-18		0.00751	0.0193	0.690	<0.000160	0.000515 J	<0.000540	0.204	0.000520 J	**0.270**	<0.0000490	0.000952 J	<0.000380	0.00140 J	0.000370 J
	MW-60	Oct-18	FD	0.00684	0.0172	0.677	<0.000160	0.000409 J	<0.000540	0.190	0.000289 J	**0.268**	<0.0000490	0.000846 J	<0.000380	0.00143 J	0.000313 J
	MW-60	Apr-19		0.00433	0.0181	**0.780**	<0.000160	<0.000260	<0.000540	0.102	0.000291 J	**0.205**	<0.0000490	0.000946 J	<0.000380	0.00114 J	0.000385 J
	MW-60	Apr-19	FD	0.00454	0.0205	**0.794**	<0.000160	<0.000260	<0.000540	0.0911 J	0.000630 J	0.200	<0.0000490	0.000941 J	<0.000380	0.00101 J	0.000224 J
	MW-60	Oct-19		**0.0526**	0.0187	0.495	<0.000160	0.000356 J	0.000854 J	0.251	0.000344 JB	**0.226**	0.0000583 JB	0.0121	<0.000380	0.00155 J	0.000654 JB
	MW-60	Oct-19	FD	**0.0126** J3J5O1	0.0186	0.498	0.000791 J	0.000882 J	0.00130 J	0.276 B	0.00162 JB	**0.223 O1**	0.0000624 JB	0.00227	**0.0592** J3J6O1	0.00269 J	0.00115 J
	MW-60	Jun-20		0.00590	0.0194 J	0.447	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.237**	<0.000100	0.00132 J	<0.000657	<0.00754	<0.000986
	MW-60	Jun-20	FD	0.00559	0.0188 J	0.432	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.229**	<0.000100	0.00121 J	<0.000657	<0.00754	<0.000986
	MW-60	Oct-20		0.00621	0.0203	0.465	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.227**	<0.000100	0.00161 J	<0.000657	<0.00754	<0.000986
	MW-60	Oct-20	FD	0.00634	0.0193 J	0.461	<0.000478	<0.000477	<0.00149	<0.0489	0.00319 J	**0.222**	<0.000100	0.00110 J	<0.000657	<0.00754	<0.000986
	MW-61	Apr-18		0.00249	0.0288				0.000703 J	0.0382 JB	0.00174 JB	0.0184			0.000498 JB		
	MW-61	Oct-18		0.00157 J	0.0316				<0.00270	<0.0750	0.00145 J	0.0190 JB			<0.00190		
	MW-61	Apr-19		0.00215	0.0397				0.000543 JB	0.0304 J	0.00185 J	0.0181			**0.0628**		
	MW-61	Oct-19		0.00166 J	0.0542				0.000662 J	0.0443 JB	0.00197 JB	0.0261			0.00817		
	MW-61	Jun-20		0.00296	0.0482				<0.00149	<0.0489	0.00396 J	0.0197			<0.000657		
	MW-61	Oct-20		0.00299	0.0460				0.00151 J	<0.0489	0.00337 J	0.0141 B			<0.000657		
	MW-62	Apr-18		0.00849	0.0467				0.000842 J	<0.0150	0.000380 JB	0.00452 J			<0.000380		
	MW-62	Oct-18		0.00419 J	0.0529				<0.00270	0.0752 J	<0.00120	0.00287 JB			<0.00190		
	MW-62	Apr-19		0.00861	0.0632				0.000825 JB	0.0208 J	0.000399 J	0.00442 J			0.0369		
	MW-62	Oct-19		**0.0446 J6**	0.0472				0.000937 J	0.0794 J	0.00145 J	0.00462 J			0.00186 JJ3J6		
	MW-62	Jun-20		**0.0426**	0.0608				<0.00149	<0.0489	<0.00249	0.00669			<0.000657		
	MW-62	Oct-20		**0.0451**	0.0535				<0.00149	<0.0489	<0.00249	0.00657 B			<0.000657		
	MW-62R	Oct-20		**0.0788**	0.129				0.00169 J	**2.90**	<0.00249	**1.09**			<0.000657		
	MW-67	Oct-17		**0.0103**	0.0906	0.464	<0.000160	<0.000260	0.000639 J	0.0172 J	0.00112 J	0.0986	<0.0000490	0.000648 J	<0.000380	<0.000330	0.000547 J
	MW-67	Apr-18		**0.0107**	0.120	0.456	<0.000160	<0.000260	0.000927 JJ3J4	0.0743 J	0.00171 J	0.0943	<0.0000490	0.000828 J	0.000518 J	<0.000330	0.000584 J
	MW-67	Oct-18		0.00516	0.0745	0.401	0.000220 JB	<0.000260	0.000568 J	0.0289 J	0.00192 JB	0.126	0.000120 J	0.000595 J	<0.000380	<0.000330	0.000634 J
	MW-67	Apr-19		0.00750	0.0933	0.457	<0.000160	<0.000260	<0.000540	0.0253 J	0.000626 JB	0.0866	<0.0000490	0.000703 J	<0.000380	<0.000330	0.000405 J

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQC HH	NMED TW
Area	**Well ID**	**Date**	**Dup**															
North Refinery	MW-90	Apr-18			0.00307	0.0170				<0.000540 J3J4	0.0329 J	<0.000240	0.0329			0.000532 J		
	MW-90	Oct-18			0.00274	0.0189				<0.000540	0.0894 J	0.000534 JB	0.0916			0.000461 J		
	MW-90	Apr-19			0.00236	0.0155				0.000889 JB	0.0179 J	0.000310 JB	0.0602			0.000671 J		
	MW-90	Oct-19			0.00423	0.0147				<0.000540	**1.04**	0.000315 JB	0.100			0.0141		
	MW-90	Jun-20			0.00299 B	0.0150 J				<0.00149	0.295	<0.00249	0.0909			<0.000657		
	MW-90	Oct-20			0.00318	0.0163 J				0.00157 J	0.495	<0.00249	0.124			<0.000657		
	MW-91	Apr-18			0.00800	0.0454				<0.000540 J3J4	0.0370 J	0.00365	0.00264 J			<0.000380		
	MW-91	Oct-18			0.00772	0.0484				0.000738 J	0.0472 J	0.00440 B	0.00539			0.000542 J		
	MW-91	Apr-19			0.00693	0.0460				<0.000540	0.0388 J	0.00412 B	0.00762			0.00460		
	MW-91	Oct-19			0.00392	0.0552				<0.000540	0.0186 J	0.00475	0.00710 B			0.0214		
	MW-91	Jun-20			0.00524 B	0.0561				<0.00149	0.197	0.00610	0.00381 J			<0.000657		
	MW-92	Apr-16			0.00316 J	**3.44** O1V				<0.00270	0.328 J	<0.00120	0.0363			0.00207 J		
	MW-92	Oct-16			0.00732	**2.81**				0.00101 JB	0.0744 J	0.00183 J	0.0274			0.00172 J		
	MW-93	Apr-17			0.00456	0.0228				0.00367	0.278	0.00116 J	0.0258			0.00683		
	MW-93	Apr-18			0.00706	0.0304				0.00945	0.145 B	0.00152 JB	0.0325			0.00377 B		
	MW-93	Apr-19			0.00456	0.0394				0.00174 JB	0.110	0.00105 J	0.0615			0.0144		
	MW-93	Jun-20			0.00827	0.0351				0.00257	0.181	<0.00249	**0.208**			0.00412		
	MW-94	Oct-15			**0.0215**	1.57				0.00144 J	<0.0150	<0.000240	0.00194 J			0.000935 J		
	MW-94	Apr-16			**0.0286**	0.353				<0.00270	<0.0750	<0.00120	0.00666 J			<0.00190		
	MW-94	Oct-16			**0.0115**	0.635				0.00119 JB	0.0159 J	0.000255 J	0.00631			0.000962 J		
	MW-94	Apr-17			**0.0170**	0.873				0.00141 J	0.134	0.000298 J	0.00382 J			0.00304		
	MW-95	Apr-17			0.00173 J	0.0612				<0.000540	<0.0150	<0.000240	0.0330			0.000407 J		
	MW-95	Apr-18			0.00154 J	0.0691				<0.000540	0.0155 J	<0.000240	0.0556			<0.000380		
	MW-95	Apr-19			0.00141 J	0.0597				<0.000540	<0.0150	0.000528 JB	0.0904			<0.000380		
	MW-95	Jun-20			0.00135 JB	0.0431				<0.00149	0.0879 J	<0.00249	0.156			<0.000657		
	MW-96	Apr-18			0.00321	0.124				0.000908 JJ3J4	0.0251 J	0.000257 J	0.00146 J			<0.000380		
	MW-96	Oct-18			0.00251	0.111				<0.000540	0.0658 J	0.000673 JB	0.00158 J			<0.000380		
	MW-96	Apr-19			0.00237	0.161				<0.000540	0.0510 J	0.000267 JB	0.00103 JB			0.000465 J		
	MW-96	Oct-19			0.00199 J	0.149				<0.000540	0.0158 J	<0.000240	0.00648 B			0.00423		
	MW-96	Jun-20			0.00241 B	0.176				<0.00149	<0.0489	<0.00249	<0.00132			<0.000657		
	MW-96	Oct-20			0.00207	0.175				<0.00149	<0.0489	<0.00249	<0.00132			<0.000657		
	MW-98	Apr-18			0.00120 J	0.0156				0.000670 JJ3J4	<0.0150	0.00964	0.0246			0.000402 J		
	MW-98	Oct-18			0.000968 J	0.0182				0.000615 J	0.0174 J	0.00903 JB	0.0210			<0.000380		
	MW-98	Apr-19			0.000810 J	0.0409				<0.000540	<0.0150	0.00796	0.0220			<0.000380		
	MW-98	Oct-19			0.00231	0.0177				0.00153 J	0.0792 J	0.00771	0.0231			0.00508		
	MW-98	Jun-20			0.000895 J	0.0180 J				0.00316	0.0721 J	0.00815	0.0213			<0.000657		
	MW-98	Oct-20			0.000795 J	0.0176 J				<0.00149	<0.0489	0.00690	0.0208			<0.000657		
	MW-137	Oct-17			**0.0156**	0.0756	**1.03**	<0.000160	<0.000260	0.00109 J	0.260	0.00338	**0.209**	<0.0000490	0.0198	0.0393	<0.000330	0.00771
	MW-137	Apr-18			**0.0512**	0.0711	**0.997**	<0.000160	<0.000260	0.00132 J	0.0740 JB	0.00433	0.154	<0.0000490	0.0134	0.00240 B	<0.000330	0.00718
	MW-137	Oct-18			**0.0129**	0.0942	**0.989**	<0.000160	<0.000260	0.000586 J	0.0553 J	0.00318	0.183	<0.0000490	0.0126	**0.341**	<0.000330	0.00844
	MW-137	Apr-19			**0.0285**	0.103	**1.02**	<0.000160	<0.000260	0.000596 JB	0.0240 J	0.00268	0.157	<0.0000490	0.0133	0.00601	<0.000330	0.00838
	MW-138	Oct-17			0.00507	0.103	**1.11**	<0.000160	<0.000260	0.000747 J	0.0334 J	0.000271 J	0.0931	<0.0000490	0.00619	0.00945	<0.000330	0.00195 J
	MW-138	Apr-18			0.00514	0.124	**0.984**	<0.000160	<0.000260	0.000785 J	0.160 B	<0.000240	0.103	<0.0000490	0.00977	0.000667 JB	<0.000330	0.00169 J
	MW-138	Oct-18			0.00464	0.108	**0.927**	<0.000160	<0.000260	<0.000540	0.0235 J	0.000249 J	0.111	<0.0000490	0.00490	**0.0973**	<0.000330	0.00120 J
	MW-138	Apr-19			0.00560	0.141	**0.951**	<0.000160	<0.000260	0.000855 JB	0.0228 J	0.000353 J	0.128	<0.0000490	0.00504	0.00102 J	<0.000330	0.00121 J
	RW-1R	Apr-16			0.00695 J	0.0414				<0.00270	**17.1**	0.00149 J	**0.317**			0.00246 J		
	RW-1	Apr-17			**0.0359**	0.0243				0.00254	**4.88**	0.00492	**0.240**			0.00573 B		
	RW-1	Apr-18			**0.0204**	0.0328				0.000826 JJ3J4	**1.50**	0.00156 J	0.0237			0.00213		
	RW-1	Apr-19			**0.0172**	0.0357				0.00100 JB	**1.14**	0.00100 JB	0.0173			0.00211		
	RW-2	Apr-15			**0.0264**	0.0245 J				0.00553 J	0.381 J	0.00233 J	**0.313**			**0.0705**		
	RW-2R	Apr-16			0.00552 J	0.171				0.00750 J	**2.25**	**0.0153**	0.0705			**0.422**		
	RW-2	Apr-17			0.00504	0.0566				0.00173 J	0.264	0.000960 J	0.0161			0.0100		
	RW-2	Apr-18			0.00374	0.139				0.00362	0.123 B	0.00163 JB	0.0215			0.00128 JB		
	RW-7	Apr-17			0.00332	0.0198				<0.000540	0.183	<0.000240	**1.13**			<0.000380		
	RW-7	Apr-18			**0.0174**	0.144				0.00434 B	**2.92**	0.000599 J	0.106			<0.000380		
	RW-7	Apr-19			**0.0246**	0.122				0.00234 B	**7.78**	0.000979 JB	0.173			0.000381 J		
	RW-7	Jun-20			0.00738	0.176				<0.00149	**2.57**	<0.00249	0.108			<0.000657		
	RW-8	Apr-15			0.00556 J	0.0889				<0.00270	0.427 J	<0.00120	0.0556			0.00200 J		
	RW-8	Apr-17			**0.0343**	0.0593				0.00135 J	**9.50**	0.00169 J	**1.12**			<0.000380		
	RW-9	Apr-17			0.00338	0.0378				<0.000540	<0.0150	<0.00120	**0.784**			0.0217		
	RW-9	Apr-18			0.00404	0.0462				<0.000540	0.0199 J	0.00111 J	**0.545**			0.000498 J		
	RW-9	Apr-19			0.00334	0.0411				<0.000540	0.0195 J	0.00200 B	**0.507**			0.000485 J		
	RW-9	Jun-20			0.00452	0.0367				<0.00149	<0.0489	<0.00249	**0.355**			<0.000657		
	RW-10	Apr-17			0.00167 J	0.0184				<0.000540	0.0250 J	0.000433 J	0.173			<0.000380		
	RW-10	Apr-18			0.00234	0.0224				<0.000540	<0.0150	0.000469 J	0.189			<0.000380		
	RW-10	Apr-19			0.00158 J	0.0207				<0.000540	<0.0150	<0.000240	0.199			0.000555 J		
	RW-10	Jun-20			0.00405	0.0187 J				0.00188 J	<0.0489	<0.00249	0.182			<0.000657		
	RW-16B	Apr-17			**0.0129**	0.0126				0.00108 J	0.0227 J	0.00125 J	**0.263**			0.00658		
	RW-16B	Apr-18			0.00922	0.0130				0.000754 JB	0.0239 J	0.000343 J	**0.201**			0.00643		
	RW-16B	Apr-19			**0.0135**	0.0158				<0.000540	0.0160 JB	0.000494 J	**0.508**			0.00933		
	RW-16B	Jun-20			**0.0267**	0.0591				0.00287	**1.10**	0.00385 J	0.0348			**0.0922**		
	RW-17A	Apr-17			**0.0113**	0.0223				0.000584 J	0.0569 J	0.0106	**0.719**			0.0106		
	RW-17A	Apr-18			**0.0106**	0.0232				<0.000540 J3J4	0.0346 J	0.00975	**0.767**			0.00322		
	RW-17A	Apr-19			**0.0151**	0.0205				0.000799 J	0.140	0.0138	**0.751**			0.000700 J		
	RW-17A	Jun-20			**0.0163**	0.0206				0.00178 J	0.232	0.0104	0.105			0.0154		
North RO Field	MW-117	Apr-18			0.00236	0.0110				0.000952 J	0.200	0.000293 J	0.00405 J			0.0126		
	MW-117	Oct-18			0.00224	0.00996				<0.000540	0.0302 J	<0.000240	0.000557 J			0.0121		
	MW-117	Apr-19			0.00267	0.0119				0.00150 JB	0.127	0.000684 JB	0.00189 J			0.00940		
	MW-117	Oct-19			0.00253	0.0112				0.00105 J	0.114	<0.000240	0.00236 J			0.00898		
	MW-117	Jun-20			0.00249	0.0115 J				<0.00149	0.121	<0.00249	0.00283 J			0.00969		
	MW-117	Oct-20			0.00255	0.0110 J				<0.00149	0.132	<0.00249	0.00353 J			0.0123		
	MW-118	Apr-18			0.00991	0.00943				<0.000540	0.0223 J	0.000430 J	0.000501 J			0.00851		
	MW-118	Oct-18			**0.0103**	0.00867				0.000593 J	0.0156 J	<0.000240	0.000403 J			0.00774		
	MW-118	Apr-19			**0.0106**	0.0106				0.00166 JB	0.0751 J	0.000334 JB	0.00119 J			0.00897		
	MW-118	Oct-19			0.00869	0.0147				0.00160 J	0.255	0.000359 J	0.00306 J			0.0120		
	MW-118	Jun-20			0.00806	0.0122 J				0.00175 J	<0.0489	<0.00249	<0.00132			0.0129		
	MW-118	Oct-20			0.00770	0.0149 J				0.00230	0.249	<0.00249	0.00273 J			0.0126		
	MW-119	Apr-18			0.00392	0.00951				<0.000540	0.0347 J	0.000502 J	0.00250 J			0.00324		
	MW-119	Oct-18			0.00462	0.0110				<0.000540	<0.0150	<0.000240	0.00375 J			0.00112 J		
	MW-119	Apr-19			0.00439	0.0109				0.00115 JB	0.101	0.000477 JB	0.00405 J			0.00989		
	MW-119	Oct-19			0.00451	0.0277				0.00224	0.930	0.000875 J	0.0260			0.00456		
	MW-119	Jun-20			0.00394	0.0105 J				<0.00149	<0.0489	<0.00249	0.00689			0.00466		
	MW-119	Oct-20			0.00451	0.0101 J				0.00163 J	0.0836 J	<0.00249	0.0114 B			0.00422		
South Refinery	KWB-2R	Apr-17			0.00152 J	0.0271				<0.000540	0.0346 J	0.000273 J	**0.564**			<0.000380		
	KWB-2R	Oct-17			0.00258	0.324				<0.000540	0.0522 J	0.00130 J	0.0596			<0.000380		
	KWB-2R	Apr-19			0.00182 J	0.0278				0.00151 JB	0.0333 J	0.000866 JB	**0.626**			<0.000380		
	KWB-2R	Oct-19			0.00126 J	0.290				<0.000540	<0.0150	0.00467	0.171			<0.000380		
	KWB-5	Oct-17			**0.0202**	**5.06**				<0.000540	**2.11**	0.000287 J	**1.64**			<0.000380		
	KWB-5	Apr-18			**0.0201**	**5.09**				<0.000540	**1.21**	0.000758 JB	**1.29**			<0.000380		
	KWB-5	Oct-18			**0.0166**	**3.75**				<0.00270	**2.13**	<0.00120	**1.55**			<0.00190		
	KWB-5	Apr-19			**0.0226**	**3.72**				0.00131 JB	**2.66**	0.00178 JB	**1.50**			<0.000380		
	KWB-6	Apr-17			0.00406	0.152				<0.000540	0.152	0.000533 J	**1.91**			<0.000380		
	KWB-6	Oct-17			0.00898	0.0998				<0.000540	0.250	0.000661 J	**2.15**			<0.000380		
	KWB-6	Apr-18			**0.0251**	0.120				0.00170 J	**4.68**	0.00564	**2.03**			<0.000380		
	KWB-6	Oct-18			0.00813	0.0699				<0.000540	0.149	<0.000240	**1.91**			0.000421 J		

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	MW-28	Apr-18			0.00749	0.0581	**1.29**	<0.000160	<0.000260	<0.000540	0.156 B	0.0134	0.0370	<0.0000490	0.00415	0.000588 JB	<0.000330	0.00230 J
	MW-28	Oct-18			0.00486 J	0.0652	**1.16**	<0.000160	<0.00130	<0.00270	0.0971 J	0.00453 J	0.0509	0.000108 J	0.00659 J	<0.00190	<0.00165	0.00111 JB
	MW-28	Apr-19			0.00422	0.0660	**1.48**	<0.000160	<0.000260	0.00131 JB	0.0910 J	0.00990	0.0749	<0.0000490	0.00465	<0.000380	<0.000330	0.00270 J
	MW-28	Oct-19			0.00396	0.0522	**1.53**	<0.000160	<0.000260	0.000933 J	0.0502 JB	0.00717	0.0261	0.0000582 JB	0.00275	0.00329	<0.000330	0.00228 J
	MW-28	Jun-20			0.00705	0.0449	**1.32**	<0.000478	0.000802 J	<0.00149	0.122	0.0117	**0.708**	<0.000100 J6	0.00624	<0.000657	<0.00754	0.00364 J
	MW-28	Oct-20			0.00538	0.0371	**1.32**	<0.000478	<0.000477	<0.00149	0.0940 J	0.00540	**0.389**	<0.000100	0.00504	<0.000657	<0.00754	0.00375 JB
	MW-48	Apr-18			0.00554	1.82				<0.000540	0.105	0.00142 J	0.136			**0.247**		
	MW-48	Oct-18			0.00561	1.13 V				0.00119 J	0.231	0.00268	**0.347**			0.00132 J		
	MW-48	Apr-19			0.00395	1.04				0.000613 JB	0.195	0.00297	**0.481**			0.0405		
	MW-48	Oct-19			0.00646	1.04				0.00117 J	0.234	0.00232	**0.604**			0.000428 J		
	MW-50	Apr-18			0.00391	0.0130				<0.000540 J3J4	0.323	0.000419 J	**0.968**			0.00580		
	MW-50	Oct-18			0.00610	0.0137				<0.000540	**1.59**	0.000401 JB	**0.898**			0.00178 J		
	MW-50	Apr-19			0.00524	0.0143				0.00128 JB	**1.30**	0.000664 JB	**1.03**			0.00425		
	MW-50	Oct-19			0.00517	0.0155				<0.000540	0.773	0.000723 JB	**1.02**			0.00227		
	MW-50	Jun-20			0.00379 B	0.0113 J				<0.00149	0.226	<0.00249	**0.536**			0.0309		
	MW-50	Oct-20			0.00301	0.0128 J				<0.00149	0.0795 J	<0.00249	**0.450**			0.0377		
	MW-52	Apr-18			0.00363	0.0108	0.728	<0.000160	0.000378 J	<0.000540	<0.0150	<0.000240	0.0435	<0.0000490	0.00628	0.00799	0.0105	0.0259
	MW-52	Oct-18			0.00321	0.00897	0.723	<0.000160	0.000271 J	<0.000540	<0.0150	<0.000240	0.0433	<0.0000490	0.00504	0.00221	0.00888 J	0.0232
	MW-52	Apr-19			0.00357	0.0108	0.741	<0.000160	0.000338 J	0.00154 JB	<0.0150	0.000325 JB	0.0594	<0.0000490	0.00635	0.00537	0.0103	0.0262
	MW-52	Oct-19			0.00353	0.0113	0.732	<0.000160	0.000402 J	0.000693 J	<0.0150	0.000510 JB	0.0618	0.0000644 JB	0.00980	0.00628	0.0114	0.0235
	MW-52	Jun-20			0.00344	0.0149 J	**0.767**	<0.000478	0.000742 J	0.00273	0.252	<0.00249	0.0928	<0.000100	0.0260	0.00612	0.0131 J	0.0247
	MW-52	Oct-20			0.00361	0.0123 J	**0.772**	<0.000478	0.000636 J	<0.00149	<0.0489	<0.00249	0.0661	<0.000100	0.0304	0.00578	0.0125 J	0.0240
	MW-64	Apr-18			**0.0394**	**2.17**				<0.000540	0.179 B	0.00122 J	0.0638			0.000584 J		
	MW-64	Oct-18			**0.0291**	**2.33**				<0.00270	0.148 J	<0.00120	0.0644			<0.00190		
	MW-64	Apr-19			**0.0266**	**2.43**				<0.000540	0.180	0.000861 JB	0.0831			0.000582 J		
	MW-64	Oct-19			**0.0230**	**2.03**				<0.000540	0.487	0.000743 JB	0.0793			<0.000380		
	MW-64	Jun-20			**0.0246**	**2.29**				<0.00149	0.349	<0.00249	0.0920			<0.000657		
	MW-64	Oct-20			**0.0249**	**2.15**				<0.00149	0.0846 J	<0.00249	0.0742			<0.000657		
	MW-65	Apr-18			**0.0108**	**2.60**				<0.000540	**2.18**	0.000448 J	**0.527**			<0.000380		
	MW-65	Oct-18			0.00679 J	1.71				<0.00270	0.624	<0.00120	**0.431**			<0.00190		
	MW-65	Apr-19			0.00832	1.88				<0.000540	0.739	0.000373 JB	**0.530**			<0.000380		
	MW-65	Oct-19			0.00653	1.58				<0.000540	0.265	0.000311 JB	**0.405**			<0.000380		
	MW-66	Apr-18			0.00275	**2.17**	0.309	<0.000160	<0.000260	<0.000540	0.820	0.000939 JB	**0.293**	<0.0000490	0.00678	0.000509 JB	<0.000330	0.000530 J
	MW-66	Oct-18			0.00258	1.88	0.324	<0.000160	<0.000260	<0.000540	0.833	0.00280	**0.278**	<0.0000490	0.00661	<0.000380	<0.000330	0.000708 J
	MW-66	Apr-19			0.00257	**2.75**	0.333	<0.000160	<0.000260	0.00118 JB	**1.20**	0.00158 J	**0.265**	<0.0000490	0.00606	<0.000380	<0.000330	0.000996 J
	MW-66	Oct-19			0.00236	1.44	0.206	<0.000160	<0.000260	0.000717 J	0.426 B	0.00104 JB	**0.283**	0.0000567 JB	0.0131	0.00393	<0.000330	0.00180 J
	MW-66	Jun-20			0.00235	1.99	0.250	<0.000478	<0.000477	<0.00149	0.748	<0.00249	**0.306**	<0.000100	0.00565	<0.000657	<0.00754	<0.000986
	MW-66	Oct-20			0.00267	1.68	0.229	<0.000478	<0.000477	<0.00149	0.704	<0.00249	**0.339**	<0.000100	0.00675	<0.000657	<0.00754	0.00212 JB
	MW-99	Apr-18			0.00900	0.311				0.000544 J	0.143 B	0.000673 JB	**0.244**			<0.000380		
	MW-99	Oct-18			0.00821	0.452				0.000542 J	0.163	0.000718 J	**0.224**			0.00169 J		
	MW-99	Apr-19			0.00789	0.404				0.00207 B	0.346	0.00319	**0.225**			0.000538 J		
	MW-99	Oct-19			0.00338	0.200				0.00124 J	0.465 B	0.00301	0.193			0.00451		
	MW-99	Jun-20			0.00301	0.209				0.00275	0.168	<0.00249	**0.229**			<0.000657		
	MW-101	Apr-18			**0.0754**	0.0518				<0.000540	**2.27**	<0.000240	**1.21**			0.000442 JB		
	MW-101	Oct-18			**0.0819**	0.0374				<0.000540	**2.68**	<0.000240	**1.12**			<0.000380		
	MW-101	Apr-19			**0.0910**	0.0491				<0.000540	**3.08**	0.000245 J	**1.32**			<0.000380		
	MW-101	Oct-19			**0.0500**	0.0574				0.000548 J	**2.65**	0.000438 JB	**1.15**			0.00324		
	MW-101	Jun-20			**0.0735**	0.0551				<0.00149	**3.42**	<0.00249	**1.15**			<0.000657		
	MW-101	Oct-20			**0.0107**	0.0786				<0.00149	**1.75**	<0.00249	**0.912**			<0.000657		
	MW-102	Apr-18			**0.0181**	**7.83**				0.00358 B	**6.74**	0.0111	0.0651			0.000601 J		
	MW-102	Oct-18			**0.0130**	**7.92**				<0.00270	0.103 J	0.00376 J	0.0381			<0.00190		
	MW-102	Apr-19			**0.0151**	**9.15 V**				0.00168 JB	0.183	0.00384	0.0386			<0.000380 J6		
	MW-102	Oct-19			**0.0147**	0.537				0.00180 J	0.156 B	0.00374	0.0321			0.00915		
	MW-102	Jun-20			**0.0129**	**8.69**				<0.00149	0.187	0.00498 J	0.0370			<0.000657		
	MW-102	Oct-20			**0.0147**	**8.81**				0.00155 J	0.159	0.00387 J	0.0405			<0.000657		
	MW-103	Apr-17			0.00848 J	**8.12**				<0.0108	<0.300	<0.00480	0.00689 J			<0.00760		
	MW-103	Apr-18			0.00699	**3.44**				<0.000540	0.0617 JB	<0.00240	0.00151 J			0.00106 J		
	MW-103	Apr-19			0.00567	1.34				0.00111 JB	0.316	0.00298 B	0.00530			0.000937 J		
	MW-103	Jun-20			0.00213	**2.61**				<0.00149	<0.0489	<0.00249	0.00522			<0.000657		
	MW-104	Apr-18			**0.0200**	0.0371				0.00170 JB	0.241 B	<0.000240	0.00414 J			<0.000380		
	MW-104	Apr-18	FD		**0.0213**	0.0346				0.00103 JB	0.231	<0.000240	0.00567			0.000732 J		
	MW-104	Oct-18			**0.0159**	0.0306				<0.00270	<0.0750	<0.00120	0.0152 JB			<0.00190		
	MW-104	Oct-18	FD		**0.0185**	0.0353				0.000631 J	<0.0150	0.000503 JB	0.0157			<0.000380		
	MW-104	Apr-19			**0.0120**	0.0337				<0.000540	0.0208 J	<0.000240	0.0248			<0.000380		
	MW-104	Apr-19	FD		**0.0122**	0.0208				0.000737 J	0.0171 JB	<0.000240	0.0250			<0.000380		
	MW-104	Oct-19			0.00508	0.0213				0.00295	0.0284 J	0.000394 JB	0.0230			<0.000380		
	MW-104	Oct-19	FD		0.00508	0.0211				0.000987 J	0.0260 J	0.000327 JB	0.0235			0.00280		
	MW-104	Jun-20			0.00181 J	0.0253				<0.00149	<0.0489	<0.00249	0.0188			<0.000657		
	MW-104	Jun-20	FD		0.00163 JB	0.0237				<0.00149	<0.0489	<0.00249	0.0181			<0.000657		
	MW-104	Oct-20			0.00203	0.0248				0.00191 J	0.370	<0.00249	0.0252 B			<0.000657		
	MW-104	Oct-20	FD		0.00192 J	0.0238				0.00210	0.312	<0.00249	0.0245			<0.000657		
	MW-105	Apr-18			**0.0220**	**4.29**				0.0165	**10.1**	**0.0326**	**0.285**			0.00123 JB		
	MW-105	Oct-18			0.00742	0.283				0.00246	0.848	0.000804 J	**0.216**			0.000508 J		
	MW-105	Apr-19			0.0100	0.185				0.00175 J	0.390	0.00174 J	0.125			<0.000380		
	MW-105	Oct-19			0.00355	0.106				0.00510	**1.09**	0.00257	**0.240**			0.00809		
	MW-105	Jun-20			0.00808	0.983				0.00172 J	0.456	<0.00249	0.0818			<0.000657		
	MW-105	Oct-20			**0.0123**	**8.29**				0.00278	0.411	<0.00249	0.138			<0.000657		
	MW-106	Apr-18			**0.0152**	0.0277				0.00136 JJ3J4	0.0688 J	0.00240	0.00677			0.000564 J		
	MW-106	Oct-18			**0.0165**	0.0397				0.00134 J	0.102	0.00291	0.00317 J			0.000436 J		
	MW-106	Apr-19			0.00725	0.0546				0.00142 J	0.438	0.00184 J	0.0113			<0.000380		
	MW-106	Oct-19			**0.0128**	0.0352				0.00208	0.0341 J	0.00187 J	0.0288			0.00324		
	MW-106	Jun-20			**0.0201**	0.0341				0.00229	0.224	0.00386 J	0.0118			0.000680 J		
	MW-106	Oct-20			**0.0255**	0.0306				0.00250	0.161	0.00411 J	0.00472 J			0.000967 J		
	MW-107	Oct-16			0.00388	1.30				0.000930 JB	0.158	0.000595 J	0.0896			<0.000380		
	MW-107	Apr-17			0.00143 J	1.99				<0.000540	**5.17**	0.000437 J	0.105			0.0145		
	MW-107	Apr-18			0.00157 J	**2.32**				<0.000540	**4.54**	0.000427 JB	0.146			<0.000380		
	MW-107	Apr-19			0.00174 J	**2.64**				0.00139 JB	**2.77**	0.000542 J	0.185			<0.000380		
	MW-109	Apr-18			0.00144 J	0.0441				<0.000540	0.0641 J	<0.000240	0.0265			0.00300		
	MW-109	Oct-18			0.00162 J	0.0472				<0.000540	0.0416 J	<0.000240	0.0340			0.000401 J		
	MW-109	Apr-19			0.00159 J	0.0454				0.00199 JB	0.0173 J	<0.000240	0.0588			<0.000380		
	MW-109	Oct-19			0.000754 J	0.0426				<0.000540	<0.0150	0.000432 JB	0.0699			0.0289		
	MW-109	Jun-20			0.00261	0.0574				<0.00149	<0.0489	<0.00249	0.0531			<0.000657		
	MW-109	Oct-20			0.00193 J	0.0713				<0.00149	<0.0489	<0.00249	0.0544			<0.000657		
	MW-110	Apr-18			0.00965	0.0887				0.00152 J	**1.26**	0.00123 J	**0.451**			<0.000380		
	MW-110	Oct-18			**0.0231**	0.0674				0.00155 J	**1.32**	0.00118 J	**1.60**			<0.000380		
	MW-110	Apr-19			**0.0270**	0.0684				0.00191 JB	0.852	0.000241 JB	**1.70**			<0.000380		
	MW-110	Oct-19			**0.0326**	0.0476				<0.000540	**1.28**	0.00101 JB	**2.01**			0.00411		
	MW-110	Jun-20			**0.0345**	0.0516				<0.00149	0.919	<0.00249	**1.92**			<0.000657		
	MW-110	Oct-20			**0.0386**	0.0453				<0.00149	0.995	<0.00249	**2.01**			<0.000657		
	MW-139	Oct-19			0.00960	0.0359				0.00112 J	**2.30**	0.00170 J	**1.98**			0.000503 J		
	MW-139	Jun-20			0.00587 B	0.0324				<0.00149	0.561	<0.00249	**1.72**			<0.000657		
	MW-139	Oct-20			0.00744	0.0321				<0.00149	0.608	<0.00249	**1.89**			<0.000657		
	RA-313	Apr-17																
	RA-313	Apr-18																
	RA-313	Apr-19																
	RA-313	Jun-20																

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	RW-4	Apr-17		0.00340	0.0732				<0.000540	0.192	0.000419 J	0.0261			<0.000380		
	RW-4	Apr-18		0.00293	0.0671				0.000673 J	0.0270 JB	0.000685 JB	0.0548			0.000499 JB		
	RW-4	Apr-19		0.00271	0.148				0.000959 JB	0.0510 J	0.000725 J	0.0379			0.000455 J		
	RW-4	Jun-20		0.00356	0.0676				<0.00149	0.238	<0.00249	0.133			<0.000657		
	RW-5R	Apr-15		0.00136 J	0.0259				<0.000540	0.0952 J	0.000336 J	0.0177			<0.000380		
	RW-5R	Apr-16		0.00183 J	0.0282				<0.00270	<0.0750	<0.00120	0.0191 J			<0.00190		
	RW-6	Apr-15		**0.0332**	1.66				<0.000540	**13.8**	0.000574 J	**0.280**			<0.000380		
	RW-6R	Apr-16		**0.0712**	0.480				<0.00270	**3.70**	<0.00120	**0.553**			<0.00190		
	RW-6	Apr-18		**0.0170**	1.94				0.00106 J	**1.59**	0.000764 JB	**0.298**			<0.000380		
	RW-6	Apr-19		0.00630	**6.89**				0.000826 JB	0.173	0.000482 J	0.156			<0.000380		
	RW-15C	Apr-17		**0.0274**	0.885				<0.000540	0.316	0.0116	**0.358**			0.000461 JB		
	RW-15C	Apr-18		**0.0239**	1.19				0.000699 J	0.264	0.000822 J	**0.372**			0.000836 J		
	RW-15C	Apr-19		**0.0135**	1.70				0.00534 B	0.473	0.00106 JB	**0.457**			0.00895		
South RO Field	MW-114	Apr-18		0.00226	0.0129				0.00708	0.0871 J	<0.000240	**0.900**			0.0105		
	MW-114	Oct-18		0.00225	0.0133				<0.000540	<0.0150	<0.000240	**0.867**			0.00985		
	MW-114	Apr-19		0.00215	0.0150				<0.000540	0.170	0.000421 J	**0.961**			0.00532		
	MW-114	Oct-19		0.00274	0.0141				<0.000540	<0.0150	<0.000240	**1.05**			0.00389		
	MW-114	Jun-20		0.00348	0.0145 J				<0.00149	<0.0489	<0.00249	**0.980**			0.00355		
	MW-114	Oct-20		0.00400	0.0131 J				<0.00149	<0.0489	<0.00249	**0.925**			0.00293		
	MW-115	Apr-18		0.00333	0.00824				<0.000540	0.0246 J	<0.000240	0.0564			0.00159 J		
	MW-115	Oct-18		0.00298	0.00719				<0.000540	<0.0150	<0.000240	0.0425			0.00413		
	MW-115	Apr-19		0.00395	0.0133				<0.000540	0.189	0.000523 J	0.123			0.00497		
	MW-115	Oct-19		0.00434	0.0136				<0.000540	0.184	0.000400 J	0.146			0.00131 J		
	MW-115	Jun-20		0.00388	0.00892 J				<0.00149	<0.0489	<0.00249	0.115			0.00483		
	MW-115	Oct-20		0.00435	0.0112 J				<0.00149	<0.0489	<0.00249	0.0983			0.00844		
	MW-116	Apr-18		0.00492	0.00839				<0.000540	0.0594 J	<0.000240	0.0226			0.00743		
	MW-116	Oct-18		0.00304	0.00833				<0.000540	<0.0150	<0.000240	0.0211			0.00475		
	MW-116	Apr-19		0.00390	0.0121				0.00124 JB	0.0431 J	<0.000240	0.0234			0.00466		
	MW-116	Oct-19		0.00309	0.00893				0.000765 J	0.0209 J	0.000619 JB	0.00907			0.00768		
	MW-116	Jun-20		0.00294	0.00939 J				<0.00149	0.161	<0.00249	0.0241			0.00730		
	MW-116	Oct-20		0.00300	0.00929 J				<0.00149	0.0902 J	<0.00249	0.0150 B			0.00619		
TEL	MW-49	Apr-18		0.00627	0.0565	0.740	<0.000160	<0.000260	<0.000540	0.321	0.00122 JB	0.197	<0.0000490	0.00655	0.000591 J	<0.000330	0.00110 J
	MW-49	Oct-18		0.00517	0.0506	0.693	<0.000160	<0.000260	<0.000540	0.0585 J	0.000826 J	**0.211**	<0.0000490	0.00660	0.000519 J	<0.000330	0.000439 J
	MW-49	Apr-19		0.00488	0.0541	0.729	<0.000160	<0.000260	<0.000540	0.0354 JB	0.000752 J	**0.209**	0.0000959 J	0.00773	<0.000380	<0.000330	0.000224 J
	MW-49	Oct-19		0.00532	0.0486	0.642	<0.000160	<0.000260	<0.000540	0.0155 JB	0.000821 JB	0.169	<0.0000490	0.00660 B	<0.000380	<0.000330	0.000786 J
	MW-49	Jun-20		0.00514	0.0552	0.638	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.147	<0.000100	0.00696	<0.000657	<0.00754	<0.000986
	MW-49	Oct-20		0.00538	0.0500	0.661	<0.000478	<0.000477	<0.00149	0.0526 J	<0.00249	**0.220**	<0.000100	0.00835	<0.000657	<0.00754	<0.000986
	TEL-1	Apr-18		**0.0132**	0.0140				0.0103	0.107	<0.000240	0.0532			<0.000380		
	TEL-1	Oct-18		**0.0173**	0.0171				0.00240	0.0675 J	<0.000240	0.0419			<0.000380		
	TEL-1	Apr-19		**0.0142**	0.0203				0.00480	0.158	0.000325 J	0.0425			<0.000380		
	TEL-1	Oct-19		**0.0136**	0.0158				0.00444 B	0.0598 JB	0.000418 JB	0.0365			<0.000380		
	TEL-1	Jun-20		**0.0116**	0.0152 J				0.00273	0.120	<0.00249	0.0315			<0.000657		
	TEL-2	Apr-18		**0.0183**	0.221				0.00202	0.0568 J	0.00114 J	0.0154			0.000522 J		
	TEL-2	Oct-18		**0.0152**	0.101				0.00151 J	0.0287 J	0.000727 J	0.0273			0.000520 J		
	TEL-2	Apr-19		**0.0117**	0.111				0.00208	0.0688 J	0.00130 J	0.0190			0.00137 J		
	TEL-2	Oct-19		**0.0115**	0.0914				0.00295 B	0.0484 JB	0.000814 JB	0.0281			0.000498 J		
	TEL-2	Jun-20		0.00826	0.131				0.00193 J	0.0517 J	<0.00249	0.0341			<0.000657		
	TEL-3	Apr-18		**0.0109**	0.0248				**0.334**	**1.47**	0.000726 J	0.0114			<0.000380		
	TEL-3	Apr-19		0.00228	0.0214				**0.0851**	0.336	0.00111 J	0.0142			0.000982 J		
	TEL-3	Oct-19		0.00161 J	0.0182				0.0248	0.112 B	0.000803 JB	0.0205			<0.000380		
	TEL-3	Oct-20		0.00434	0.0158 J				0.0275	0.158	<0.00249	0.0170			<0.000657		
	TEL-4	Apr-18		0.00733	0.0224				**0.593**	0.796	0.000795 J	**1.48**			<0.000380		
	TEL-4	Apr-18	FD	0.00695	0.0208				**0.741**	0.950	0.000918 J	**1.45**			0.000409 J		
	TEL-4	Oct-18		0.00130 J	0.0123				**0.274**	0.370	0.000418 J	**0.827**			<0.000380		
	TEL-4	Oct-18	FD	0.00160 J	0.0119				**0.293**	0.286	0.000413 J	**0.822**			<0.000380		
	TEL-4	Apr-19		0.00133 J	0.0122				**0.151**	0.319	0.000636 J	**0.944**			0.000600 J		
	TEL-4	Apr-19	FD	0.00181 J	0.0128				**0.147**	0.348	0.000616 J	**1.00**			<0.000380		
	TEL-4	Oct-19		0.00365	0.0158				**0.239**	0.360	0.00109 JB	**0.704**			0.000388 J		
	TEL-4	Oct-19	FD	0.00356	0.0163				**0.202**	0.322	0.000682 JB	**0.684**			0.000399 J		
	TEL-4	Jun-20		0.00632	0.0169 J				**0.103**	0.455	<0.00249	**1.17 V**			0.000712 J		
	TEL-4	Jun-20	FD	0.00618	0.0178 J				**0.125**	0.506	<0.00249	**1.19**			<0.000657		
	TEL-4	Oct-20		0.00923	0.0180 J				**0.106**	0.479	<0.00249	**1.24 V**			<0.000657		
	TEL-4	Oct-20	FD	0.00921	0.0181 J				**0.0522**	0.360	<0.00249	**1.19**			<0.000657		
Three Mile Ditch	MW-8	Apr-17		0.00678	0.0102				0.0259	0.111	<0.000240	**0.467**			0.00647		
	MW-8	Apr-18		0.00948	0.0110				**0.0627**	0.462	0.000387 J	**0.702**			0.0181		
	MW-8	Apr-19		0.00965	0.0134				**0.0651**	0.364	0.000715 J	**0.747**			0.0213		
	MW-8	Jun-20		0.00709	0.0155 J				0.00547 B	<0.0489	<0.00249	**0.808**			**0.0626**		
	MW-16	Apr-17		0.00498	0.0127				<0.000540	<0.0150	<0.000240	0.00510			0.0106		
	MW-16	Apr-18		0.00612	0.0157				<0.000540 J3J4	0.0436 J	<0.000240	**0.322**			0.00394		
	MW-16	Apr-19		0.00526	0.0129				<0.000540	0.0197 JB	0.000278 J	0.0793			0.00750		
	MW-16	Jun-20		0.00508	0.0161 J				<0.00149	<0.0489	<0.00249	0.116			0.0135		
	MW-20	Apr-17		0.00575	0.00980				<0.000540	<0.0150	<0.000240	0.00756			0.0188		
	MW-20	Apr-18		0.00700	0.0104				<0.000540	<0.0150	<0.000240	0.0197			0.0147		
	MW-20	Apr-19		0.00582	0.0110				<0.000540	<0.0150	0.000327 J	0.0134			0.00866		
	MW-20	Jun-20		0.00549	0.00996 J				<0.00149	<0.0489	<0.00249	0.00342 J			0.00505		
	MW-21	Apr-18		0.00656	0.00782				<0.000540	<0.0150	<0.000240	**0.290**			0.0284		
	MW-21	Oct-18		0.00537	0.0101				<0.000540	<0.0150	<0.000240	**0.738 O1V**			0.0331		
	MW-21	Apr-19		0.00538	0.00886				0.00133 JB	<0.0150	0.000323 J	0.138			0.0378		
	MW-21	Oct-19		0.00562	0.00881				<0.000540	<0.0150	<0.000240	**0.699**			0.0384		
	MW-21	Jun-20		0.00561	0.00916 J				<0.00149	<0.0489	<0.00249	**0.353**			**0.0521**		
	MW-21	Oct-20		0.00571	<0.00778				<0.00149	<0.0489	<0.00249	0.193			0.0429		
	MW-25	Apr-17		0.00300	0.0121				0.000842 J	0.0157 J	<0.000240	**0.507 V**			0.00254		
	MW-25	Apr-18		0.00338	0.0128				0.000687 J	0.0314 J	0.000330 J	**0.676 J3V**			0.00337		
	MW-25	Apr-19		0.00224	0.0135				0.000854 J	0.0348 JB	<0.000240	**0.439**			0.00299		
	MW-25	Jun-20		0.00216	0.0150 J				<0.00149	<0.0489	<0.00249	**0.906**			0.00318		
	MW-26	Apr-17		0.00335	0.00916				<0.000540	<0.0150	<0.000240	**0.560**			0.0232		
	MW-26	Apr-18		0.00426	0.00944				<0.000540 J3J4	<0.0150	0.000351 J	**0.513**			0.0238		
	MW-26	Apr-19		0.00326	0.00888				<0.000540	<0.0150	<0.000240	**0.521**			0.0226		
	MW-26	Jun-20		0.00335	0.00884 J				<0.00149	<0.0489	<0.00249	**0.295**			0.0196		
	MW-27	Apr-17		0.00216	0.0153				<0.000540	<0.0150	<0.000240	0.0158			0.00706		
	MW-27	Apr-18		0.00335	0.0150				0.000709 JB	0.183	0.000265 J	0.0539			0.0124		
	MW-27	Apr-19		0.00203	0.0158				<0.000540	<0.0150	<0.000240	0.0240			0.0127		
	MW-27	Jun-20		0.00228	0.0166 J				<0.00149	<0.0489	<0.00249	0.00890			0.0169		
	MW-46R	Apr-18		0.00428	0.0125				<0.000540	0.0570 J	0.000480 J	0.170			0.000882 J		
	MW-46R	Oct-18		0.00264	0.0119				0.000793 J	0.0221 J	<0.000240	0.107			0.00132 J		
	MW-46R	Apr-19		0.00406	0.0122				0.000561 JB	0.277 B	<0.000240	0.0964			0.00330		
	MW-46R	Oct-19		0.00276	0.0121				<0.000540	0.102	<0.000240	0.0684			0.00199 J		
	MW-46R	Jun-20		0.00285	0.0128 J				<0.00149	0.0754 J	<0.00249	0.0688			0.00120 J		
	MW-46R	Oct-20		0.00290	0.0110 J				<0.00149	0.0522 J	<0.00249	0.0720			<0.000657		
	MW-68	Apr-17		0.00244	0.0107				<0.000540	<0.0150	<0.000240	0.0824			0.00275		
	MW-68	Apr-18		0.00326	0.0119				0.00211 B	0.141	0.000658 J	0.0543			0.00780		
	MW-68	Apr-19		0.00215	0.0127				<0.000540	<0.0150	0.000318 J	0.00165 JB			0.0148		
	MW-68	Jun-20		0.00280	0.0155 J				<0.00149	<0.0489	<0.00249	<0.00132			0.0317		

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Table 4B - Summary of Groundwater Analytical Data - Total Metals

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	**Well ID**	**Date**	**Dup**															
Three Mile Ditch	MW-71	Apr-17		0.00387	0.00845	0.538	<0.000160	<0.000260	<0.000540	<0.0150	<0.000240	0.000841 J	<0.0000490	0.000916 J	0.0324	**0.0587**	0.0248
	MW-71	Apr-18		0.00500	0.00896	0.673	<0.000160	<0.000260	0.00106 J	<0.0150	<0.000240	0.000412 J	<0.0000490	0.00115 J	0.0321	**0.0594**	0.0255
	MW-71	Apr-19		0.00315	0.00901	0.670	<0.000160	<0.000260	0.000803 JB	0.0423 JB	<0.000240	0.00260 JB	<0.0000490	0.00130 J	0.0320	**0.0654**	0.0247
	MW-71	Jun-20		0.00391	0.00943 J	0.622	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.00111 J	0.0332	**0.0698**	0.0251
	MW-89	Apr-17		0.00657	0.0145				0.00102 J	<0.0150	<0.000240	0.0420			**0.0534**		
	MW-89	Apr-18		**0.0112**	0.0136				0.000638 JJ3J4	<0.0150	0.000617 J	**0.628**			0.00218		
	MW-89	Apr-19		0.00748	0.0140				0.000808 JB	0.0326 JB	0.000744 J	**0.439**			0.0299		
	MW-89	Jun-20		0.00857	0.0133 J				<0.00149	<0.0489	<0.00249	**0.579**			0.00476		
	NP-1	Apr-18															
	NP-1	Oct-18															
	NP-1	Apr-19															
	NP-1	Oct-19															
	NP-1	Jun-20															
	NP-1	Oct-20															
	NP-6	Apr-13															
	NP-6	Apr-15															
	NP-6	Apr-17															
	NP-6	Apr-19															
Upgradient	UG-1	Apr-17		0.00106 J	0.0135	0.548	<0.000160	<0.000260	0.000572 J	0.0561 J	<0.000240	0.00689	<0.0000490	0.00145 J	0.0100	0.0262	0.0118
	UG-1	Apr-18		0.00177 JB	0.0122	0.668	<0.000160	0.00130 J	<0.000540	<0.0150	<0.000240	0.000486 J	0.0000552 JB	0.00188 J	0.00692	0.0263	0.0153
	UG-1	Apr-19		0.00158 J	0.0165	0.727	<0.000160	0.000332 J	0.000624 JB	<0.0150	<0.000240	0.00109 J	<0.0000490	0.00226 B	0.0149	**0.0353**	0.0147
	UG-1	Jun-20		0.00139 J	0.0137 J	0.691	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.000984 J	0.0131	**0.0385**	0.0133
	UG-2	Apr-17		0.00197 J	0.0154	0.303	<0.000160	<0.000260	<0.000540	0.0172 J	<0.000240	0.0154	<0.0000490	0.00271	0.00572	0.0153	0.0154
	UG-2	Apr-18		0.00236 B	0.0142	0.303	<0.000160	<0.000260	<0.000540	0.0153 J	<0.000240	0.00678	0.0000684 JB	0.00188 J	0.00710	0.0131	0.0176
	UG-2	Apr-19		0.00227	0.0183	0.299	0.000295 J	0.000357 J	0.000732 JB	0.0286 J	0.00107 JB	0.0129	<0.0000490	0.00316 B	0.00766	0.0160	0.0174
	UG-2	Jun-20		0.00253	0.0141 J	0.274	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00395 J	<0.000100	0.00250	0.00616	0.0161 J	0.0185
	UG-3R	Apr-17		0.00161 J	0.0185	0.256	<0.000160	0.000465 J	<0.000540	0.0316 J	<0.000240	0.00182 J	<0.0000490	0.00225	0.00325	0.0129	0.00961
	UG-3R	Apr-18		0.00202 B	0.0170	0.470	<0.000160	<0.000260	<0.000540	0.0377 J	<0.000240	0.000713 J	<0.0000490	0.00104 J	0.00418	0.0124	0.0111
	UG-3R	Apr-19		0.00164 J	0.0183	0.223	<0.000160	<0.000260	0.000713 JB	<0.0150	<0.000240	0.00132 J	<0.0000490	0.000581 JB	0.00266	0.0160	0.00947
	UG-3R	Jun-20		0.00126 J	0.0205	0.173 J	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00389	0.0167 J	0.00867
	UG-4	Apr-17		0.00111 J	0.0164	**1.06**	<0.000160	<0.000260	<0.000540	0.0249 J	<0.000240	0.00935	<0.0000490	0.00143 J	0.0143	**0.0361**	0.00739
	UG-4	Apr-18		0.00177 JB	0.0158	**1.07**	<0.000160	<0.000260	<0.000540	0.0330 J	<0.000240	0.00117 J	0.0000571 JB	0.000467 J	0.0202	**0.0324**	0.00962 B
	UG-4	Apr-19		0.00128 J	0.0171	**1.07**	<0.000160	<0.000260	<0.000540	0.0596 J	<0.000240	0.00792	<0.0000490	0.000696 JB	0.0167	**0.0379**	0.00813
	UG-4	Jun-20		0.00105 J	0.0164 J	**1.02**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00403 J	<0.000100	0.00177 J	0.00925	**0.0357**	0.00757

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1, Tap Water Screening Level
WQCC Dom	NMED Groundwater standard for domestic exposure, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC
WQCC Irr	NMED Groundwater standard for irrigation exposure, 20.6.2.3103.C NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Cross-Gradient	KWB-13	Apr-17		526	180	0.803	1.18	200	**2390**	**3600**	**16.1**	<0.00180	
	KWB-13	Apr-18		558	136	0.704	1.66	227	**2470**	**3580**	**15.3**	<0.00180	
	KWB-13	Apr-19		630	125	0.605	1.69	220	**2470**	**3580**	**14.0**	<0.00180	
	KWB-13	Jun-20		598	121	0.791	2.10	169	**2430**	**3710**	**14.9**	<0.00180	
	MW-136	Apr-18		666	**352**	**1.61**	2.74	147	**2640**	**4270**	**10.3**	<0.00180	
	MW-136	Oct-18		689	**327**	**1.82**	3.52	148	**2610**	**4250**	7.86	0.0359	
	MW-136	Apr-19		688	**284 B**	**1.69**	2.83	144	**2680**	**4150**	4.12 J6	0.00264 J	
	MW-136	Oct-19		630	**280**	**1.73**	2.75	140	**2520**	**4100**	2.38	<0.00180	
	MW-136	Jun-20		631	**300**	**1.62**	2.53	139	**2370**	**4290**	**13.2**	<0.00180	
	MW-136	Oct-20		640	**290**	1.54	2.55	148	**2150**	**4180**	**14.4**	<0.00180	
	NP-5	Apr-13		465	**413**	**2.58**	<0.400	253	**3090**	**5980**	2.33		
	NP-5	Apr-15		448	**993**	**2.13**	0.484 J	209	**3030**	**6060 J**	1.38		
	NP-5	Apr-17		514	**444**	**1.63**	0.422 J	212	**3770**	**4810**	2.22		
	NP-5	Apr-19		529	**310**	**2.16**	0.320 J	206	**3370**	**5240**	1.06		
	RA-3156	Apr-17		337	**568**	0.668	2.41	292	**1080**	**2400**	0.330 J		
	RA-3156	Apr-18		341	**813**	0.470	2.63	444	**1020**	**2580**	<0.0197 J6		
	RA-3156	Apr-19		83.5	**807**	0.751	0.679 J	87.0	**1650**	**3240**	1.50		
	RA-3156	Jun-20		180	**280**	0.313	2.62	97.8	**603**	**1250**	<0.0500		
Evaporation Ponds	MW-1R	Apr-17		763	**2880**	0.736	5.11	1830	**3010**	**9180**	0.402 J		
	MW-1R	Apr-18		623 V	**2200**	0.679	4.56	1520 V	**2740**	**6900**	0.0640 J		
	MW-1R	Apr-19		407	**1160**	0.710	3.80	1050	**2000**	**4980**	<0.0197		
	MW-1R	Jun-20		540	**1430**	0.732	4.01	831	**2060**	**3200**	<0.0500		
	MW-2A	Apr-18		702	**6270**	1.35	5.75	4870	**5800**	**18800**	0.0470 J		
	MW-2A	Oct-18		512	**4270**	**1.89**	5.36	3110	**4430**	**13300 J4**	0.0330 J		
	MW-2A	Apr-19		652	**5600**	**1.93**	5.50	3930	**5430**	**15800**	<0.0197		
	MW-2A	Oct-19		585	**2180**	**2.94**	4.21	1470	**2860**	**7000**	0.171		
	MW-2A	Jun-20		487	**879**	**2.70**	3.28	610	**1730**	**3960**	<0.0500		
	MW-2A	Oct-20		292	**1240**	**2.96**	3.46	908	**1860**	**4770**	0.0609 J		
	MW-3	Apr-18		606	**1170**	**1.90**	4.99	916	**2420**	**5030**	0.249		
	MW-3	Apr-18	FD	626	**1150**	**1.87**	5.03	869	**2520**	**5040**	0.212		
	MW-3	Oct-18		591	**1110**	**1.91**	5.19	856	**2610**	**4370**	0.535		
	MW-3	Oct-18	FD	620	**1060**	**1.67**	5.74	832	**2440**	**4820 Q**	0.481		
	MW-3	Apr-19		579	**1140**	**1.96**	4.89	771	**2480**	**5510**	0.156		
	MW-3	Apr-19	FD	603	**1230**	**1.86**	4.92	774	**2530**	**5450**	0.157		
	MW-3	Oct-19		517	**1060**	**2.38**	7.63	840	**1680**	**4290**	<0.0197		
	MW-3	Oct-19	FD	540	**1190**	**2.53**	7.51	836	**1970**	**4950**	<0.0197		
	MW-3	Jun-20		553	**1280**	**2.40**	7.64	818	**2140**	**5200**	0.0662 JB		
	MW-3	Jun-20	FD	553	**1290**	**2.52**	7.54	827	**2260**	**4970 J4**	<0.0500		
	MW-3	Oct-20		514	**1250**	**1.97**	5.94	822	**1980**	**5250**	0.210		
	MW-3	Oct-20	FD	506	**939**	**1.69**	5.85	812	**1440**	**5090**	0.245 J6		
	MW-4A	Apr-18		428	**1350**	**1.99**	5.05	899	**1820**	**4170**	0.0240 J		
	MW-4A	Oct-18		415	**1300**	**1.65**	4.58	988	**1800**	**3880**	<0.0197 J6		
	MW-4A	Apr-19		418	**1450**	**1.82**	5.24	904	**1810**	**4940**	<0.0197		
	MW-4A	Oct-19		419	**1260**	**2.01**	5.80	855	**1380**	**4700**	0.0230 J		
	MW-4A	Jun-20		403	**1440**	**1.98**	4.72	962	**1890**	**4870**	<0.0500		
	MW-4A	Oct-20		415	**1350**	**2.31**	5.63	921	**1640**	**5000**	<0.0500		
	MW-4B	Apr-13		371	**928**	0.870	3.64	556	**1330**	**3660**	<1.00		
	MW-4B	Apr-15		367	**1110**	0.963	2.32	696	**1340**	**3410 J**	<0.0200		
	MW-4B	Apr-17		360	**1330**	0.985	2.55	758	**1410**	**3690**	<0.0197		
	MW-4B	Apr-19		442	**1320**	0.775	2.50	703	**1430**	**4370**	<0.0197		
	MW-5A	Apr-18		478	**3040**	**2.83**	7.82	2890	**6030**	**13700**	0.0530 J		
	MW-5A	Oct-18		415	**2800**	**1.80**	7.38	2620	**5720**	**11400**	<0.0197		
	MW-5A	Apr-19		511	**3620**	**3.03**	6.36	3740	**8110**	**14800**	<0.0197		
	MW-5A	Oct-19		494	**2760**	**3.63**	6.85	3450	**6170**	**13900**	0.138		
	MW-5A	Jun-20		286	**1810**	**3.40**	5.65	2040	**3550**	**7460**	<0.0500		
	MW-5A	Oct-20		374	**2110**	**3.84**	8.27	2280	**4220**	**9910**	<0.0500		
	MW-5B	Apr-13		473	**1840**	**2.20**	10.8	1600	**2950**	**7500**	2.93		
	MW-5B	Apr-15		482	**1590**	1.41	9.01	1580	**3510**	**5980**	<0.0200		
	MW-5B	Apr-17		420	**1560**	**1.73**	9.18	1650	**2590**	**6290**	0.0210 J		
	MW-5B	Apr-19		389	**1530**	**1.70**	9.69	1490	**2660**	**6370**	<0.0197		
	MW-5C	Apr-13		420	**639**	1.20	4.21	446	**1580**	**3620**	<1.00		
	MW-5C	Apr-15		427	**585**	0.910	3.97 J	485	**2020**	**3290**	<0.0200		
	MW-5C	Apr-17		383	**576**	0.971	3.90	500	**1740**	**3110**	<0.0197		
	MW-5C	Apr-19		390	**591**	0.896	4.11	450	**1540**	**3200**	<0.0197		
	MW-6A	Apr-17		353	**904**	**1.62**	1.38	770	**2080**	**4660**	<0.197		
	MW-6A	Apr-18		303	**763**	1.59	1.31	776	**1690**	**3330**	0.0800 J		
	MW-6A	Apr-19		340	**803**	1.38	1.38	696	**1700**	**3520**	<0.0197		
	MW-6A	Jun-20		290	**669**	1.55	1.18 J	670	**1670**	**3640**	<0.0500		
	MW-6B	Mar-13		530	**1370**	0.533	4.31	710	**1640**	**4480**	<1.00		
	MW-6B	Mar-13	FD	478	**1420**	0.814	4.87	753	**1690**	**4510**	<1.00		
	MW-6B	Apr-15		568	**1740**	0.669 J	5.09	873	**2280**	**4760**	<0.0200		
	MW-6B	Apr-17		418	**1250**	0.694	3.97	738	**1730**	**4150**	<0.197		
	MW-6B	Apr-19		462	**1140**	0.519	4.45 O1	682	**1460**	**4190**	<0.0197		
	MW-7A	Apr-18		358	**2080**	1.40	3.91	1580	**2670**	**5380**	0.140		
	MW-7A	Apr-18	FD	354	**2170**	1.41	3.89	1590	**2780**	**5430**	0.0580 J		
	MW-7A	Oct-18		343	**2070**	1.09	3.93	1580	**2840**	**6440**	<0.0197		
	MW-7A	Oct-18	FD	348	**2000**	1.10	4.24	1550	**2770**	**6530 Q**	<0.0197		
	MW-7A	Apr-19		345	**2480**	1.10	3.95	1560	**3610**	**6920**	<0.0197		
	MW-7A	Apr-19	FD	373	**1990**	1.20	4.05	1530	**2490**	**6930**	<0.0197		
	MW-7A	Oct-19		423	**2880**	1.46	5.56	2310	**3250**	**9100**	3.13		
	MW-7A	Oct-19	FD	413	**2970**	1.27	5.48	2110	**3370**	**9440**	2.88		
	MW-7A	Jun-20		345	**2000**	1.20	3.28	1560	**2670**	**6630**	<0.0500		
	MW-7A	Jun-20	FD	370	**1950**	1.18	3.54 J	1550	**2600**	**6580**	0.0594 J		
	MW-7A	Oct-20		327	**1770**	1.42	3.83	1470	**2130**	**6330**	<0.0500 J6		
	MW-7A	Oct-20	FD	315	**1550**	1.29	3.71 B	1550	**1870**	**6260**	<0.0500		
	MW-7B	Apr-13		545	**1030**	**3.09**	6.66	540	**1800**	**4280**	<1.00		
	MW-7B	Apr-15		556	**1060**	0.795	6.27	672	**2200**	**4640**	<0.0200		
	MW-7B	Apr-17		530	**1060**	0.966	6.71	652	**1750**	**4720**	0.0670 J		
	MW-7B	Apr-19		581	**1100**	0.823	6.70	581	**1910**	**4760**	<0.0197		
	MW-10	Apr-18		472	**1300**	0.857	3.75	977	**1920**	**3380**	0.0550 J		
	MW-10	Oct-18		454	**1300**	0.854	3.35	1060	**2100**	**3800**	<0.0197		
	MW-10	Apr-19		457	**1290**	0.907	3.58	925	**2000**	**5070**	<0.0197		
	MW-10	Oct-19		653	**1610**	1.06	3.61	1190	**2530**	**6090 J3**	<0.0197		
	MW-10	Jun-20		445	**1300**	0.933	3.25	982 V	**1930**	**4970**	<0.0500		
	MW-10	Oct-20		435	**1250**	0.903	3.30	949	**1710**	**5080**	<0.0500		
	MW-11A	Apr-18		1250	**9560**	0.601	20.1	5210	**3570**	**14900**	0.562		
	MW-11A	Oct-18		1110	**11000**	**3.15 J**	20.7	4520	**3140**	**17400**	<0.0197		
	MW-11A	Apr-19		1140	**9210**	1.02	18.8	4410	**3430**	**19100**	0.744		
	MW-11A	Oct-19		1060	**7880**	1.32	22.0	4280	**2760**	**17000**	<0.0197		
	MW-11A	Jun-20		1110	**8800**	0.806	19.9	4410	**3210**	**18400 J3J4**	<0.0500		
	MW-11A	Oct-20		1180	**8020**	0.454	20.2	5080	**2720**	**20200**	<0.0500		
	MW-11B	Mar-13		855	**6560**	<0.500	35.2	3340	**3030**	**15100**	<1.00		
	MW-11B	Apr-15		1070	**6000**	0.562	36.6	4040	**3860**	**12700**	<0.0200		
	MW-11B	Apr-17		979	**6050**	0.825	35.2	3660	**2890**	**14000**	<0.197		
	MW-11B	Apr-19		935	**6410**	0.899	32.2	3410	**3340**	**11600**	<0.197		

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
Evaporation Ponds	MW-15	Apr-17		285	**612**	1.58	4.31	447	**1100**	**2640**	0.485 J	
	MW-15	Apr-18		477	**1040**	**1.70 J5**	5.35	657	**1720**	**3580**	0.758	
	MW-15	Apr-19		614	**1670**	1.44	5.73	667	**2770**	**4720**	1.58	
	MW-15	Jun-20		480	**1200**	0.610	5.52	563	**1440**	**3830**	<0.0500	
	MW-18A	Apr-18		683	**6680**	**2.44**	42.1	4260	**6780**	**13100**	0.0720 J	<0.00180
	MW-18A	Oct-18		674	**6810**	1.25	42.6	3820	**7270**	**17900**	<0.0197	0.00485 J
	MW-18A	Apr-19		756	**6360**	**1.85**	46.1	3870	**6740**	**17800**	<0.0197	<0.00180
	MW-18A	Oct-19		619	**5490**	**3.14**	40.1	3670	**5780**	**16000 J3**	<0.0197	<0.00180
	MW-18A	Jun-20		574	**5140**	**2.52**	33.6 O1	3030 O1V	**5780**	**15500**	<0.0500	<0.00180
	MW-18A	Oct-20		616	**4600**	**2.72**	39.3	3380	**4820**	**16800**	<0.0500	<0.00180
	MW-18B	Apr-13		592	**803**	1.10	6.32	474	**1870**	**4060**	<1.00	
	MW-18B	Apr-15		581	**763**	0.931	5.91	460	**1840**	**4410**	0.0280 J	
	MW-18B	Apr-17		576	**860**	0.797	5.91	481	**2070**	**4080**	<0.0197	
	MW-18B	Apr-19		807	**919**	0.727	8.43	506	**2030**	**4690**	<0.0197	
	MW-22A	Apr-18		473	**1780**	0.687	3.67	1290	**2270**	**4860 J3**	0.0680 J	
	MW-22A	Apr-18	FD	468	**1840**	0.738	3.57	1310	**2380**	**4320 J3**	0.0660 J	
	MW-22A	Oct-18		444	**1650**	0.677	3.37	1360	**2370**	**5730**	<0.0197	
	MW-22A	Oct-18	FD	473	**1650**	0.584	3.81	1250	**2190**	**5930 Q**	<0.0197	
	MW-22A	Apr-19		426	**1650**	0.761	3.58	1330	**2300**	**5940**	0.0230 J	
	MW-22A	Apr-19	FD	431	**1700**	0.739	3.38	1190	**2230**	**6040**	<0.0197	
	MW-22A	Oct-19		969	**5760**	0.681	6.27	3060	**3450**	**13300**	0.418	
	MW-22A	Oct-19	FD	990	**5660**	0.293	6.42	2970	**3520**	**13100**	0.414	
	MW-22A	Jun-20		575	**4500**	0.900	4.36	2610	**3310**	**11900**	0.0816 JB	
	MW-22A	Jun-20	FD	566	**4450**	1.02	4.20	2270	**3330**	**11300 J4**	<0.0500	
	MW-22A	Oct-20		458	**2770**	0.821	3.75	1920	**2450**	**7820**	0.0711 J	
	MW-22A	Oct-20	FD	453	**2290**	0.795	3.71 B	2240	**2060**	**8210**	<0.0500	
	MW-22B	Apr-13		530	**1470**	0.619	4.48	932	**2240**	**5460**	<1.00	
	MW-22B	Apr-15		477	**1400**	0.823	4.02 J	1150	**2170**	**5590**	<0.0200	
	MW-22B	Apr-17		396	**1400**	0.771	4.15	1150	**2080**	**5670**	0.408 J	
	MW-22B	Apr-19		414	**1300**	0.818	4.30	985	**2170**	**5480**	<0.197	
	MW-70	Apr-18		766	**1490**	0.694	5.51	825	**2720**	**5810**	0.0660 J	
	MW-70	Oct-18										
	MW-70	Apr-19		843	**1280**	0.623	5.99	760	**2320**	**5770**	<0.0197	
	MW-70	Oct-19										
	MW-70	Jun-20		764	**1400**	0.577	5.22	764	**2510**	**5360 J3**	<0.0500	
	MW-70	Oct-20										
	MW-72	Apr-17		670	**3460**	**6.25**	9.30	2510	**2950**	**9140**	1.56	
	MW-72	Apr-18		707	**3540**	**5.82**	8.82	2490	**3010**	**8800**	2.99	
	MW-72	Apr-19		645	**2880**	**5.61**	7.71	1850	**2740**	**8500**	2.67	
	MW-72	Jun-20		627	**2830**	**5.71**	6.56	1730	**2810**	**8060**	0.645	
	MW-73	Apr-17		571	**2390**	**2.11**	2.55	2690	**3940**	**8880**	0.313	
	MW-73	Apr-18		589	**2350**	**1.95**	2.48	2490	**4020**	**8360**	0.348	
	MW-73	Apr-19		600	**2590**	**2.95**	2.60	2330	**3350**	**9180**	4.66	
	MW-73	Jun-20		561	**2540**	**1.67**	2.29	2410	**3990**	**8860**	<0.0500	
	MW-74	Apr-18		600	**1950**	**7.01**	37.3	2280	**3700**	**7860**	6.72	
	MW-74	Oct-18		534	**1560**	**8.06**	42.9	2310	**4870**	**9420**	**171**	
	MW-74	Apr-19		582	**1400**	**8.15**	36.9	2250	**4650**	**9760**	**52.2**	
	MW-74	Oct-19		542	**1490**	**7.85**	33.4	1990	**3390**	**5720**	<0.0197	
	MW-74	Jun-20		507	**1540**	**7.75**	32.7	2260	**4190**	**7180**	**48.4**	
	MW-74	Oct-20		554	**1800**	**8.34**	35.8	2000	**3610**	**8370**	7.45	
	MW-75	Apr-18		340	**1470**	**7.64**	17.9	1350	**2000**	**4670**	1.00 J6	
	MW-75	Oct-18		345	**1370**	**7.35**	18.0	1410	**2100**	**5890 J4**	<0.0197	
	MW-75	Apr-19		348	**1410**	**7.71**	17.4	1420	**2010**	**5790**	1.56	
	MW-75	Oct-19		362	**1360**	**6.63**	15.9	1320	**1940**	**5320**	<0.0197	
	MW-75	Jun-20		366	**1470**	**7.22**	16.6	1340	**2080**	**6110**	<0.0500	
	MW-75	Oct-20		362	**1520**	**7.66**	17.9	1470	**2010**	**5680**	<0.0500	
	MW-76	Apr-18		468	**1220**	**2.86**	26.5	1200	**2300**	**5240**	0.0790 J	
	MW-76	Oct-18		464	**1130**	**2.95**	25.6	1130	**2420**	**4130**	<0.0197	
	MW-76	Apr-19		439	**1090**	**3.02**	24.9	955	**2210**	**5620**	<0.0197	
	MW-76	Oct-19		483	**1150**	**3.03**	28.8	991	**2220**	**5270**	<0.0197	
	MW-76	Jun-20		454	**1150**	**2.89**	26.2	975	**2270**	**5620**	<0.0500	
	MW-76	Oct-20		426	**1220**	**3.14**	25.7	975	**2090**	**5330**	<0.0500	
	MW-77	Apr-17		534	**393**	**2.43**	67.1	1280	**4900**	**6950**	<0.197	
	MW-77	Apr-18		521	**310**	**2.56**	68.8	1240	**3770**	**7230**	0.109	
	MW-77	Apr-19		491	**335**	**3.20**	66.0	1230	**4370**	**7850**	<0.0197	
	MW-77	Jun-20		488	**428**	**2.53**	64.2	1070	**3950**	**7430**	<0.0500	
	MW-78	Apr-17		537	98.0	**9.91**	17.4	366	**2640**	**4290**	0.372 J	
	MW-78	Apr-18		331	239	**15.3**	19.2	393	**1800**	**3730**	2.70	
	MW-78	Apr-19		343	20.4	**17.2**	13.4	81.7	**1580**	**3150**	5.82	
	MW-78	Jun-20		584	51.7	**13.9**	16.6	184	**2580**	**4460**	<0.0500	
	MW-79	Apr-18		586	**1700**	**6.56**	7.90	1130	**2240**	**5390 J3**	2.16	
	MW-79	Oct-18		679	**2020**	**6.21**	7.84	1100	**2350**	**7700**	1.44	
	MW-79	Apr-19		636	**1940**	**7.01**	7.82	1250	**2470**	**6510**	2.08	
	MW-79	Oct-19		818	**2410**	**4.70**	7.08	1160	**2320**	**7470**	<0.0197	
	MW-79	Jun-20		768	**2150**	**5.09**	6.82	1160	**2540**	**7550**	<0.0500	
	MW-79	Oct-20		726	**2180**	**5.58**	7.03	1200	**2600**	**6470**	<0.0500	
	MW-80	Apr-17		759	**2530**	**3.59**	3.53	1230	**2640**	**7920**	2.63	
	MW-80	Apr-18		506	**1190**	**2.97**	7.13	1110	**2310**	**5180 J3**	0.461	
	MW-80	Apr-19		559	**1180**	**3.03**	2.72	768	**2260**	**5120**	0.355	
	MW-80	Jun-20		620	**1210**	**2.19**	2.99	680	**1980**	**4990**	<0.0500	
	MW-81	Apr-17		560	**1370**	**7.55**	9.28	1260	**3050**	**6880**	**80.5**	
	MW-81	Apr-18		542	**1270**	**6.69**	17.9	1170	**2340**	**5600**	**19.8**	
	MW-81	Apr-19		527 O1V	**1210**	**6.81**	7.33	969 V	**2190**	**5740**	**14.7**	
	MW-81	Jun-20		441	**1050**	**5.73**	5.49	908	**1990**	**4750**	3.54	
	MW-82	Apr-17		347	**1500**	**11.4**	8.92	1400	**2380**	**5630**	0.0820 J	
	MW-82	Apr-18		391	**1420**	**11.4**	9.36	1510	**2350**	**5460**	0.734	
	MW-82	Apr-19		395	**1360**	**11.4**	8.60	1300	**2250**	**5730**	3.50	
	MW-82	Jun-20		422	**1430**	**9.31 J**	8.75	1150	**2180**	**5560**	<0.0500	
	MW-83	Apr-18		309	**1360 J3**	**4.80**	28.2	965	**2220 P1**	**4190**	0.0680 J	
	MW-83	Oct-18		562	221	**5.14**	48.6	363	**4240**	**4860**	0.495	
	MW-83	Apr-19		555	69.9	**2.81**	56.3	236	**6770**	**6470**	3.70	
	MW-83	Oct-19		536	**354**	**4.14**	64.3	370	**4520**	**7520**	<0.0197	
	MW-83	Jun-20		544	**314**	**4.63**	48.9	319	**4190**	**6810**	1.31	
	MW-83	Oct-20		349	**957**	**4.48**	31.8	659	**2380**	**5040**	<0.0500	
	MW-84	Apr-18		595	**1710**	**4.49**	7.29	1630	**4220**	**9640**	0.0630 J	
	MW-84	Oct-18		574	**1750**	**4.62**	6.34	1560	**4420**	**9300**	<0.0197	
	MW-84	Apr-19		616	**1650**	**4.26**	7.12	1540	**3990**	**9140**	0.308	
	MW-84	Oct-19		594	**1730**	**5.44**	6.51	1450	**4200**	**9080**	<0.0197	
	MW-84	Jun-20		568	**1480**	**6.24**	7.06	1400	**4710**	**9700**	<0.0500	
	MW-84	Oct-20		579	**1670**	**6.29**	6.23	1350	**4910**	**10800**	<0.0500	
	MW-86	Jun-20		544	**555**	**8.20**	8.40	806	**4170**	**8130**	<1.00	<0.0900
	MW-86	Oct-20		535	**671**	**6.03**	6.70	947	**3100**	**7830**	<0.0500	0.00261 J

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
Evaporation Ponds	MW-87	Apr-18		677	**4150**	1.48	24.2	2930	**4570**	**11600**	0.0610 J	
	MW-87	Oct-18										
	MW-87	Apr-19		723	**4460**	1.13	24.7	2800	**5150**	**13700**	<0.0197	
	MW-87	Oct-19										
	MW-87	Jun-20		596	**4070**	1.41	20.7	2690	**4840**	**12500**	<0.0500	
	MW-87	Oct-20										
	MW-88	Apr-18		421 V	**1650**	1.15	3.09	1110	**2360**	**4640**	0.0750 J	
	MW-88	Oct-18										
	MW-88	Apr-19		426	**1740**	1.36	3.28	1280	**2700**	**6650**	<0.0197	
	MW-88	Oct-19										
	MW-88	Jun-20		406	**1510**	0.951	2.83	997	**2040**	**5240**	<0.0500	
	MW-88	Oct-20										
	MW-120	Apr-18		556	**1760**	**2.79**	6.26	1310	**2670**	**6480**	0.0720 J	
	MW-120	Oct-18		583 O1V	**1670**	**3.66**	2.60	1320	**3320**	**5380**	0.168	
	MW-120	Apr-19		571	**2220**	**2.91**	2.92	1500	**4500**	**6610**	0.150	
	MW-120	Oct-19		562	**1390**	**4.02**	2.70	1210	**2830**	**4680 J3**	<0.0197	
	MW-120	Jun-20		455	**1260**	**2.90**	2.23	992	**2530**	**5500**	<0.0500	
	MW-120	Oct-20		608	**1540**	**3.81**	2.67	1200	**2870**	**7000**	<0.0500	
	MW-121	Apr-18		594	**999**	**4.29**	2.88	859	**2820**	**5430**	1.15 J6	
	MW-121	Oct-18		579	**833**	**5.05**	3.25	716	**2820**	**5800**	1.06	
	MW-121	Apr-19		616	**963**	**4.45**	3.14	696	**2530**	**5490**	0.497	
	MW-121	Oct-19		554	**770**	**5.48**	3.41	637	**2530**	**5090**	1.11	
	MW-121	Jun-20		560	**752**	**5.05**	2.71	613	**2790**	**4890**	0.0855 J	
	MW-121	Oct-20		595	**690**	**4.87**	3.34	665	**2400**	**5180**	<0.0500	
	MW-122	Apr-18		368	**1170**	**3.20**	3.73	1050	**1980**	**4830**	0.137	
	MW-122	Oct-18		324	**845**	**2.32**	3.48	742	**1730**	**3860**	<0.0197	
	MW-122	Apr-19		413	**1110**	**2.74**	3.91	866	**2040**	**4750**	0.0650 J	
	MW-122	Oct-19		340	**719**	**2.10**	3.54	617	**1260**	**3660**	0.0270 J	
	MW-122	Jun-20		413	**1470**	**2.58**	4.03	1080	**2450**	**6070**	<0.0500	
	MW-122	Oct-20		353	**940**	**2.54**	3.78	737	**1590**	**4220**	<0.0500	
	MW-123	Apr-18		513	**1570**	1.13	5.10	1080	<0.0774	**4490**	0.0660 J	
	MW-123	Oct-18		519	**1390**	0.894	3.49	1150	**2040**	**4380**	<0.0197	
	MW-123	Apr-19		501	**1420**	1.16	3.63	961	**2180**	**5600**	<0.0197	
	MW-123	Oct-19		690	**2030**	1.17	4.26	1190	**2250**	**6720**	<0.0197	
	MW-123	Jun-20		513	**1420**	1.04	3.54	984	**2140**	**5380**	<0.0500	
	MW-123	Oct-20		524	**1390**	1.07	3.55	1100	**1920**	**5460**	<0.0500	
	MW-124	Apr-18		786	**3110**	1.02	6.67	1820	**3700**	**8980**	<0.0197	
	MW-124	Oct-18		798 V	**3700**	0.848	7.16	1730	**4440**	**9520**	<0.0197	
	MW-124	Apr-19		867	**3120**	0.884	6.86	1730	**3560**	**11200**	<0.0197	
	MW-124	Oct-19		753	**3140**	1.12	6.86	1630	**3500**	**9980**	<0.0197	
	MW-124	Jun-20		785	**3510**	1.01	6.50 J	1700	**4500**	**7780**	<0.0500	
	MW-124	Oct-20		758	**2490**	1.03	6.57	1840	**3030**	**9940**	<0.0500	
	OCD-1R	Apr-18		493	**1870**	**3.48**	3.79	1740	**3100**	**6760**	0.599	
	OCD-1R	Oct-18		514	**1610**	**2.61**	3.64	1310	**2760**	**4720**	0.206	
	OCD-1R	Apr-19		403	**1230**	**3.09**	3.03	977	**2250**	**5000**	0.485	
	OCD-1R	Oct-19		600	**1820**	**2.93**	4.13	1660	**3670**	**7760**	0.243	
	OCD-1R	Jun-20		599	**1640**	**2.60**	3.82	986	**2350**	**5850**	0.0815 JB	
	OCD-1R	Oct-20		500	**1070**	**2.78**	3.50	1070	**2020**	**5560**	0.0603 J	
	OCD-2A	Apr-18		530	**1160**	0.813	4.88	825	**1990**	**4530**	0.187	
	OCD-2A	Oct-18										
	OCD-2A	Apr-19		573	**1300 V**	0.874	4.73	758	**2290 V**	**5440**	0.185	
	OCD-2A	Oct-19										
	OCD-2A	Jun-20		609	**1290**	0.853	4.93	755	**2240**	**5020**	<0.0500	
	OCD-2A	Oct-20										
	OCD-3	Apr-18		842	**2110**	0.845	14.7	1070	**2750**	**6220**	0.194	
	OCD-3	Oct-18										
	OCD-3	Apr-19		347	**907**	1.15	8.85	688	**1610**	**3850**	0.0700 J	
	OCD-3	Oct-19										
	OCD-3	Jun-20		375	**585**	1.10	7.17	446	**1580**	**3150**	0.0713 JB	
	OCD-3	Oct-20										
	OCD-4	Apr-18		847	**4550**	0.759	34.0	2540	**3430**	**9500**	0.101	
	OCD-4	Oct-18										
	OCD-4	Apr-19		818	**4400**	0.820	32.4	5380	**3240**	**11300**	0.0360 JJ6	
	OCD-4	Oct-19										
	OCD-4	Jun-20		840	**5000**	0.990	33.5	2580	**3300**	**12700**	<0.0500	
	OCD-4	Oct-20										
	OCD-5	Apr-18		882	**5050**	0.765	40.7	2990	**3440**	**11300**	0.0860 J	
	OCD-5	Oct-18		834	**5130**	0.324	36.0	2690	**3570**	**11200**	<0.0197	
	OCD-5	Apr-19		843	**4840**	0.790	38.9	2580	**3300**	**12400**	<0.0197	
	OCD-5	Oct-19		843	**5240**	0.628	35.7	3010	**3080**	**11900**	<0.0197	
	OCD-5	Jun-20		824	**4770**	0.950	37.3	2660	**3490**	**10700 J4**	<0.0500	
	OCD-5	Oct-20		850	**4120**	0.702	35.8	3010	**2690**	**12100**	<0.0500	
	OCD-6	Apr-18		881	**4510**	**2.15**	16.6	2800	**2960**	**10800**	1.06	
	OCD-6	Oct-18		850	**4910**	**1.98**	16.1	2600	**3110**	**14200 J4**	<0.0197	
	OCD-6	Apr-19		931	**4710**	**2.26**	17.0	2820	**2760**	**11400**	0.837	
	OCD-6	Oct-19		754	**3180**	**2.84**	11.3	2050	**2950**	**9760**	0.0320 J	
	OCD-6	Jun-20		918	**4880**	**2.04**	15.0	2710	**3160**	**10800**	<0.0500	
	OCD-6	Oct-20		922	**4850**	**2.27**	15.8	2720	**2870**	**11400**	<0.0500	
	OCD-7AR	Apr-18		603	**2400**	**2.77**	5.90	2790	**3830**	**8960**	0.0620 J	
	OCD-7AR	Oct-18		612	**2460**	**2.45**	6.30	2520	**3680**	**10500 J4**	<0.0197	
	OCD-7AR	Apr-19		662	**2700**	**2.30**	6.31	2600	**3950**	**10300**	0.711	
	OCD-7AR	Oct-19		602	**2680**	**2.80**	6.22	2420	**3640**	**10200**	<0.0197	
	OCD-7AR	Jun-20		619	**2990**	**2.13**	6.10	2520	**3990**	**9740**	<0.0500	
	OCD-7AR	Oct-20		643	**2680**	**2.75**	6.37	2590	**3640**	**10800**	<0.0500	
	OCD-7B	Mar-13		552	**867**	1.33	12.2	650	**2270**	**4670**	<1.00	
	OCD-7B	Apr-15		641	**910**	0.852	11.9	685	**2580**	**4520**	<0.0200	
	OCD-7B	Apr-17		564	**960**	1.05	11.0	629	**2100**	**4540**	<0.0197	
	OCD-7B	Apr-19		590	**874**	0.839	11.7	678	**2260**	**4760**	<0.0197	
	OCD-8A	Apr-18		680	**2630**	**2.87**	8.52	2090	**3730**	**9840**	0.181	<0.00180
	OCD-8A	Oct-18		664	**2750**	**1.73**	9.02	2260	**4160**	**9500**	<0.0197	<0.00180
	OCD-8A	Apr-19		683	**2690**	**2.47**	8.77	2200	**3800**	**10500**	<0.0197	<0.00180
	OCD-8A	Oct-19		1010	**12000**	**2.02**	17.4	6590	**6010**	**29600**	0.275	<0.00180
	OCD-8A	Jun-20		665	**5120**	**2.01**	8.85	3440	**4510**	**12600**	<0.0500	<0.00180
	OCD-8A	Oct-20		758	**5270**	**2.36**	10.8	3710	**4260**	**15600**	<0.0500	<0.00180
	OCD-8B	Apr-13		716	**2180**	0.980	8.75	1330	**2880**	**7400**	<1.00	
	OCD-8B	Apr-15		680	**2020**	0.934	9.51	1520	**2910**	**7110**	0.0233 J	
	OCD-8B	Apr-17		660	**2030**	0.925	9.07	1800	**2620**	**7390**	0.0320 J	
	OCD-8B	Apr-19		715 V	**3230**	0.774	9.61	1490 V	**4950**	**7690**	<0.0197	
Field East of Refinery	KWB-1A	Apr-18		511	**354**	1.21	1.00	272	**2930**	**4690**	0.341	<0.00180
	KWB-1A	Oct-18		457	**339**	1.48	1.53 JB	251	**2670**	**4060**	0.219	<0.00180
	KWB-1A	Apr-19		538	**319**	1.26	1.20	291	**2580**	**4580**	0.446	<0.00180
	KWB-1A	Oct-19		466	**332**	1.46	0.954 J	258	**2660**	**4240**	0.101	<0.00180
	KWB-1A	Jun-20		465	**271**	1.33	0.854 J	234	**2600**	**4490**	0.142	<0.00180
	KWB-1A	Oct-20		476	**266**	1.33	0.994 JB	245	**2430**	**4320**	0.0862 J	<0.00180

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
Field East of Refinery	KWB-1C	Apr-13		474	**380**	1.03	5.68	161	**2150**	**4420**	1.75	
	KWB-1C	Apr-15		619	**1160**	**25.3**	1.23	210	**2920**	**5340**	0.180	
	KWB-1C	Apr-17		560	**508**	1.25	1.36	267	**2860**	**5000**	0.0350 JP1	
	KWB-1C	Apr-19		533	**317**	1.16	1.39	274	**2550**	**4680**	0.629	
	KWB-7	Oct-17		345	**354**	0.599	0.230 J	268	**907**	**3080**	<0.0197	<0.00180
	KWB-7	Oct-18		326	**360**	0.754	0.419 JB	248	**1120**	**2630**	<0.0197 J6	<0.00180 P1
	KWB-7	Jun-20		330	**458**	0.915	<0.534	275	**834**	**2810**	<0.0500	<0.00180
	KWB-7	Oct-20		371	**330**	0.794	<2.67	263	**1260**	**3180**	0.0590 J	<0.00180 J6
	KWB-8	Oct-16		251	**579**	0.467	0.351 J	443	**701**	**3120**	0.0380 JB	<0.00900
	KWB-8	Apr-17		237	**574**	0.623	0.414 J	320	442	**2400**	0.0510 J	<0.00180
	KWB-8	Oct-17		273	**913**	0.467	0.411 J	462	417	**3270**	<0.985	<0.00180
	KWB-8	Oct-20		301	**398**	0.694	<0.534	546	**1660**	**4440**	<1.00	<0.0180
	KWB-10R	Apr-17		134	230	1.57	0.521 J	131	0.475 J	**1130**	<0.0197	
	KWB-10R	Oct-17		138	186	1.39	0.453 J	123	3.08 J	**1080**	0.440	
	KWB-10R	Apr-18		138	183	1.35	0.430 J	122	<0.0774	**1060**	0.0250 J	
	KWB-10R	Oct-18		130	188	1.33	0.836 JB	110	<0.0774	**1040**	<0.0197	
	KWB-11A	Apr-18		461	**849**	0.567	0.856 J	335	**1060**	**3570**	4.51	<0.00180
	KWB-11A	Oct-18		433	**786**	0.851	1.17 B	359	**1220**	**3410**	0.0410 J	<0.00180
	KWB-11A	Apr-19		453	**744**	0.626	0.831 J	308	**1100**	**3380**	0.679	<0.00180
	KWB-11A	Jun-20		408	**676**	0.753	0.800 J	319	**1180**	**3180**	0.0536 J	<0.00180
	KWB-11A	Oct-20		396	**541**	0.652	0.676 J	306	**1090**	**2930**	0.414	<0.00180
	KWB-11B	Apr-18		497	**300**	0.418	2.21	91.8	**1580**	**2650**	3.32	<0.00180
	KWB-11B	Oct-18		484	**314**	0.399	2.65 B	86.8	**1580**	**2620**	3.33	<0.00180
	KWB-11B	Apr-19		516	**342**	0.359	2.19	87.2	**1500**	**2560**	3.31	<0.00180
	KWB-11B	Oct-19		498	**329**	0.447 J	2.25	87.0	**1540**	**2620**	2.69	<0.00180 J6
	KWB-11B	Jun-20		515	**369**	0.453	2.24	97.1	**1710**	**2880**	3.34	<0.00180
	KWB-11B	Oct-20		509	**365**	0.395	<2.67	100	**1380**	**3130**	3.03	<0.00180
	KWB-12A	Oct-18		475	92.4	0.439	0.696 J	120	**1890**	**2850**	9.14	<0.00180
	KWB-12A	Oct-19		480	111	0.597	0.614 JB	122	**2210**	**3270**	8.01	<0.00180
	KWB-12A	Jun-20		519	115	0.587	1.46 J	135	**2270**	**3490**	7.15	<0.00180
	KWB-12A	Oct-20		541	129	0.537	1.07 JB	133	**2020**	**3520**	6.85	<0.00180
	KWB-12B	Apr-18		571	121	0.346	0.699 J	150	**2390**	**3560**	7.78	<0.00180
	KWB-12B	Apr-18	FD	581	129	0.377	0.745 J	144	**2280**	**3480**	7.88	<0.00180
	KWB-12B	Oct-18		507	104	0.312	0.739 J	128	**1330**	**3340**	8.52	<0.00180
	KWB-12B	Oct-18	FD	538	106	0.307	0.653 J	129	**1660**	**3380** J3	8.26	<0.00180
	KWB-12B	Apr-19		606	111	0.327	0.752 J	151	**2140**	**3600**	7.48	<0.00180
	KWB-12B	Apr-19	FD	549	110	0.328	0.723 J	134	**2080**	**3580**	7.81	<0.00180
	KWB-12B	Oct-19		527	114	0.425	0.575 JB	129	**2230**	**3830** J3	7.10	<0.00180
	KWB-12B	Oct-19	FD	533	113	0.417	0.621 J	134	**2280**	**3620**	7.15	<0.00180
	KWB-12B	Jun-20		537	120	0.441	0.673 J	130	**2460**	**3790**	**11.5**	<0.00180
	KWB-12B	Jun-20	FD	525	114	0.343	0.742 J	126	**2210**	**3600**	8.27	<0.00180
	KWB-12B	Oct-20		578	130	0.386	0.656 JB	141	**2210**	**3820**	6.35	0.00596
	KWB-12B	Oct-20	FD	533	126	0.395	0.642 J	141	**2140**	**3760**	7.25	0.0565
	KWB-P4	Apr-13										
	KWB-P4	Apr-15										
	KWB-P4	Apr-17										
	KWB-P4	Apr-19										
	MW-57	Apr-18		506	185	**2.22**	1.57	315	**2430**	**3660** J3	7.42	
	MW-57	Oct-18		536	159	**1.91**	1.28	386	**2220**	**4850**	**25.6**	
	MW-57	Apr-19		590	152	1.58	3.30	259	**1700**	**3160**	4.05	
	MW-57	Oct-19		638	**482**	**2.91**	2.35	429	**3160**	**5720**	**12.7**	
	MW-57	Jun-20		568	131	**2.63**	1.21 J	388	**3190**	**4840**	**13.8**	
	MW-57	Oct-20		529	135	**1.99**	2.97	287	**2140**	**4040**	4.83	
	MW-58	Oct-17		235	249	1.26	0.553 J	116	13.1	**1340**	<0.0197	<0.00180
	MW-58	Apr-18		215	207	1.37	0.290 J	98.5	2.59 J	**1250**	<0.0985	<0.00180
	MW-58	Oct-18		176	151	1.06	1.20	74.3	56.9	**1040**	<0.394	<0.00180 J3J6
	MW-58	Oct-19		229	**294**	1.33	2.06	70.3	1.49 JB	**1140**	<0.0197	<0.00180
	MW-111	Apr-18		242	**421**	0.830	0.158 J	240	435	**1630**	<0.0197	
	MW-111	Oct-18		203	**412**	1.46	0.588 JB	221	331	**1810**	<0.0197	
	MW-111	Apr-19		340	**375**	0.957	1.83	209	322	**2000**	<0.0197	
	MW-111	Oct-19		212	**429**	1.38	0.214 J	239	317	**2070**	<0.0197	
	MW-111	Jun-20		251	**409**	1.08	1.11 J	206	372	**1970**	<0.0500	
	MW-112	Nov-14		190	230	1.00	0.310 J	190	5.40	**1200**	<0.0200	
	MW-113	Apr-18		318	174	0.515	0.538 J	164	**985**	**2210**	0.0350 J	
	MW-113	Apr-18	FD	329	191	0.521	0.629 J	160	**1070**	**2150**	<0.0197	
	MW-113	Oct-18		309 V	177	0.499	0.557 JB	156 V	**1060**	**2010**	<0.0197	
	MW-113	Oct-18	FD	327	186	0.542	0.555 J	161	**895**	**2050**	<0.0197	
	MW-113	Apr-19		332	172	0.451	0.746 J	163	**997**	**2440**	<0.0197 J6	
	MW-113	Apr-19	FD	329 V	178	0.449	0.633 J	160 V	**1020**	**2070**	<0.0197	
	MW-113	Oct-19		299	211	0.593	0.377 JB	164	**1180**	**2050**	<0.0197	
	MW-113	Oct-19	FD	306	198	0.611	0.419 J	162	**971**	**2380**	<0.0197 J6	
	MW-113	Jun-20		317	192	0.519	0.598 J	159	**1210**	**2440**	<0.0500	
	MW-113	Jun-20	FD	313	184	0.605 J	<0.534	152	**958**	**2460**	<0.0500	
	MW-113	Oct-20		274	177	0.527	<0.534	158	**773**	**2200**	0.199	
	MW-113	Oct-20	FD	280	185	0.536	<2.67	177	**786**	**2210**	0.128	
	MW-125	Apr-18		548 V	**337**	1.32	1.28	234 V	**2680**	**3900** J3	0.213	
	MW-125	Oct-18		534	**284**	0.995	1.31	211	**2300**	**3910**	0.440	
	MW-125	Apr-19		549	**322**	1.25	1.23	206	**2860**	**4290**	0.457	
	MW-125	Oct-19		517	**304**	1.20	1.30	216	**3040**	**4480**	0.788 J5	
	MW-125	Jun-20		543	**330**	1.19	1.41 J	221	**2950**	**4500**	0.212 J5	
	MW-125	Oct-20		541	**271**	1.10	1.42 JB	221	**2270**	**4350**	0.0919 J	
	MW-126A	Apr-18		383	245	0.881	0.548 J	200	**1780**	**3350**	<0.0197	
	MW-126A	Oct-18		308	185	0.899	1.72 JB	179	**1310**	**2420**	0.0850 J	
	MW-126A	Apr-19		382	191	0.757	0.547 JB	138	**1350**	**2540**	<0.0197	
	MW-126A	Oct-19		325	136	0.937	0.670 J	152	**1330**	**2330**	<0.0197 J5	
	MW-126A	Jun-20		357	198	0.869	<0.534	152	**1590**	**2680**	<0.0500	
	MW-126A	Oct-20		396	210	0.706	<0.534	189	**1510**	**3150**	<0.0500	
	MW-126B	Apr-18		534	**266**	0.764	2.36	202	**2310**	**3680**	0.436	
	MW-126B	Oct-18		561	**264**	0.930	3.07	213	**2290**	**3610**	0.639	
	MW-126B	Apr-19		590	**263**	0.629	2.80	219	**2060**	**3430**	0.381	
	MW-126B	Oct-19		545	**273**	0.779	2.31	198 V	**2250**	**4180**	0.364	
	MW-126B	Jun-20		539	**272**	0.784	2.27	210	**2440**	**4010**	0.414	
	MW-126B	Oct-20		562	**256**	0.705	2.36	195	**2140**	**3990**	0.429	
	MW-127	Oct-17		262	231	0.993	1.46	142	**776**	**1970**	0.146	
	MW-127	Apr-18		245	225	0.997	0.279 J	148	**677**	**2010**	<0.0985	
	MW-127	Oct-18		240	219	0.979	1.29 JB	135	**670**	**1940**	<0.0197	
	MW-127	Apr-19		267	208	0.855	0.438 JB	163	**612**	**1990**	<0.0197	
	MW-128	Oct-17		186	200	1.29	0.354 JB	107	248	**1370**	<0.0197	
	MW-128	Apr-18		181	175	1.23	0.764 J	115	207	**1280**	<0.0197	
	MW-128	Oct-18		161 V	170	1.13	0.412 J	97.3 O1V	147	**1650**	0.0230 JJ6	
	MW-128	Apr-19		181	173	1.06	0.725 J	115	126	**1300**	<0.0197	
	MW-129	Apr-16		170	**300**	1.10	0.331 J	210	44.1	**1520**	<0.197	
	MW-129	Oct-16		162	**293**	1.13	0.270 J	198	44.1	**1340**	0.0770 JB	
	MW-129	Apr-17		163	**300**	1.02	0.334 J	199	44.1	**1250**	<0.197 J5	
	MW-129	Apr-18		162	**282**	1.04	0.251 J	201	52.6	**1270**	<0.0197	

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
Field East of Refinery	MW-130	Apr-18		256	235	0.841	0.644 J	299	**999**	**2230**	1.87	
	MW-130	Oct-18		239	237	0.792	0.611 J	273	**985**	**2020 J4**	1.97	
	MW-130	Apr-19		269	228	**1.81**	0.712 J	289	**940**	**2470 J4**	1.81	
	MW-130	Oct-19		250	243	0.913	0.789 J	275	**1000**	**2170**	0.777	
	MW-130	Jun-20		247	208	0.828	0.656 J	285	**972**	**2390**	0.861	
	MW-130	Oct-20		242	188	0.758	0.648 JB	285	**882**	**2430**	0.959	
	MW-131	Apr-17		151	**285**	0.773	0.275 J	153	10.3	**1230**	<0.197	
	MW-131	Oct-17		149	**284**	0.807	0.200 J	149	15.5	**1290**	<0.0197	
	MW-131	Oct-19		145	**288**	0.845	0.251 J	150	19.7	**1210**	<0.0197	
	MW-131	Jun-20		153	**283**	0.865	<0.534	163	24.7	**1270**	<0.0500	
	MW-133	Nov-14		200	170	1.10	0.460 J	140	140	**1300**	<0.0200	
	MW-133	Apr-15		163	174	1.19	0.323 J	122	116	**1190**	<0.200	
	MW-134	Apr-18		555	**441**	1.11	1.65	270	**2790**	**4480**	3.89	
	MW-134	Apr-18	FD	574 V	**464**	1.08	1.71	271 V	**2760**	**4430**	3.85	
	MW-134	Oct-18		514	**392**	0.956	1.50	243	**1950**	**5090**	3.83	
	MW-134	Oct-18	FD	546	**405**	0.947	1.60	241	**2170**	**5460**	1.52	
	MW-134	Apr-19		582	**417**	1.31	1.89	283	**3060**	**4960**	3.42	
	MW-134	Apr-19	FD	563	**403**	1.31	1.70	263	**2840**	**5250**	3.53	
	MW-134	Oct-19		511	**396**	1.37	1.48	243	**3140**	**4710**	2.67	
	MW-134	Oct-19	FD	542	**398**	1.42	1.54	249	**2780**	**4960**	2.55	
	MW-134	Jun-20		515	**370**	1.16	1.51 J	234 V	**2910**	**4870**	1.73 J5	
	MW-134	Jun-20	FD	516	**363**	1.45 J	1.43 J	239	**2530**	**4960**	<0.0500	
	MW-134	Oct-20		501	**349**	1.01	1.67 JB	243	**2700**	**4950**	1.37	
	MW-134	Oct-20	FD	503	**366**	1.32 J	1.64 J	251	**2530**	**4970**	1.39	
	MW-135	Apr-18		493	**765**	1.09	0.904 J	599	**2530**	**5020**	**32.8**	
	MW-135	Oct-18		484	**716**	0.985	1.15 JB	573	**2730**	**5070**	**35.9**	
	MW-135	Apr-19		608	**652**	0.954	1.00	667	**2780**	**5780**	**29.5**	
	MW-135	Oct-19		513	**547**	1.20	0.744 JB	542	**2820**	**5240**	**13.4**	
	MW-135	Jun-20		542	**542**	1.14	0.801 J	594	**2940**	**5600**	**16.0**	
	MW-135	Oct-20		538	**504**	1.13	<2.67	621	**2970**	**5460**	**10.9**	
	MW-145	Oct-20										
	MW-145	Oct-20	FD									
	MW-146	Oct-20										
	MW-147	Oct-20										
	MW-148	Oct-20										
	RA-4196	Apr-18		379	131	0.354	2.22	97.9	**1290**	**2070**	<0.0197	
	RA-4196	Oct-18		345	119	0.291	1.98	90.5	**935**	**1960**	<0.0197	
	RA-4196	Apr-19		370	112	0.309	2.34	90.6	**1060**	**1920**	<0.0197	
	RA-4196	Oct-19		363	131	0.299	1.96	89.2	**1250**	**2160**	<0.0197	
	RA-4196	Jun-20		365	126	0.324	2.17	90.1	**1330**	**2290**	<0.0500	
	RA-4196	Oct-20		382	123	0.348	2.36	98.7	**1250**	**2340**	0.842 J6	
	RA-4798	Apr-18		238 V	62.9	0.408	1.98	41.4	**783**	**1340**	0.878	
	RA-4798	Oct-18		335	110	0.317	1.97	83.1	**1270**	**2110**	1.16	
	RA-4798	Apr-19		257	60.1	0.355	2.16	46.5	**726**	**1340**	1.02	
	RA-4798	Oct-19		366	130	0.339	1.91	93.8	**1260**	**1950**	1.14	
	RA-4798	Jun-20		449	163	0.321	2.30	117	**1620**	**2820**	1.50	
	RA-4798	Oct-20		356	104	0.358	2.36	87.6	**1080**	**2200**	1.18	
	RW-12R	Apr-17		392	189	0.623	0.293 J	152	**1740**	**2420 J3**	<0.197	
	RW-12R	Apr-18		378	155	0.700	0.220 J	171	**1400**	**2400**	<0.0197	
	RW-12R	Apr-19		369 V	154	0.609	0.408 JB	164 V	**1180**	**2450**	<0.0394	
	RW-12R	Jun-20		337	143	0.716	<0.534	158	**1300**	**2750**	<0.0500	
	RW-13R	Apr-16		202	222	0.691	0.346 J	167	341	**1190**	0.0460 J	
	RW-13R	Apr-18		242	207	0.650	0.378 J	183	525	**1700**	0.0260 JP1	
	RW-18A	Apr-17		504	176	**2.51**	1.09	141	**2870**	**4400**	1.90	
	RW-18A	Apr-18		491	206	**1.82**	0.832 J	132	**2750**	**3940**	0.408	
	RW-18A	Apr-19		549	199	**1.94**	0.832 J	130	**2390**	**3970**	0.286	
	RW-18A	Jun-20		515	211	**2.03**	0.990 J	120	**2490**	**4280**	0.460	
	RW-20	Apr-15		228	**256**	0.530	<0.180	228	125	**1430**	<0.200	
	RW-22	Apr-15		184	**402**	0.860	0.319 J	274	78.4	**1680**	<0.200	
NCL	MW-18	Apr-17		486	77.5	**3.44**	13.9	65.0	**1970**	**3420**	**51.0**	<0.00180
	MW-18	Apr-18		472	154	1.59	3.05	90.2	**1820**	**2580**	**37.9**	<0.00180
	MW-18	Apr-19		536	86.7	**2.04**	7.60	76.6	**1910**	**3310**	**32.6**	<0.00180
	MW-18	Jun-20		421	154	**1.61**	1.66 J	58.7	**1510**	**2870**	**18.3**	<0.00180
	MW-45	Apr-18		651	**523**	**1.62**	6.27	371	**2590**	**4480**	0.0220 J	<0.00180
	MW-45	Oct-18		624	**447**	1.36	5.03	372	**2680**	**3840**	<0.0197	0.00258 J
	MW-45	Apr-19		670	**462**	1.24	7.13	390	**2580**	**4760**	0.0470 JJ6	<0.00180
	MW-45	Oct-19		588	**441**	**1.73**	5.54	375	**2530**	**4710**	0.0260 J	<0.00180
	MW-45	Jun-20		574	**413**	1.54	4.80	339	**2490**	**4480**	<0.0500	0.00225 J
	MW-45	Oct-20		577	**429**	**1.70**	4.70	359	**2350**	**4970**	<0.0500	<0.00180
	MW-53	Apr-16		459	**346**	1.06	1.42 J	161	**1340**	**2890**	**25.3**	
	MW-53	Apr-17		340	222	0.904	1.12	130	**1330**	**2290**	**15.6**	
	MW-53	Apr-18		315	72.9	1.13	1.12 B	118	**1250**	**1860**	1.58 J6	
	MW-53	Apr-19		259	59.6	1.30	1.17	88.4	**1100**	**1880**	0.290	
	MW-53R	Oct-20		298	66.7	1.11	4.08	69.1	**955**	**1920**	<0.0500	
	MW-54A	Apr-18		373 V	186	0.955	0.324 JB	61.7	**746**	**1650**	<0.0197	
	MW-54A	Oct-18		359	181	0.898	0.215 J	60.3	**821**	**1810**	<0.0197	
	MW-54A	Apr-19		335	185	0.957	0.196 J	54.1	**778**	**1890**	<0.0197	
	MW-54A	Oct-19		356	212	1.03	0.292 JB	61.1	**833**	**2060**	0.154	
	MW-54A	Jun-20		366	198	0.809	<0.534	55.5	**838**	**2030**	<0.0500	
	MW-54A	Oct-20		374	196	0.913	<0.534	60.8	**768**	**1990**	<0.0500 J5	
	MW-54B	Apr-13		345	176	<0.500	1.16	48.8	**747**	**2050**	<1.00	
	MW-54B	Apr-15		307	166	0.613	0.767 J	48.0	**752**	**1890 J**	0.0276 J	
	MW-54B	Apr-17		317	127	0.617	1.18	54.5	**1040**	**1840**	0.100 J	
	MW-54B	Apr-19		319	140	0.634	0.811 J	50.5	**818**	**1870**	0.0410 J	
	MW-55	Apr-18		455	**523**	1.58	0.838 J	214	**1770**	**3670**	1.41	<0.00180
	MW-55	Oct-18		447	**412**	1.59	1.04	227	**1810**	**3340**	2.86	<0.00180
	MW-55	Apr-19		519	**520**	**1.62**	0.897 J	229	**1930**	**3900**	2.28	<0.00180
	MW-55	Oct-19		414	**538**	1.58	0.749 J	235	**1610**	**3640**	0.419	<0.00180
	MW-55	Jun-20		410	**580**	1.55	0.672 J	225	**1540**	**3480**	0.0643 J	<0.00180
	MW-55	Oct-20		333	**505**	1.30	0.842 JB	228	**949**	**3010**	<0.0500	<0.00180
	MW-56	Apr-17		501 V	**453**	1.00	2.10	338 V	**2070**	**4100**	3.93	
	MW-56	Apr-18		485	242	1.25	2.14	252	**2000**	**3080**	<0.0197	
	MW-56	Apr-19		475	221	1.06	1.99	212	**1890**	**3560**	<0.0197	
	MW-56	Jun-20		496	219	1.08	1.70 J	142	**1990**	**3520**	<0.0500	
	MW-108	Apr-18		426	71.0	**2.68**	3.17	137	**1790**	**2730 J3**	<0.394	
	MW-108	Oct-18		300	62.0	**1.64**	0.996 J	98.1	**1080**	**2260**	<0.985	
	MW-108	Apr-19		239	37.6	1.60	1.18	73.3	**790**	**2080**	<0.985	
	MW-108	Oct-19		244	23.4	**1.84**	0.725 J	60.8	**802**	**1940**	<0.394	
	MW-108	Jun-20		157	17.9	**1.63**	<0.534	45.5	365	**1270**	<5.00	
	MW-108	Oct-20		139	15.8	1.48	<0.534	46.8	221	**1150**	<0.0500	
	NCL-31	Apr-18		325	53.0	1.39	0.422 J	97.4	**1600**	**2100**	0.0940 J	
	NCL-31	Oct-18		382	35.3	1.55	1.02	110	**2100**	**2860**	<0.0197	
	NCL-31	Apr-19		323	32.1	1.34	0.459 J	97.6	**1520**	**2910**	<0.0197	
	NCL-31	Oct-19		419	20.6	**2.73**	3.06	83.2	**2240**	**3570**	2.46	
	NCL-31	Jun-20		308	21.3	1.36	<0.534	65.4	**1600**	**2580**	<0.0500	
	NCL-31	Oct-20		290	28.6	1.23	<0.534	69.7	**1360**	**2460**	<0.0500	

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
NCL	NCL-32	Apr-18		425	130	1.51	3.41	116	**1450**	**2450**	2.72 J6	
	NCL-32	Oct-18		447	104 B	1.23	3.24	120	**1570**	**2270**	5.11	
	NCL-32	Apr-19		442	105	1.26	3.35	116	**1480**	**2730**	5.87	
	NCL-32	Oct-19		431	98.8	1.28	3.19	114	**1840**	**2880**	5.62	
	NCL-32	Jun-20		472	90.7	1.36	3.12	107	**1730**	**2940**	6.45	
	NCL-32	Oct-20		483	90.7	1.27	3.47	118	**1640**	**3040**	5.82	
	NCL-33	Apr-18		473	**486**	**2.63**	5.70	122	**870**	**2180**	<0.0197	
	NCL-33	Oct-18		454	**466**	**2.47**	5.35	128	**809**	**1880**	<0.0197	
	NCL-33	Apr-19		430	**483**	**2.12**	4.92	145	595	**1840**	0.890	
	NCL-33	Oct-19		547	**964**	**2.34**	5.54	157	**1090**	**3120**	<0.0197	
	NCL-33	Jun-20		714	**692**	**2.44**	5.60	166	**1540**	**3890**	0.0547 J	
	NCL-33	Oct-20		688	**667**	**2.64**	6.43	178	**1340**	**3960**	<0.0500	
	NCL-34A	Apr-18		276	**323**	1.36	1.32	113	85.2	**1520**	<0.197	
	NCL-34A	Oct-18		270	**289**	1.21 J3J5	1.25	111	117	**1710**	<0.394	
	NCL-34A	Apr-19		251 V	**262**	1.37	1.11	107 V	42.6	**1370**	<0.394	
	NCL-34A	Oct-19		235	245	1.38	1.15	116	119	**1470**	0.110	
	NCL-34A	Jun-20		283	**260**	1.31	1.13 J	104	234	**1680**	<5.00	
	NCL-44	Apr-18		361	144	**1.88**	2.44	129	**1280**	**2200**	<0.0197 J3J6	
	NCL-44	Oct-18		376	146	1.60	2.33	131	**1330**	**2340**	0.0260 JJ6	
	NCL-44	Apr-19		371	138	1.48	2.39	131	**1230**	**2640**	<0.0197 J6	
	NCL-44	Oct-19		356	185	**1.67**	2.32	131	**1430**	**2740**	0.142	
	NCL-44	Jun-20		373	141	**1.66**	2.15	135	**1290**	**2700**	<0.0500	
	NCL-44	Oct-20		358	126 B	**1.63**	2.29	142	**1170**	**2730**	<0.0500	
	NCL-49	Apr-18		522	169	0.640	0.736 JB	145	**2070**	**2560**	7.75	
	NCL-49	Apr-18	FD	525	171	0.651	0.995 JB	147	**2070**	**3060**	7.85	
	NCL-49	Oct-18		485	143	0.565 B	0.689 J	130	**2050**	**3370**	3.59	
	NCL-49	Oct-18	FD	448	144	0.572 B	0.635 J	122	**2040**	**3190**	3.59	
	NCL-49	Apr-19		438	127	0.658	0.761 J	123	**1910**	**2490**	5.63	
	NCL-49	Apr-19	FD	450	129	0.653	0.701 J	124	**1830**	**2440**	5.66	
	NCL-49	Oct-19		474	137	0.740	0.736 J	129 V	**1910**	**3240**	6.39	
	NCL-49	Oct-19	FD	440	134	0.722	0.642 J	126 V	**1970**	**3390**	7.44	
	NCL-49	Jun-20		486	128	0.609	0.686 J	133	**1910**	**3350**	9.98	
	NCL-49	Jun-20	FD	472	128	0.613	0.652 J	135	**1920**	**3350**	9.95	
	NCL-49	Oct-20		487	135 B	0.606	0.692 JB	135	**1830**	**3380**	**10.1**	
	NCL-49	Oct-20	FD	482	135 B	0.600	0.675 JB	133	**1820**	**3430**	10.0	
North Refinery	MW-23	Apr-18		112	**450**	**1.88**	1.47	472	10.9	**2080**	<0.0197	
	MW-23	Oct-18		104	**418**	1.49	1.41	429	10.8	**1830**	<0.0197	
	MW-23	Apr-19		97.5	**444**	**1.70**	1.12	482	18.9	**2000**	<0.0197	
	MW-23	Oct-19		95.6	**428**	1.59	1.27	410	18.7	**2020**	<0.0197	
	MW-23	Jun-20		96.4	**410**	1.42	1.10 J	426 V	15.6	**1970**	<0.500	
	MW-23	Oct-20		96.8	**408**	1.19	1.29 J	459	7.39	**1990**	<0.0500	
	MW-29	Apr-18		501	**332**	1.29	1.61	298	**2120**	**3910**	<0.0197	
	MW-29	Oct-18		344	**263**	0.953	1.08	324	**1450**	**2990**	<0.0197	
	MW-29	Apr-19		617	**331**	**1.61**	1.98	360	**2790**	**5300**	<0.0197	
	MW-29	Oct-19		519	**351**	**2.05**	2.08	357	**2810**	**4180**	<0.0197	
	MW-29	Jun-20		396	**383**	**1.71**	2.03	356	**1890**	**3610**	<0.0500	
	MW-29	Oct-20		336	**418**	1.47	1.90 J	333 V	**1430**	**3530**	<0.0500	
	MW-39	Apr-18		72.9	131	**3.57**	0.331 J	1090	**1130**	**3020**	<0.0197	
	MW-39	Oct-18		51.5	95.9	**3.62**	0.295 J	779	**770**	**2490**	<0.0197	
	MW-39	Apr-19		52.6	111	**4.21**	0.164 J	891	**1000**	**2580**	<0.0197	
	MW-39	Oct-19		45.8	86.8	**4.26**	0.245 J	771	**929**	**2590**	<0.0197	
	MW-39	Jun-20		61.8	97.7	**3.45**	<0.534	721	**821**	**2410**	<0.0500	
	MW-39	Oct-20		63.8	91.5	**3.28**	<0.534	655	**686**	**2260**	<0.0500	
	MW-40	Apr-17		474	156	**1.76**	1.62	110	**1550**	**3190**	<0.197	
	MW-40	Apr-18		425	141	**1.80**	1.41	107	**1440**	**2390**	<0.985	
	MW-40	Apr-19		450	106	1.52	1.39	107	**1400**	**2600 J3**	<0.394	
	MW-40	Jun-20		374	88.4	**1.88**	1.30 J	90.4	**1380**	**2430**	<0.500	
	MW-41	Apr-17		224	**328**	0.936	0.415 J	379	**1200**	**2890**	<0.197	
	MW-41	Apr-18		329	**682**	0.934	0.571 J	624	**1500**	**4060**	<0.0197	
	MW-41	Apr-19		238	**721**	0.884	0.590 J	624	**1140**	**4110**	<0.394	
	MW-41	Jun-20		282	**875**	1.00	0.653 J	828	**1780**	**4930**	<0.0500	
	MW-42	Apr-17		222	**406**	0.831	0.421 J	462	**1100**	**3410**	0.416 JP1	
	MW-42	Apr-18		241	**372**	0.984	0.433 J	445	**1180**	**2990 J3**	0.0310 JJ6	
	MW-42	Apr-19		233	**319**	0.780	0.449 J	425	**1010**	**2590**	<0.394	
	MW-42	Jun-20		246	**336**	0.851	<0.534	358	**1020**	**3310**	<2.50	
	MW-43	Apr-18		159	**697**	**1.93**	1.11	604	357	**3110**	<0.985	<0.180
	MW-43	Oct-18		155	**636**	**1.61**	1.01	483	311	**2900**	<0.985	<0.180
	MW-43	Apr-19		152	**639**	**1.71**	0.923 J	491	444	**2610**	<0.394	<0.0180
	MW-43	Oct-19		205	**662**	**1.66**	0.961 J	406	479	**2120**	<0.985	<0.0180 J4
	MW-43	Jun-20		141	**547**	1.36	0.828 J	341	198	**2210**	<0.250	<0.0360
	MW-43	Oct-20		141	**550**	1.09	0.896 J	350	102	**2150**	<0.0500	<0.0180
	MW-59	Apr-17		467	184	1.13	0.519 J	134	**1870**	**3160**	<0.197	
	MW-59	Apr-18		492	180	1.31	0.507 J	151	**1680**	**2760**	<0.0197 J6	
	MW-59	Apr-19		475	173	1.10	0.468 J	153	**1400**	**3110**	<0.0197	
	MW-59	Jun-20		366	201	1.33	<0.534	184	**1340**	**2900**	<0.0500	
	MW-60	Apr-18		444	221	0.974	0.769 J	233	**2080**	**3850**	<0.0197 J6	<0.0180
	MW-60	Apr-18	FD	447	231	0.969	0.746 J	218	**1980**	**3510**	<0.0197	<0.180
	MW-60	Oct-18		432	231	1.00	0.836 J	227	**2030**	**3020**	0.0640 JP1	0.00291 J
	MW-60	Oct-18	FD	432	230	0.978	0.750 J	223	**1730**	**4100**	0.0810 J	<0.0180
	MW-60	Apr-19		448	**275 B**	1.06	0.766 J	258	**2380**	**3870**	<0.985	<0.00180
	MW-60	Apr-19	FD	429	**269 B**	0.901	0.703 J	250	**2300**	**4060**	<0.985	<0.00180
	MW-60	Oct-19		401	250	0.972	0.420 J	191	**2200**	**2930 J3**	<0.197	<0.0180
	MW-60	Oct-19	FD	402	**273**	0.936	0.445 JB	184 V	**2040**	**3320 J3**	<0.197	<0.0180
	MW-60	Jun-20		418	206	0.778	<0.534	178	**1770**	**3720**	<2.50	<0.0360
	MW-60	Jun-20	FD	424	219	1.18 J	<0.534	176	**1660**	**3790**	<0.500	<0.0360
	MW-60	Oct-20		418	202	0.715	<0.534	189	**1510**	**3560**	0.203	<0.0180
	MW-60	Oct-20	FD	401	219	1.21 J	<0.534	190	**1780**	**3660**	<0.0500	<0.0180
	MW-61	Apr-18		289 V	**299**	1.55	1.24	293 V	**862**	**2200**	<0.394	
	MW-61	Oct-18		257	**279**	1.46	2.99 JB	258	**797**	**2180**	<0.985	
	MW-61	Apr-19		288	**322**	1.43	0.885 J	317	**725**	**2320**	<0.197	
	MW-61	Oct-19		402	**412**	**2.05**	2.49	234	**885**	**2690**	<0.985	
	MW-61	Jun-20		292	**471**	1.09	0.933 J	299	541	**2570**	<5.00	
	MW-61	Oct-20		246	**339**	1.06	0.820 JB	302	532	**2110**	<0.0500	
	MW-62	Apr-18		338	**266**	**1.73**	1.36	360	**793**	**2330**	<0.394	
	MW-62	Oct-18		259	**264**	**1.91**	2.22 JB	270	500	**2100**	<0.985	
	MW-62	Apr-19		292	**266**	1.56	1.15	310	556	**2280**	<0.0197	
	MW-62	Oct-19		271	**285**	1.60	1.12	255 O1V	593	**2290**	<0.985	
	MW-62	Jun-20		282	**280**	1.19	0.973 J	235	524	**2290**	<2.50	
	MW-62	Oct-20		304	**296**	1.08	1.11 JB	241	531	**2370**	<0.0500	
	MW-62R	Oct-20		304	**311**	0.806	3.38	152	571	**2240**	<0.0500	
	MW-67	Oct-17		207	**305**	0.568	0.500 JB	200	388	**1740**	<0.0985	<0.00180
	MW-67	Apr-18		220	**328**	0.636	0.573 JB	245	404	**1660**	<0.197	<0.180
	MW-67	Oct-18		240	221	0.611	0.636 J	202	493	**1580**	<0.0197	<0.00180
	MW-67	Apr-19		202	**302**	0.637	0.538 J	225	447	**1630**	<0.0197	<0.00180

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
North Refinery	MW-90	Apr-18		300	166	**2.11**	1.16 B	200	**1620**	**2510**	<0.197	
	MW-90	Oct-18		305	150	**2.32**	1.31	167	**1630**	**2990**	<0.197	
	MW-90	Apr-19		321	167	**1.99**	1.21	172	**1900**	**2710**	0.558 J	
	MW-90	Oct-19		434	79.1	**5.45**	1.73	109	**2540**	**3480**	0.0330 J	
	MW-90	Jun-20		331	173	**2.25**	1.13 J	142	**1790**	**3120**	<2.50	
	MW-90	Oct-20		293	210	1.05	0.913 J	171	**1280**	**2910**	<0.0500	
	MW-91	Apr-18		440	167	1.31	0.513 JB	40.0	**961**	**2170** J3	<1.97	
	MW-91	Oct-18		433	221	1.27	0.639 J	35.2	**966**	**2820**	<0.985	
	MW-91	Apr-19		460	**295**	1.27	0.468 J	38.9	**915**	**3290**	<1.97	
	MW-91	Oct-19		451	**422**	1.29	0.520 J	39.6	**1020**	**2430**	<0.197	
	MW-91	Jun-20		478	**501**	1.19	<0.534	36.7	**813**	**2830**	<10.0	
	MW-92	Apr-16		130 O1	**415**	1.30	1.73 J	450 O1V	24.1	**2310**	0.602 J	
	MW-92	Oct-16		134	**539**	**1.63**	2.02	454	14.6	**2150**	<0.985	
	MW-93	Apr-17		489	192	**2.38**	2.97	167	**1430**	**2930**	<0.197	
	MW-93	Apr-18		537	193	**2.39**	3.55	191	**1400**	**2760**	<0.197	
	MW-93	Apr-19		505	214	**2.09**	3.76	195	**1400**	**2810**	0.0220 J	
	MW-93	Jun-20		491	233	**1.88**	3.11	163	**1070**	**2820**	<2.50	
	MW-94	Oct-15		109	245	1.01	0.224 J	355	75.8	**2530**	<0.197	
	MW-94	Apr-16		124	217	1.02	0.189 J	532	199	**2980**	<0.197	
	MW-94	Oct-16		137	172	1.04	0.467 J	319	175	**2530**	<0.0197	
	MW-94	Apr-17		95.6	196	0.874	0.331 J	427	85.7	**2660**	<0.197	
	MW-95	Apr-17		203 V	**349**	0.868	0.730 J	194 V	420	**1710**	<0.197	
	MW-95	Apr-18		229	**258**	0.884	0.602 J	163	471	**1770**	<0.0197	
	MW-95	Apr-19		246	**264**	0.830	0.472 J	172	561	**2020**	<0.0197	
	MW-95	Jun-20		250	**300**	0.739	<0.534	151	**682**	**2020**	<0.0500	
	MW-96	Apr-18		188	159	1.18	1.23	229	178	**1450**	<1.97	
	MW-96	Oct-18		186	157	1.10	0.985 J	217	235	**1530**	<0.197	
	MW-96	Apr-19		167	150	1.20	1.17	211	150	**1360**	0.141	
	MW-96	Oct-19		195	144	1.17	1.15	204	393	**1520**	<0.197	
	MW-96	Jun-20		147	131	1.32	1.52 J	200	95.2	**1320**	<2.50	
	MW-96	Oct-20		142	128	1.15	1.17 J	218	69.3 P1	**1420**	<0.0500	
	MW-98	Apr-18		543	81.5	**1.70**	0.235 JB	106	**1790**	**2910**	<1.97	
	MW-98	Oct-18		490	98.3	**1.65**	0.249 J	93.9	**1640**	**2320** J3	<0.985	
	MW-98	Apr-19		575	126	**1.69**	<0.0370	127	**1800**	**2980**	<1.97	
	MW-98	Oct-19		575	185	**1.99**	0.257 J	115	**1520**	**3330**	<0.985	
	MW-98	Jun-20		561	239	**1.69**	<0.534	129	**1590**	**3280**	<5.00	
	MW-98	Oct-20		515	195	**1.73**	<0.534	125	**1300**	**3060**	<0.0500	
	MW-137	Oct-17		141	**548**	1.11	0.979 JB	759	**683**	**2910**	<0.394	<0.00180
	MW-137	Apr-18		143	**446**	1.41	1.23	955	**713**	**3420**	<0.985	<0.180
	MW-137	Oct-18		133	**406**	0.873	0.971 J	632	384	**2730**	<1.97	<0.180
	MW-137	Apr-19		142	**407**	1.28	1.14	845	**607**	**3380**	<1.97	<0.0900
	MW-138	Oct-17		124	**453**	1.06	1.50 B	401	27.9	**2100**	<0.0985	<0.00180
	MW-138	Apr-18		130	**453**	0.874	1.58	436	26.8	**1910**	<0.0197	<0.00180
	MW-138	Oct-18		122	**408**	0.802	1.60	362	30.3	**1510**	<0.0197	<0.00180
	MW-138	Apr-19		130	**435**	0.966	1.62	402	41.4	**1730**	<0.0197	<0.00180
	RW-1R	Apr-16		505	180	1.38	6.39	203	**1500**	**2990**	0.422 J	
	RW-1	Apr-17		558	246	1.41	7.37	268	**1860**	**3690**	<0.197	
	RW-1	Apr-18		363	**255**	0.913	2.24	247	**1030**	**1810**	<1.97	
	RW-1	Apr-19		337	**286**	0.866	1.87	266	**939**	**2690**	<1.97	
	RW-2	Apr-15		726	**365**	**1.75**	5.55 J	383	**3510**	**5310**	<0.200	
	RW-2R	Apr-16		875	**430**	**2.09**	5.80	396	**2200**	**3810**	0.281 J	
	RW-2	Apr-17		519	**251**	**2.35**	2.86	261	**1200**	**3030**	<0.197	
	RW-2	Apr-18		402	**317**	**1.75**	2.25	335	**731**	**2600**	<0.394	
	RW-7	Apr-17		266	204	0.513	0.922 J	105	**693**	**1740**	<0.197	
	RW-7	Apr-18		295	217	1.22	2.54	149	475	**1820**	<0.985	
	RW-7	Apr-19		247	239	1.05	1.63	150	426	**1830**	<0.197	
	RW-7	Jun-20		184	218	0.995	0.651 J	151	162	**1530**	<2.50	
	RW-8	Apr-15		227	115	0.801	0.353 J	209	473	**1600**	<0.200	
	RW-8	Apr-17		218	163	0.731	0.360 J	161	**665**	**1820**	<0.197	
	RW-9	Apr-17		355	**369**	**1.90**	2.26	326	**1370**	**3370**	<0.197	
	RW-9	Apr-18		322	**353**	**1.80**	2.13	351	**1170**	**2750**	<0.985	
	RW-9	Apr-19		309	**399**	1.46	1.91	356	**1160**	**3100**	<1.97	
	RW-9	Jun-20		293	**469**	1.21	1.51 J	425	**1140**	**3330**	<2.50	
	RW-10	Apr-17		457	88.0	**3.53**	3.24	110	**1500**	**2660**	<0.197	
	RW-10	Apr-18		499	131	**3.41**	3.49	143	**1530**	**2670**	<0.985	
	RW-10	Apr-19		572	65.9	**3.66**	3.68	102	**1470**	**2540** J3	<0.197	
	RW-10	Jun-20		485	92.9	**3.87**	4.43	151	**1450**	**2520**	<0.0500	
	RW-16B	Apr-17		499	**291**	**4.90**	0.832 J	372	**2740**	**5030**	2.20	
	RW-16B	Apr-18		546	43.5	**4.89**	0.788 J	259	**2660**	**4240**	0.894 J6	
	RW-16B	Apr-19		540	83.0	**4.48**	0.677 J	333	**2690**	**4440**	1.47 J3J6	
	RW-16B	Jun-20		516	181	**3.78**	1.65 J	492	**2970**	**4720**	<0.0500	
	RW-17A	Apr-17		568	**398**	**2.61**	4.02	306	**2950**	**4820**	3.33	
	RW-17A	Apr-18		635	**358**	**2.31**	3.87	345	**3080**	**4430**	0.0920 J	
	RW-17A	Apr-19		563	**398**	**2.64**	2.97	286	**3290**	**5430**	<0.0197	
	RW-17A	Jun-20		554	**389**	**2.58**	4.62	306	**2940**	**5730**	0.386	
North RO Field	MW-117	Apr-18		604	124	**3.20**	6.30	111	**1070**	**2920**	0.207	
	MW-117	Oct-18		577	**327**	**2.78**	6.12	105	**1940**	**3500**	0.102	
	MW-117	Apr-19		686	**307**	**2.99**	7.11	127	**1980**	**3720**	0.0740 J	
	MW-117	Oct-19		582	**267**	**3.25**	6.50	99.5	**2010**	**3330**	0.376	
	MW-117	Jun-20		578	**299**	**3.43**	6.39	129	**2300**	**3640**	2.46	
	MW-117	Oct-20		587	**271**	**3.25**	6.68	133	**2030**	**3870** J3	4.05	
	MW-118	Apr-18		607	**292**	**5.55**	4.86	136	**2480**	**3300**	1.21	
	MW-118	Oct-18		559	**259**	**5.06**	4.98	136	**1730**	**4120**	1.88	
	MW-118	Apr-19		648	**256**	**5.40**	5.40	144	**2390**	**3800**	1.06	
	MW-118	Oct-19		573	**286**	**5.28**	3.78	153	**2580**	**4260**	1.76	
	MW-118	Jun-20		586	**290**	**5.20**	3.45	171	**2950**	**4620**	2.43	
	MW-118	Oct-20		558	**262**	**5.06**	3.07 B	178	**2600**	**4640**	2.03	
	MW-119	Apr-18		616	**251**	**2.75**	1.10	177	**2240**	**2620**	0.288	
	MW-119	Oct-18		596	**439**	**2.56**	1.49	225	**1390**	**4200**	0.0610 J	
	MW-119	Apr-19		654	**404**	**2.59**	1.39	249	**2160**	**3680**	0.398	
	MW-119	Oct-19		633	**397**	**2.34**	1.31	203	**2360**	**4670**	0.132	
	MW-119	Jun-20		629	**345**	**1.66**	0.637 J	202	**2990**	**4500**	0.281	
	MW-119	Oct-20		641	**298**	1.39	0.832 JB	200 V	**2490**	**4420**	0.106	
South Refinery	KWB-2R	Apr-17		280	**279**	0.904	0.460 J	286	**1060**	**2550**	0.0220 J	
	KWB-2R	Oct-17		139	240	1.09	1.33	283	259	**1770**	<0.394	
	KWB-2R	Apr-19		322	246	0.656	0.516 JB	304	**1040**	**2370**	0.991 J	
	KWB-2R	Oct-19		169	**253**	0.927	0.534 J	246	345	**1590** J3	<0.0197	
	KWB-5	Oct-17		220	**565**	0.877	1.41	208	21.9	**1560**	0.0530 J	
	KWB-5	Apr-18		233	**546**	0.861	1.95	215	9.96	**1730**	1.93	
	KWB-5	Oct-18		200	**546**	0.869	1.76 JB	208	11.8	**1450**	<0.0197	
	KWB-5	Apr-19		244	**525**	0.761	2.10	241	18.7	**1680**	<0.0197	
	KWB-6	Apr-17		227	**260**	0.965	0.183 J	120	211	**1630**	0.556 J	
	KWB-6	Oct-17		256	**290**	0.842	0.162 J	131	377	**1890**	<0.394	
	KWB-6	Apr-18		248	248	0.897	0.268 J	138	272	**1600**	0.0380 J	
	KWB-6	Oct-18		223	240	0.801	0.230 J	122	324	**1680** J3	<0.0197	

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HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup										
South Refinery	MW-28	Apr-18		319	149	1.33	1.05	107	**1380**	**2290**	<0.394	<0.0180	
	MW-28	Oct-18		212	151	1.08 J3	1.72 JB	97.0	**960**	**1810**	<0.985	0.00263 JP1	
	MW-28	Apr-19		361	138	1.14	0.964 J	112	**1030**	**2920**	<0.985	<0.0180	
	MW-28	Oct-19		360	143	1.60	0.571 JB	101	**1630**	**2860**	<0.985	<0.0180 J4	
	MW-28	Jun-20		285	149	1.10	4.23	109	**1310**	**2610**	<0.250	<0.0360	
	MW-28	Oct-20		281	132	1.02	4.03	114	**1140**	**2670**	<0.0500	<0.00180	
	MW-48	Apr-18		200	**689**	**1.90**	0.776 J	269	9.52	**2490**	0.0860 J		
	MW-48	Oct-18		172 V	**498**	1.20	0.863 J	293 V	125	**1730 J4**	<0.394		
	MW-48	Apr-19		168	179	**1.82**	1.16	290	**1210**	**1630 J4**	<0.394		
	MW-48	Oct-19		159	**429**	1.08	1.12	297	85.7	**1580 J3**	<0.985		
	MW-50	Apr-18		558	**415**	**2.12**	4.09	531	**3440**	**5320**	9.78		
	MW-50	Oct-18		402	**338**	**1.85**	2.56	291	**2150**	**3790**	0.507		
	MW-50	Apr-19		469	**320**	1.50	2.62	334	**2340**	**4440**	1.48		
	MW-50	Oct-19		406	**298**	**1.80**	2.63	289	**2450**	**3260**	1.53		
	MW-50	Jun-20		495	**418**	**2.92**	4.42	577	**3370**	**5550 Q**	**74.6**		
	MW-50	Oct-20		490	**390**	**3.64**	4.05	682	**4100**	**7810**	**78.5 V**		
	MW-52	Apr-18		195	119	**1.81**	0.193 J	301	**1090**	**2100**	0.893	<0.00180	
	MW-52	Oct-18		175	115	**1.81**	0.209 J	272	**983**	**2420 J4**	4.22	<0.00180	
	MW-52	Apr-19		201	160	**1.87**	0.394 JB	321	**1080**	**2500 J3J4**	**12.7**	<0.00180	
	MW-52	Oct-19		206	**1140**	**1.71**	0.218 JB	322	**1110**	**2380 J3**	**13.3**	<0.00180	
	MW-52	Jun-20		239	195	**1.71**	<0.534	340	**1140**	**2810**	**13.0**	<0.00180	
	MW-52	Oct-20		223	195	**1.62**	<0.534	332	**1110**	**2720**	**15.3 V**	<0.00180	
	MW-64	Apr-18		93.7	**323**	0.795	0.697 J	362	1.84 J	**1500**	<0.985		
	MW-64	Oct-18		77.9	**309**	0.958	1.36 JB	312	3.78 J	**1390**	<0.985		
	MW-64	Apr-19		105	**295**	0.833	0.713 J	359	1.94 J	**1340**	<0.0197		
	MW-64	Oct-19		83.5	**325**	0.742	0.587 J	327	4.42 JB	**1480**	<0.197		
	MW-64	Jun-20		90.7	**324**	0.993	0.655 J	350	5.03	**1620**	<0.100		
	MW-64	Oct-20		88.5	**310**	0.710	0.586 JB	343	8.17	**1590**	<0.0500 J3J6		
	MW-65	Apr-18		132	**306**	1.33	0.732 J	264	10.2	**1340**	<0.0985		
	MW-65	Oct-18		127	**284**	1.12	0.823 JB	229	4.80 J	**1280**	<0.0197 J6		
	MW-65	Apr-19		155	**284**	0.967	0.532 JB	262	1.23 J	**1310**	<0.0197		
	MW-65	Oct-19		113	234	1.23	0.466 J	223	5.53 B	**1080**	<0.0197		
	MW-66	Apr-18		147	196	1.38	0.867 J	191	<0.0774	**1110**	<0.0197	<0.00180	
	MW-66	Oct-18		138	204	1.26	0.868 J	174	0.781 J	**1180**	<0.0197 J6	<0.00180	
	MW-66	Apr-19		145	187	1.23	1.21	189	0.718 J	**1140**	<0.0197	<0.00180	
	MW-66	Oct-19		121	168	1.04	1.18	131	6.99	912	<0.0197 J6	<0.00180	
	MW-66	Jun-20		136	188	1.13	0.842 J	155	1.16 J	**1070**	0.0979 J	<0.00180	
	MW-66	Oct-20		140	189	1.12	1.71 JB	145	6.68	**1060**	<0.0500	<0.00180	
	MW-99	Apr-18		179	**256**	0.686	0.745 J	237	128	**1410**	0.0540 J		
	MW-99	Oct-18		162	**254**	0.612	0.792 J	212	124	**1420**	<0.394		
	MW-99	Apr-19		184	225	0.572	1.31	214	145	**1390**	<0.394		
	MW-99	Oct-19		109	66.7	0.517	4.66	58.1	81.1	547	0.0300 J		
	MW-99	Jun-20		138	73.2	0.323	7.77	60.7	109	727	<0.0500		
	MW-101	Apr-18		197	228	0.909	0.538 J	154	173	**1380**	<0.0197		
	MW-101	Oct-18		183	215	0.759	0.482 J	133	163	**1280 J3**	<0.0197		
	MW-101	Apr-19		208	223	0.984	0.384 J	158	182	**1370**	<0.0197 J5		
	MW-101	Oct-19		192	212	0.994	0.482 JB	138	202	**1370**	<0.0197		
	MW-101	Jun-20		183	202	0.965	0.556 J	144	183	**1330**	<0.0500		
	MW-101	Oct-20		207	185	0.915	0.881 JB	137	234	**1410**	<0.0500		
	MW-102	Apr-18		136	26.4	0.954	0.960 J	406	5.49	**1380**	<0.985 J5		
	MW-102	Oct-18		88.3	**254**	0.883	0.605 JB	377	6.33	**1490**	<0.985		
	MW-102	Apr-19		101 V	**281**	0.797	0.275 J	401 V	23.3	**1510**	<0.197		
	MW-102	Oct-19		166	**294**	1.09	0.631 JB	392	190	**1870**	<0.197		
	MW-102	Jun-20		84.2	**285**	0.984	<0.534	446	21.2	**1610**	<0.0500		
	MW-102	Oct-20		91.9	**282**	0.812	<0.534	431	5.16	**1610**	<0.0500		
	MW-103	Apr-17		306	**12000**	1.39	3.12 J	10000	48.0	**22300**	0.0530 J		
	MW-103	Apr-18		94.1	**6800**	**7.41**	1.41	5980	60.4	**13400**	<0.394		
	MW-103	Apr-19		91.2	**4550**	**5.85**	1.16	3990	133	**9260**	<0.0197		
	MW-103	Jun-20		120	**4480**	**4.50**	1.21 J	2830	44.3	**7620**	<0.500		
	MW-104	Apr-18		207	102	**1.67**	5.95	74.9	417	**1110**	<0.394		
	MW-104	Apr-18	FD	229	106	**1.75**	7.12	76.8	437	**1110**	<0.0985		
	MW-104	Oct-18		275	123	**1.64**	8.34	86.6	**736**	**1610**	<0.985		
	MW-104	Oct-18	FD	313	126	1.57	8.09	92.8	**746**	**1640**	<0.197		
	MW-104	Apr-19		321	67.0	1.18	8.16	113	**780**	**1650**	<0.0197		
	MW-104	Apr-19	FD	296	67.7	1.21	7.37	78.0	**793**	**1590**	<0.197		
	MW-104	Oct-19		241	68.0	1.55	5.92	72.2	**757**	**1390**	<0.0197		
	MW-104	Oct-19	FD	244	67.9	1.56	6.00	72.5	**863**	**1300**	<0.197		
	MW-104	Jun-20		224	69.8	1.51	5.03	77.2	**703**	**1290**	<0.250		
	MW-104	Jun-20	FD	218	69.2	1.33	4.88	73.6	**703**	**1140**	<0.500		
	MW-104	Oct-20		256	71.7	1.34	5.63	73.9	**785**	**1470**	0.153		
	MW-104	Oct-20	FD	241	71.7	1.36	5.28	73.7	**702**	**1450**	<0.0500		
	MW-105	Apr-18		279	129	**1.96**	6.16	120	226	**1400**	<0.394		
	MW-105	Oct-18		291	99.9	1.12	6.13	74.8	414	**1470**	<0.394		
	MW-105	Apr-19		294	21.4	1.18	2.78	31.0	600	**1360**	<0.197		
	MW-105	Oct-19		453	28.0	1.04	4.72	26.0	**1120**	**2040**	<0.985		
	MW-105	Jun-20		243	98.8	1.43	2.74	71.7	177	**1220**	<2.50		
	MW-105	Oct-20		170	99.9	1.47	2.73	89.5	17.4	**1050**	<0.0500		
	MW-106	Apr-18		341	211	1.29	2.38	280	**1220**	**2180**	<1.97		
	MW-106	Oct-18		298	208	1.02	0.979 J	265	**979**	**2650**	<0.985		
	MW-106	Apr-19		225	150 B	0.952	2.09	153	**870**	**1900**	<0.985		
	MW-106	Oct-19		360	217	1.29	1.74	264	**1340**	**3240**	<0.985		
	MW-106	Jun-20		295	206	1.11	1.53 J	258	**1130**	**2890**	<10.0		
	MW-106	Oct-20		285	213	0.865	0.777 J	318	**980**	**3110**	<0.0500		
	MW-107	Oct-16		186	**271**	**1.82**	0.965 J	80.1	72.4	**1480**	0.170 B		
	MW-107	Apr-17		140	**313**	**1.76**	0.655 J	75.4	<0.0774	**1260**	<0.197		
	MW-107	Apr-18		147	**269**	**1.66**	0.555 J	81.7	1.08 J	**1370**	0.0410 J		
	MW-107	Apr-19		147	246	1.33	0.631 J	82.5	0.657 J	**1270**	<0.0197		
	MW-109	Apr-18		173	170	**2.25**	0.992 J	395	**864**	**2220**	0.0460 J		
	MW-109	Oct-18		147	177	**2.23**	0.906 J	373	**764**	**2160 Q**	0.108 J6		
	MW-109	Apr-19		103	180	**2.01**	0.935 J	470	589	**2010**	<0.0197		
	MW-109	Oct-19		98.3	190	**2.08**	0.720 JB	389	**710**	**1740**	0.0580 J		
	MW-109	Jun-20		87.7	191	**1.97**	0.786 J	423	496	**2150**	<2.50		
	MW-109	Oct-20		70.2	200	**1.86**	0.700 JB	430	376	**1990**	<0.0500		
	MW-110	Apr-18		99.2	102	1.46	0.381 J	286	138	**1170**	0.0410 J		
	MW-110	Oct-18		112	113	1.38	0.367 J	268	499	**1390**	<0.0197		
	MW-110	Apr-19		105	122	1.48	0.203 JB	278	403	**1340**	<0.0197		
	MW-110	Oct-19		103	105	1.41	0.0768 JB	256	529	**1240**	<0.0197		
	MW-110	Jun-20		97.8	95.6	1.39	<0.534	251	316	**1300**	<0.0500		
	MW-110	Oct-20		95.9	92.9	1.32	<0.534	252	401	**1290**	<0.0500		
	MW-139	Oct-19		395	249	0.748	1.16	247	**1790**	**3480**	<0.0197		
	MW-139	Jun-20		362	236	0.646	0.597 J	252	**2010**	**3620**	<0.0500		
	MW-139	Oct-20		373	186	0.533	0.560 J	286	**1510**	**3690**	<0.0500		
	RA-313	Apr-17		167	15.0	0.893	1.26	16.4	455	937	0.447 J		
	RA-313	Apr-18		181	15.3	0.888	0.954 J	18.0	467	819	0.507		
	RA-313	Apr-19		238	221	0.772	1.69	139	**605**	**1510**	0.533		
	RA-313	Jun-20		221	190	0.898	1.66 J	99.9	**635**	**1400**	0.570		

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
South Refinery	RW-4	Apr-17		151	**280**	0.977	1.50	177	318	**1510**	<0.197	
	RW-4	Apr-18		181	242	0.909	1.52	172	410	**1550**	<0.0197	
	RW-4	Apr-19		188	228	0.691	1.24	151	325	**1660**	<0.197	
	RW-4	Jun-20		201	232	0.778	1.13 J	130	446	**1710**	<0.500	
	RW-5R	Apr-15		4.82	**260**	0.965	0.461 J	189	0.376 J	565	<0.0200	
	RW-5R	Apr-16		4.61 J	**262**	0.564	0.364 J	203	0.655 J	399	0.495 J	
	RW-6	Apr-15		168	**414**	0.628	0.686 J	205	129	**1650**	0.0335 J	
	RW-6R	Apr-16		191	**405**	0.747	0.356 J	226	104	**1470**	0.485 JP1	
	RW-6	Apr-18		183	**409**	0.804	0.684 J	224	45.6	**1530**	0.0460 J	
	RW-6	Apr-19		165	**325**	0.620	0.598 J	191	3.36 J	**1350**	<0.394	
	RW-15C	Apr-17		160	**409**	0.774	1.59	269	19.4	**1610**	0.442 J	
	RW-15C	Apr-18		211 V	**652**	0.868	1.28	349 V	0.754 J	**1850**	<0.0197	
	RW-15C	Apr-19		247	**264**	0.882	1.63	322	**1070**	**2110 J4**	<0.0197	
South RO Field	MW-114	Apr-18		665	181	**1.97**	2.74	138	**2260**	**3000**	1.50	
	MW-114	Oct-18		581	207	**1.77**	2.46	117	**1050**	**3730**	0.395	
	MW-114	Apr-19		616	228	**2.02**	2.73	118	**2400**	**3540**	0.356	
	MW-114	Oct-19		593	226	**2.14**	2.61	126	**2010**	**3530**	0.571	
	MW-114	Jun-20		586	**251**	**2.17**	2.42	127	**2060**	**3470**	0.478 J5	
	MW-114	Oct-20		528	233	**2.07**	2.37 B	119	**1590**	**3300**	0.110	
	MW-115	Apr-18		455	**262**	**1.76**	0.580 J	232	**2830**	**3420**	0.0750 J	
	MW-115	Oct-18		397	231	1.47	0.549 J	191	**1720**	**4410**	0.325	
	MW-115	Apr-19		512 V	**281**	**2.12**	0.487 J	180 V	**2720**	**4240**	0.148	
	MW-115	Oct-19		431	**258**	**2.35**	0.496 J	184	**2280**	**4040**	0.163	
	MW-115	Jun-20		475	**424**	**2.09**	<0.534	187	**2590**	**4320**	3.94	
	MW-115	Oct-20		467	**406**	**1.73**	<0.534	179	**2350**	**4590**	3.99	
	MW-116	Apr-18		592	198	**2.55**	3.16	154	**2040**	**2950**	0.851	
	MW-116	Oct-18		557	226	1.15	1.18	170	**2150**	**4090**	0.727	
	MW-116	Apr-19		623	**263**	1.56	1.25	215	**2470**	**3890**	0.442	
	MW-116	Oct-19		546	**292**	**1.93**	1.52	175	**2600**	**3260**	0.417	
	MW-116	Jun-20		559	**282**	1.59	1.11 J	177	**2270**	**4210**	0.520	
	MW-116	Oct-20		550	**260**	1.53	1.14 JB	176	**1920**	**4040**	0.476	
TEL	MW-49	Apr-18		226	**379**	1.42	3.12	341	585	**1870**	<0.985	<0.0180
	MW-49	Oct-18		209	**355**	1.29	2.58	335	520	**2150**	<0.985	<0.180
	MW-49	Apr-19		225	**435**	1.51	2.96	340	592	**2160**	<0.985	<0.0180
	MW-49	Oct-19		199	**418**	1.58	2.93	318	470	**2320**	<0.985	<0.0180
	MW-49	Jun-20		210	**442**	1.38	2.90	309	487	**2350**	<2.50	<0.0900
	MW-49	Oct-20		196	**451**	1.30	2.45	308	437	**2340**	<0.0500	0.0121 J
	TEL-1	Apr-18		188	**272**	**2.23**	1.06 B	465	**815**	**2230**	<0.0197 J6	
	TEL-1	Oct-18		160	238	**2.13**	0.650 J	474	**719**	**2080**	<0.394	
	TEL-1	Apr-19		172	250	**2.14**	0.685 J	460	**803**	**2000**	<0.394	
	TEL-1	Oct-19		144	234	**2.23**	0.629 J	474	**640**	**2200**	<0.0197	
	TEL-1	Jun-20		143	184	**1.98**	0.565 J	435	**699**	**2140**	<0.500	
	TEL-2	Apr-18		260	222	1.08	1.78 B	451	**1200**	**2770**	<0.0985	
	TEL-2	Oct-18		266	205	0.967	1.14	363	**1360**	**2730**	<0.394	
	TEL-2	Apr-19		274	224	1.09	1.73	377	**1250**	**2940**	<0.394	
	TEL-2	Oct-19		298	159	1.28 B	1.30	407	**1610**	**3550**	<0.394	
	TEL-2	Jun-20		280	130	0.988	1.05 J	373	**1540**	**3400**	<0.500	
	TEL-3	Apr-18		302	**696**	**2.51**	6.00	308	442	**2440**	<0.0985	
	TEL-3	Apr-19		562	52.7	**2.77**	5.37	44.1	**1300**	**2290**	<0.0985	
	TEL-3	Oct-19		603	36.7	**3.06**	5.26	36.2	**1470**	**2790**	<0.985	
	TEL-3	Oct-20		424	114	**1.73**	2.55	86.5	**1290**	**2880**	<0.0500 J6	
	TEL-4	Apr-18		448	**360**	1.12	1.19 B	477	**2400**	**4330**	0.0230 J	
	TEL-4	Apr-18	FD	439	**362**	1.09	1.19 B	470	**2460**	**4490**	0.0280 J	
	TEL-4	Oct-18		242	28.5	1.48	0.449 J	286	**2050**	**2840**	<0.0197	
	TEL-4	Oct-18	FD	246	27.9	1.43	0.446 J	289	**2050**	**2910**	0.0700 J	
	TEL-4	Apr-19		262	36.8	1.45	0.438 J	204	**1830**	**3140**	<0.0197	
	TEL-4	Apr-19	FD	264	36.3	1.44	0.432 J	213	**1860**	**2830**	<0.0197	
	TEL-4	Oct-19		283	**281**	**2.09**	0.556 J	303	**1680**	**3540**	<0.394	
	TEL-4	Oct-19	FD	285	**274**	**2.05**	0.529 J	286	**1640**	**3570**	<0.394	
	TEL-4	Jun-20		305	**456**	0.932	<0.534	284 O1V	**1480**	**3770**	<0.500	
	TEL-4	Jun-20	FD	308	**455**	0.841	<0.534	286	**1490**	**3770**	<0.0500	
	TEL-4	Oct-20		294	**400**	0.904	<0.534	296 V	**1140**	**3470**	<0.0500	
	TEL-4	Oct-20	FD	291	**450**	0.834	<0.534	307	**1230**	**3510**	<0.0500	
Three Mile Ditch	MW-8	Apr-17		346	**334**	**2.20**	1.44	262	**2100**	**3900**	1.04	
	MW-8	Apr-18		450	**443**	**1.99**	1.76	320	**2470**	**4040**	8.72	
	MW-8	Apr-19		499	**450**	**2.08**	1.85	336	**3050**	**4640 J4**	**18.7**	
	MW-8	Jun-20		534	**599**	**2.04**	1.98 J	393	**3060**	**5260**	**16.0**	
	MW-16	Apr-17		558	**936**	**2.36 J6**	9.27	689	**2900**	**4150**	1.75	
	MW-16	Apr-18		600	**705**	**2.26**	9.59	643	**2820**	**4960**	0.428	
	MW-16	Apr-19		555	**349**	**2.57**	9.13	472	**2590**	**4590 J4**	0.790	
	MW-16	Jun-20		500	**446**	**2.69**	8.82	424	**2610**	**4390**	0.331	
	MW-20	Apr-17		525	**588**	**2.27**	0.425 J	274	**2800**	**5650**	8.74	
	MW-20	Apr-18		537	**525**	**2.13**	0.562 J	291	**2790**	**4700 J3**	4.56	
	MW-20	Apr-19		541	**373**	**2.27**	0.509 J	284	**2980**	**4710 Q**	2.02	
	MW-20	Jun-20		522	**382**	**2.26**	0.601 J	284	**2830**	**4590**	2.38	
	MW-21	Apr-18		550	**636**	**1.85**	2.03	425	**2900**	**4820**	**18.5**	
	MW-21	Oct-18		599 O1V	**620**	**1.92**	2.08 O1	448 O1V	**3290**	**4010**	**22.1**	
	MW-21	Apr-19		622	**628**	**2.02**	2.11	443	**3150**	**4990 J4**	**19.9**	
	MW-21	Oct-19		536	**592**	**1.68**	1.98	425	**2930**	**5410**	**15.1**	
	MW-21	Jun-20		586	**641**	**2.02**	2.17	440	**3130**	**5480**	**18.6**	
	MW-21	Oct-20		552	**616**	1.41	2.15	429	**2700**	**5600**	**17.5**	
	MW-25	Apr-17		484 V	**2330**	1.17	5.11	1540	**2800**	**6240**	0.152	
	MW-25	Apr-18		368 V	**1230**	1.25	4.32	875 V	**1770**	**4080**	0.156	
	MW-25	Apr-19		330	**1040**	1.00	4.19	771	**1510**	**3810**	2.98	
	MW-25	Jun-20		323	**976**	1.31	3.90	653	**1450**	**3610**	0.143	
	MW-26	Apr-17		707	**1580**	**1.75**	5.90	760	**5120**	**8730**	0.580	
	MW-26	Apr-18		664	**1120**	**1.61**	5.46	731	**3830**	**7170**	0.986	
	MW-26	Apr-19		584	**1010**	**2.09**	5.77	674	**4420**	**7020 Q**	1.66	
	MW-26	Jun-20		585	**671**	**2.06**	5.18	530	**3660**	**5990**	1.69	
	MW-27	Apr-17		410	138	1.29	8.43	136	**1550**	**2150**	1.22	
	MW-27	Apr-18		337	80.2	1.33	7.88	129	**1140**	**1870**	0.770	
	MW-27	Apr-19		297	55.2	1.42	7.82	104	**1030**	**1720 J4**	0.987	
	MW-27	Jun-20		301	56.7	1.38	7.62	91.0	**1070**	**1820**	1.78	
	MW-46R	Apr-18		613	**282**	**1.78**	1.43	192	**2310**	**3620**	<0.0197	
	MW-46R	Oct-18		582 V	207	1.42	1.22	174 V	**2330**	**3650**	0.0670 J	
	MW-46R	Apr-19		638	**319**	1.51	0.913 J	178	**2290**	**4030 J4**	0.293	
	MW-46R	Oct-19		602	**318**	1.29	0.949 J	178	**2390**	**4120**	0.527	
	MW-46R	Jun-20		607	204	1.43	0.731 J	172	**2550**	**3930**	0.0922 J	
	MW-46R	Oct-20		553	175 B	1.16	0.725 JB	166	**2070**	**3860**	<0.0500	
	MW-68	Apr-17		381	237	**1.88**	4.60	165	**1620**	**2890**	0.381	
	MW-68	Apr-18		388	176	**1.82**	5.01	162	**1470**	**2150**	0.390	
	MW-68	Apr-19		326	145	**2.12**	4.87	153	**1310**	**2260 J4**	1.08	
	MW-68	Jun-20		420	**354**	**1.89**	5.27	190	**1700**	**3040**	2.05	

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Table 4C - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Three Mile Ditch	MW-71	Apr-17		601	**848**	**1.63**	3.62	491	**2940**	**5300**	**54.0**	<0.00180	
	MW-71	Apr-18		638	**809**	1.51	3.77	516	**2970**	**5280**	**39.5**	<0.00180	
	MW-71	Apr-19		673	**799**	**1.71**	3.47	502	**3260**	**5940** J4	**32.1**	<0.00180	
	MW-71	Jun-20		630	**770**	**1.89**	3.51	510	**3130**	**6020**	**27.8**	<0.00180	
	MW-89	Apr-17		550	**394**	**3.97**	12.2	289	**2170**	**3600**	4.77		
	MW-89	Apr-18		513	170	**2.64**	8.61	151	**1630**	**2430**	1.10		
	MW-89	Apr-19		607 V	233	**3.32**	11.7	193 V	**1040**	**3470** J4	1.34		
	MW-89	Jun-20		480	162	**2.92**	8.84	148	**1810**	**2810**	0.151		
	NP-1	Apr-18		421	**395**	**2.00**	4.52	342	**2210**	**3660**	5.66		
	NP-1	Oct-18											
	NP-1	Apr-19		445	**382**	**2.04**	3.94	325	**2280**	**4210** Q	3.98		
	NP-1	Oct-19											
	NP-1	Jun-20		436	**409**	**1.89**	2.59	311	**2260**	**4060**	3.27		
	NP-1	Oct-20											
	NP-6	Apr-13											
	NP-6	Apr-15											
	NP-6	Apr-17											
	NP-6	Apr-19											
Upgradient	UG-1	Apr-17		471	178	0.928	1.14	99.1	**1830**	**3390**	**15.0**	<0.00180	
	UG-1	Apr-18		434	107	0.751	2.12	98.3	**1670**	**2600**	6.73	0.00224 JB	
	UG-1	Apr-19		525	98.3	0.623	1.29	105	**1800**	**3150**	**10.1**	<0.00180	
	UG-1	Jun-20		503	97.3	0.784	1.16 J	84.0	**2060**	**3550** B	**10.6**	<0.00180	
	UG-2	Apr-17		342	78.9	**1.67**	1.60	94.0	**1060**	**2270**	**16.3**	<0.00180	
	UG-2	Apr-18		321	72.5	**1.62**	1.33	85.4	**1050**	**1810**	**14.1**	<0.00180	
	UG-2	Apr-19		357	61.3	1.32	1.58	90.6	**1020**	**2040** Q	7.70 J6	<0.00180	
	UG-2	Jun-20		342	75.9	1.52	1.41 J	85.7	**1190**	**2150** B	9.75	<0.00180	
	UG-3R	Apr-17		393	61.1	0.707	1.74	70.7	**1310**	**2140**	2.60	<0.00180 J5	
	UG-3R	Apr-18		418	40.8	0.599	1.67	73.6	**1470**	**2190**	1.68	<0.00180	
	UG-3R	Apr-19		479	36.3	0.502	1.99	37.1	**1390**	**2440**	0.905	<0.00180	
	UG-3R	Jun-20		440	39.6	0.582	1.93 J	30.1	**1560**	**2430**	1.93	<0.00180	
	UG-4	Apr-17		594 V	154	0.666	1.87	202 V	**2750**	**4350**	0.547 J	<0.00180	
	UG-4	Apr-18		620	125	0.574	1.77	201	**2680**	**4030**	0.515	<0.00180	
	UG-4	Apr-19		694	133	0.544	1.96	190	**2420**	**4210**	0.418	<0.00180	
	UG-4	Jun-20		622	108	0.605	1.78 J	168	**2810**	**4210** B	0.326	<0.00180	

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
WQCC Dom	NMED Groundwater standard for domestic exposure, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference
P1	Relative percent difference value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past recommended holding time.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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Table 4D - Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Semi-Volatile Organic Compounds																			
				Analyte	Acenaphthene	Anthracene	Atrazine	Benzo(a) pyrene	Benzo(g,h,i) perylene	1,1'-Biphenyl	Bis (2-ethylhexyl) phthalate	Butylbenzyl phthalate	Carbazole	Dibenzofuran	Diethyl phthalate	2,4-Dimethyl phenol	Di-n-butyl phthalate	Fluoranthene	Fluorene	1-Methyl naphthalene	2-Methyl naphthalene	2-Methyl phenol	Naphthalene	Phenanthrene	Phenol	Pyrene
				CAS	83-32-9	120-12-7	1912-24-9	50-32-8	191-24-2	92-52-4	117-81-7	85-68-7	86-74-8	132-64-9	84-66-2	105-67-9	84-74-2	206-44-0	86-73-7	90-12-0	91-57-6	95-48-7	91-20-3	85-01-8	108-95-2	129-00-0
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.535	1.72	0.003	0.000200	---	0.0371	0.00600	0.0160	---	0.00790	14.8	0.354	0.885	0.802	0.288	0.0300	0.0300	---	0.0300	0.117	0.00500	0.117
				CGWSL Source	NMED TW	NMED TW	WQCC HH	WQCC HH	---	NMED TW	USEPA MCL	USEPA TW	---	USEPA TW	NMED TW	NMED TW	NMED TW	NMED TW	NMED TW	WQCC HH	WQCC HH	---	WQCC HH	NMED TW	NMED TW	NMED TW
Area	**Well ID**	**Date**	**Dup**																						
North Refinery	MW-23	Apr-19			<0.00158	<0.00146	0.00173 J	<0.000191	<0.0000113	<0.00163	0.00460 J	<0.00138	0.0132 J	0.00394 J	<0.00141	<0.00312	<0.00133	<0.00155	0.00472 J	**0.0531**	<0.00156	<0.00156	**0.0450**	0.00788	**0.0133 J**	<0.00165
	MW-23	Oct-19			<0.00632	<0.00582	**<0.00520**	**<0.000762**	<0.0000454	<0.00650	**<0.0142**	<0.00550	0.0251 J	**0.00924 J**	<0.00564	<0.0125	<0.00532	<0.00620	0.0112 J	**0.0922**	<0.00622	<0.00624	0.0262	0.0146 J	**0.0166 J**	<0.00660
	MW-43	Apr-19			0.000872 J	<0.000294	0.000347 J	<0.0000385	<0.00000229	0.00228 J	0.000920 J	0.00115 J	0.00772 J	0.00192 J	<0.000285	0.00418 J	<0.000269	<0.000313	0.00264	**0.0323**	0.0232	<0.000315	**0.0749**	0.00224	**0.00703 J**	<0.000333
	MW-43	Oct-19			<0.00632	<0.00582	**<0.00520**	**<0.000762**	<0.0000454	<0.00650	**<0.0142**	<0.00550	0.0145 J	<0.00676	<0.00564	<0.0125	<0.00532	<0.00620	0.00946 J	**0.0956**	**0.0603**	<0.00624	**0.249**	0.00892 J	**<0.00668**	<0.00660
	MW-61	Apr-19			0.000667 J	<0.000291	<0.000260	<0.0000381	<0.00000227	0.00315 J	**0.00818**	<0.000275	0.00142 J	0.00293 J	<0.000282	<0.000624	<0.000266	<0.000310	0.00193	**0.0722**	0.0119	<0.000312	**0.0701**	0.00126	0.00457 J	<0.000330
	MW-61	Oct-19			0.000689 J	<0.000291	<0.000260	<0.0000381	0.00000240 J	<0.000325	0.00187 J	<0.000275	0.00127 J	0.00398 J	<0.000282	<0.000624	<0.000266	<0.000310	0.00285	**0.0902**	0.0163	<0.000312	**0.0831**	0.00146	0.00164 J	<0.000330
	MW-62	Apr-19			0.00134	<0.000291	<0.000260	<0.0000381	<0.00000227	0.00389 J	0.00168 J	<0.000275	0.00472 J	0.00458 J	<0.000282	<0.000624	<0.000266	<0.000310	0.00221	**0.0628**	**0.0320**	<0.000312	**0.0861**	0.00191	<0.000334	<0.000330
	MW-62	Oct-19			<0.00632	<0.00582	**<0.00520**	**<0.000762**	<0.0000454	0.00865 J	**<0.0142**	<0.00550	0.0103 J	**0.0128 J**	<0.00564	<0.0125	<0.00532	<0.00620	0.00862 J	**0.144**	**0.0581**	<0.00624	**0.168**	<0.00732	**<0.00668**	<0.00660
	MW-93	Apr-19			0.00176	0.00179	<0.000260	<0.0000381	<0.00000227	0.00229 J	0.00129 J	<0.000275	0.0257	0.00397 J	<0.000282	0.0173	<0.000266	0.000373 J	0.00784	**0.0313**	0.00507	0.0979	**0.0307**	0.0119	0.00492 J	0.000570 J
	MW-93	Jun-20			0.00190 J	0.00137 J	<0.00128	<0.000191	<0.000605	<0.00395	<0.00448	<0.00383	0.0264 J	0.00396 J	<0.00143	0.0157 J	<0.00227	<0.000510	0.00813	**0.0340**	<0.000585	<0.000465	0.0298	0.0132	**<0.0217**	0.000746 J
	MW-95	Apr-19			0.000508 J	<0.000291	0.00126 J	<0.0000381	<0.00000227	<0.000325	0.000850 J	<0.000275	<0.000260	0.00173 J	<0.000282	<0.000624	<0.000266	<0.000310	<0.000323	<0.000332	<0.000311	<0.000312	<0.000372	<0.000366	0.00279 J	<0.000330
	MW-95	Jun-20			0.000679 J	<0.000191	<0.000607	<0.0000907	<0.000288	<0.00188	<0.00213	<0.00182	<0.000264	0.00259 J	<0.000683	<0.000151	<0.00108	<0.000243	<0.000201	<0.000188	<0.000278	<0.000221	0.00115 JB	<0.000267	**<0.0103**	<0.000255
	MW-137	Apr-19			<0.00632	<0.00582	**<0.00520**	**<0.000762**	<0.0000454	<0.00650	**<0.0142**	<0.00550	<0.00520	<0.00676	0.00635 J	<0.0125	<0.00532	<0.00620	<0.00646	**0.0480**	**0.0474**	<0.00624	**0.116**	<0.00732	**<0.00668**	<0.00660
	MW-138	Apr-19			0.000968 J	<0.000291	0.000420 J	<0.0000381	<0.00000227	<0.000325	<0.000709	<0.000275	0.000643 J	0.000611 J	<0.000282	<0.000624	<0.000266	<0.000310	0.00138	0.00549	0.00356	<0.000312	0.0117	0.000583 J	0.00288 J	<0.000330
TEL	TEL-4	Apr-19			0.000493 J	<0.000291	<0.000260	0.000119 JB	<0.00000227	<0.000325	**0.0641**	<0.000275	<0.000260	0.00177 J	<0.000282	<0.000624	0.000273 J	<0.000310	0.00118	0.00498	<0.000311	<0.000312	<0.000372	<0.000366	0.00150 J	<0.000330
	TEL-4	Apr-19	FD		0.000532 J	<0.000291	<0.000260	<0.0000381	<0.00000227	<0.000325	0.000835 J	<0.000275	<0.000260	0.00205 J	<0.000282	<0.000624	0.000267 J	<0.000310	0.00106	0.00531	<0.000311	<0.000312	<0.000372	<0.000366	0.00177 J	<0.000330
	TEL-4	Oct-19			0.000378 J	<0.000291	0.000434 J	<0.0000381	<0.00000227	<0.000325	0.00120 J	<0.000275	0.000400 J	0.00161 J	<0.000282	<0.000624	0.000312 J	<0.000310	0.000570 J	0.00275	<0.000311	<0.000312	0.000383 J	<0.000366	0.000961 J	<0.000330
	TEL-4	Oct-19	FD		0.000465 J	<0.000291	0.000340 J	<0.0000381	<0.00000227	<0.000325	0.00146 J	<0.000275	0.000289 J	0.00169 J	<0.000282	<0.000624	0.000278 J	<0.000310	0.000676 J	0.00300	<0.000311	<0.000312	0.000395 J	<0.000366	0.00146 J	<0.000330

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1 Tap Water Screening Level
USEPA MCL	United States Environmental Protection Agency Maximum Contaminant Level from "Regional Screening Level (RSL) Summary Table", November 2020
USEPA TW	United States Environmental Protection Agency Tap Water Screening Level, "Regional Screening Levels (RSL) Summary Table", November 2020
WQCC Dom	NMED Groundwater standard for domestic water supply, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.

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Table 5 - Summary of Production from Recovery Trenches and Wells

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Recovery Well	Recovery Method	Volume of Water Recovered [1] (gallons)					Volume of PSH Recovered [1] (gallons)				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total 2020	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total 2020
RW-1R	Automated Pump	3,739	39,369	18,302	0	61,410	0	0	33	13,475	13,508
RW-2R	Automated Pump	0	106,804	75,191	2	181,997	0	0	7	0	7
RW-4R	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-5R	Automated Pump	112,972	104,092	12,467	32,201	261,732	997	3,653	7,536	95	12,281
RW-6R	Automated Pump	726,371	658,319	234,015	303,041	1,921,746	456	1	3,213	8,882	12,552
RW-7R	Automated Pump	0	4	101,842	573,056	674,902	0	0	84	17,606	17,690
RW-8R	Automated Pump	0	3,531	30,870	203,313	237,714	0	0	1,979	11,921	13,900
RW-12R	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-13R	Automated Pump	0	96,257	73,699	203,553	373,509	0	1,759	417	2,846	5,022
RW-14R	Automated Pump	85,978	326,424	79,757	109,335	601,494	25,583	30,953	1,689	57,614	115,839
RW-15	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-19	Automated Pump	28,386	1	2	1	28,390	0	0	0	0	0
RW-20	Automated Pump	7,645	1,690	19,333	3,979	32,647	0	0	0	0	0
RW-22	Automated Pump	2	3	7	3	15	9,425	6,732	4,058	13,084	33,299
TOTAL VOLUME RECOVERED:		965,093	1,336,494	645,485	1,428,484	**4,375,556**	36,461	43,098	19,016	125,523	**224,098**

[1] Volumes of recovered water and PSH are based on automated system readings, rounded to the nearest gallon

Table 6 - Summary of Manual Recovery Results

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Area	Well	Date	Prior to Recovery			Recovered Volume		After Recovery		
			Depth to PSH (ft. btoc)	Depth to Water (ft. btoc)	PSH Thickness (ft.)	PSH (gal)	Water (gal)	Depth to PSH (ft. btoc)	Depth to Water (ft. btoc)	PSH Thickness (ft.)
Field East of Refinery	KWB-8	04/08/20	24.90	28.73	3.83	11.10	7.93	25.40	33.40	8.00
	KWB-8	04/08/20	25.40	33.40	8.00	10.00	--	26.15	33.90	7.75
	KWB-10R	03/11/20	18.35	20.94	2.59	2.11	0.79	19.07	19.20	0.13
	KWB-10R	04/08/20	18.43	21.15	2.72	1.59	1.32	19.42	19.44	0.02
	KWB-10R	04/28/20	18.75	21.45	2.70	2.11	3.96	20.10	20.15	0.05
	KWB-10R	07/01/20	18.70	21.50	2.80	2.77	2.91	19.45	19.47	0.02
	KWB-10R	07/21/20	18.82	21.52	2.70	2.25	5.02	20.30	20.35	0.05
	KWB-10R	09/29/20	18.89	21.85	2.96	2.11	1.85	20.10	20.15	0.05
	KWB-10R	08/12/20	18.65	21.70	3.05	2.38	3.17	20.25	20.50	0.25
	KWB-10R	11/04/20	19.00	22.10	3.10	3.17	1.59	19.75	19.90	0.15
	MW-111	09/29/20	27.20	28.60	1.40	0.40	1.59	28.15	28.25	0.10
	MW-112	03/11/20	22.70	24.35	1.65	1.59	2.11	23.20	23.44	0.24
	MW-112	04/08/20	23.00	24.80	1.80	0.92	1.32	23.80	23.82	0.02
	MW-112	04/28/20	23.20	25.10	1.90	0.92	2.64	24.75	24.78	0.03
	MW-112	07/01/20	23.20	25.20	2.00	1.45	2.11	23.90	24.05	0.15
	MW-112	07/21/20	23.13	25.12	1.99	1.59	1.98	24.80	24.82	0.02
	MW-112	08/12/20	23.15	25.30	2.15	1.98	2.64	24.70	24.75	0.05
	MW-112	09/29/20	23.30	25.35	2.05	1.32	2.51	24.70	24.80	0.10
	MW-112	11/04/20	23.40	25.65	2.25	2.11	1.72	--	25.20	--
	MW-127	04/21/20	22.10	23.65	1.55	2.38	5.02	22.27	22.28	0.01
	MW-127	07/21/20	22.70	24.50	1.80	4.76	7.93	23.25	23.40	0.15
	MW-127	08/12/20	22.75	24.60	1.85	2.51	3.96	23.50	23.53	0.03
	MW-127	09/29/20	22.95	24.85	1.90	2.77	7.26	23.33	24.05	0.72
	MW-128	04/21/20	17.55	19.85	2.30	0.92	1.32	17.95	18.85	0.90
	MW-128	04/28/20	17.80	19.59	1.79	0.92	2.11	18.20	18.25	0.05
	MW-128	07/01/20	18.50	20.60	2.10	1.72	4.76	19.00	19.45	0.45
	MW-128	07/29/20	18.70	20.80	2.10	1.06	3.70	19.15	19.40	0.25
	MW-131	09/29/20	26.00	27.35	1.35	0.40	3.57	26.30	26.40	0.10
	MW-132	03/11/20	20.50	23.00	2.50	2.25	4.23	21.00	21.53	0.53
	MW-132	04/08/20	20.95	23.59	2.64	1.06	3.96	21.45	21.83	0.38
	MW-132	04/28/20	21.25	23.85	2.60	1.85	6.34	21.75	21.90	0.15
	MW-132	07/01/20	21.30	23.90	2.60	3.17	4.76	21.77	21.99	0.22
	MW-132	07/21/20	21.25	23.70	2.45	1.59	6.60	21.77	21.80	0.03
	MW-132	09/29/20	21.40	23.82	2.42	3.83	1.85	21.80	22.45	0.65
	MW-132	11/04/20	21.60	24.15	2.55	1.98	3.96	22.15	22.18	0.03
	MW-133	04/08/20	21.00	22.40	1.40	0.53	1.06	21.23	21.35	0.12
	MW-133	09/29/20	19.80	20.25	0.45	0.40	2.38	19.82	19.84	0.02
	MW-133	11/04/20	20.10	21.75	1.65	1.32	2.91	20.40	20.63	0.23
South Refinery	KWB-4	04/08/20	25.70	27.77	2.07	1.06	9.51	27.05	27.10	0.05
	KWB-4	04/21/20	26.02	27.35	1.33	1.45	2.51	26.90	26.93	0.03
	KWB-5	08/12/20	25.80	28.05	2.25	1.06	3.04	--	26.75	--
	KWB-5	09/29/20	25.99	28.15	2.16	0.40	3.43	26.55	26.75	0.20
	KWB-6	03/11/20	23.25	25.00	1.75	1.19	3.96	23.67	23.77	0.10
	KWB-6	04/08/20	23.90	25.17	1.27	0.53	1.59	24.12	24.15	0.03
	KWB-6	04/28/20	23.29	26.25	2.96	0.92	4.76	24.70	24.72	0.02
	KWB-6	07/01/20	23.95	26.50	2.55	1.19	4.36	--	24.67	--
	KWB-6	08/12/20	23.90	26.45	2.55	1.19	2.64	24.60	24.62	0.02
	KWB-6	09/29/20	24.15	26.55	2.40	0.79	2.11	24.70	24.85	0.15
	KWB-6	11/04/20	24.69	26.90	2.21	1.45	4.09	--	24.95	--
	MW-107	07/01/20	16.65	18.75	2.10	2.11	--	18.85	18.90	0.05
	MW-107	07/29/20	16.93	19.00	2.07	1.32	0.79	18.89	18.90	0.01
					Total Recovered Volume:	**101.93**	**167.62**			

Definitions:

btoc = below top of casing

ft. = feet

gal = gallon

PSH = Phase separated hydrocarbon

Released to Imaging: 11/21/2023 10:16:55 AM

Appendix A

BORING LOG and WELL CONSTRUCTION

MW-53R

Client: HollyFrontier Navajo Refining LLC	TRC Project #: 387273.0000.0000
Site: Artesia Refinery	Start Date: 9/23/2020
Address: 501 E Main St, Artesia NM	Finish Date: 9/23/2020
Project: Damaged Well Replacement	Permit #: RA-12950
Drilling Company: Talon LPE — Drilling Crew: R. Rodriguez & crew	TRC Site Rep.: John O'Neal
Drilling Method: Hollow-Stem Auger	TRC Reviewer: Jason Jayroe
Boring Diameter (in): 7.88 — Boring Depth (ft bgs): 24.0	Coord. System: NAVD88
Sampling Method: 5-ft Continuous Core Sampler	Northing: 673615.989
Blow Count Method: NA	Easting: 521463.004
Field Screening Parameter: Volatile Organic Compounds	Elevation Datum: NAD 1983
Meter: MiniRAE PID — Units: ppm	Ground Elevation (ft): 3368.87
Well Depth (ft bgs): 24.0 — Well Depth (ft toc): 24.30	Well Elevation (ft): 3368.75
Casing Length (ft): 13.93 — Screen Length (ft): 10.0	Well Measuring Point: Top of casing
Surface Completion: Flush mount steel cover with concrete pad	Depth to Water (ft toc): 14.21
Well Development: Pump and surge 20 gallons	Date/Time: 9/25/2020 09:25

Elevation (ft)	Depth (ft)	Water Level	Sample Analytical	Field Screening (PID)	Lithology	Lithologic Description	Well Construction Diagram
3370	0			2.9			Flush Mount Steel Cover with Concrete Pad
				1.1		ML: Silt (grey/brown), unconsolidated, dry, friable, no odor, no staining.	
				NR			2-inch Sch. 40 PVC Riser Pipe
3365	5			0.0			
				1.0		CL: Silty clay (brown), trace fine sand, trace caliche (white), dry, no odor, no staining.	Portand Cement
				NR			
				NR		Increase in caliche at 7.5 feet bgs.	
				0.4			
3360	10			0.4			3/8-inch Hydrated Bentonite Chips
				0.3			
				NR		CL: Clay (light brown), few silt, some caliche, moderate plasticity, medium stiffness, moist, no odor, no staining.	
				NR			
				0.4			8/16 Grade Silica Sand
				0.6			
3355	15	▼		0.8			
				NR			
				4.0			
				2.0			2-inch Sch. 40 PVC 0.010" Slotted Screen
				2.0			
3350	20			NR		CL: Clay (light brown), some caliche (white), moderate plasticity, stiff, moist, no odor, no staining.	
				0.3			
				0.3			
				0.6			
				0.3			
3345	25					THIS WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT	2-inch Sch. 40 PVC Endcap, 0.25 feet

BORING LOG and WELL CONSTRUCTION

MW-145

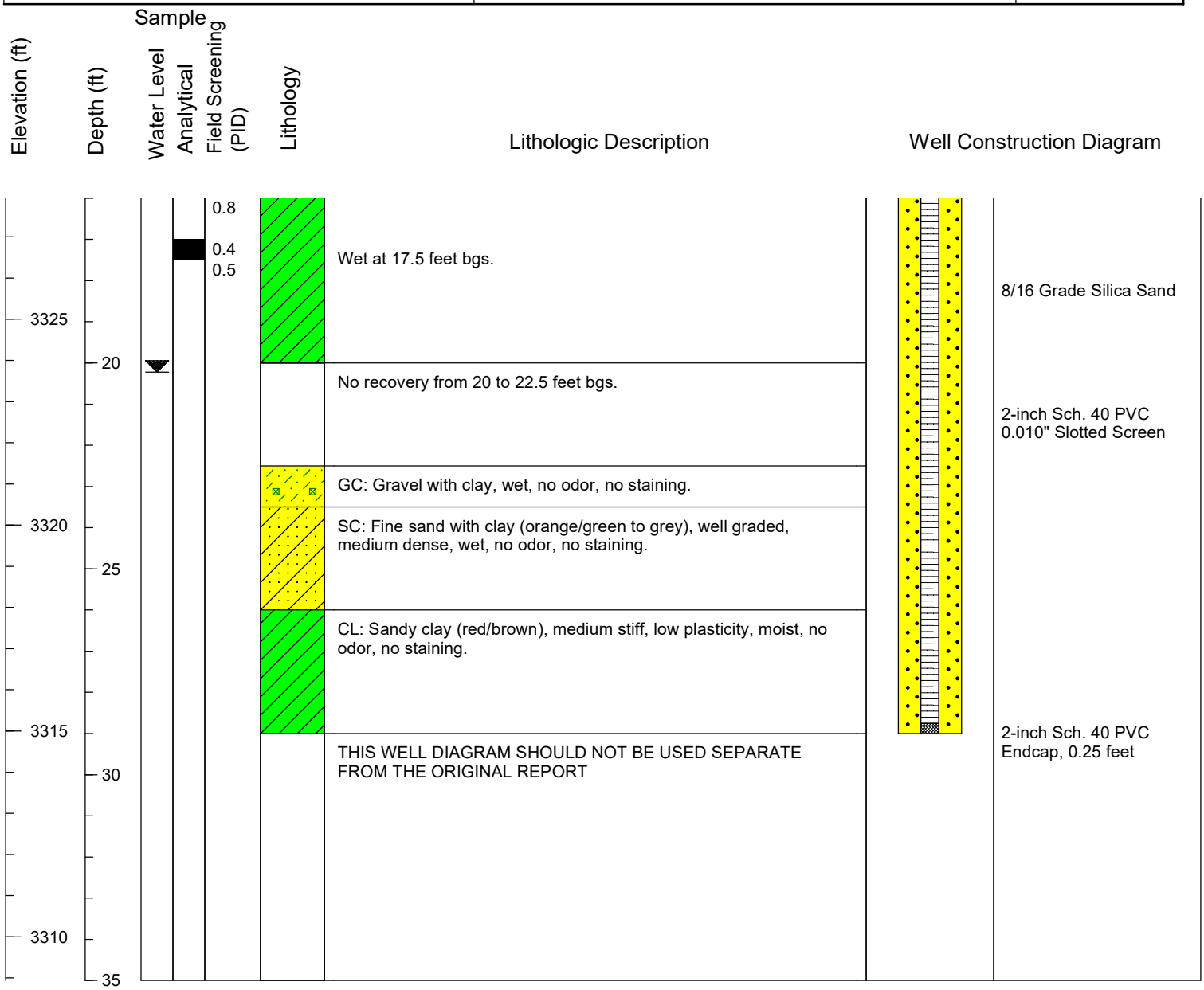
Client: HollyFrontier Navajo Refining LLC	TRC Project #: 403125.0000.0000
Site: Artesia Refinery	Start Date: 9/22/2020
Address: 501 E Main St, Artesia NM	Finish Date: 9/22/2020
Project: Downgradient Well Installation	Permit #: RA-12950
Drilling Company: Talon LPE — Drilling Crew: R. Rodriguez & crew	TRC Site Rep.: John O'Neal
Drilling Method: Hollow-Stem Auger	TRC Reviewer: Jason Jayroe
Boring Diameter (in): 7.88 — Boring Depth (ft bgs): 29	Coord. System: NAVD88
Sampling Method: 5-ft Continuous Core Sampler	Northing: 672914.535
Blow Count Method: NA	Easting: 527283.916
Field Screening Parameter: Volatile Organic Compounds	Elevation Datum: NAD 1983
Meter: MiniRAE PID — Units: ppm	Ground Elevation (ft): 3343.94
Well Depth (ft bgs): 29.0 — Well Depth (ft toc): 32.36	Well Elevation (ft): 3347.07
Casing Length (ft): 12.11 — Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Stick-up casing w/ steel protective cover and concrete pad	Depth to Water (ft toc): 20.22
Well Development: Pump and surge 52 gallons	Date/Time: 9/25/2020

Elevation (ft)	Depth (ft)	Sample	Water Level	Analytical	Field Screening (PID)	Lithology	Lithologic Description	Well Construction Diagram
3345	0				0.3			Steel Protective Cover; 2-inch Sch. 40 PVC Riser Pipe; Concrete Pad
					0.2		ML: Clayey silt (light tan), unconsolidated, dry, no odor, no staining.	
					0.4			Portand Cement
3340					0.4		Trace caliche nodules at 4 feet bgs.	
	5				0.1		No recovery from 5 to 7 feet bgs.	3/8-inch Hydrated Bentonite Chips
					NR			
					NR			
					0.3		CL: Silty clay, some very fine sand (white/tan), few caliche nodules (white), very stiff, low plasticity, dry, no odor, no staining.	
					0.4			8/16 Grade Silica Sand
3335					NR			
	10				0.1			
					NR			
					0.8			
					0.8			2-inch Sch. 40 PVC 0.010" Slotted Screen
					0.8			
3330					0.3		CL: Sandy clay (grey to light brown), some caliche nodules (white/tan), low plasticity, moist, no odor, no staining.	
	15				0.7			

BORING LOG and WELL CONSTRUCTION

MW-145

Client: HollyFrontier Navajo Refining LLC	Site: Artesia Refinery	Page 2 of 2



BORING LOG and WELL CONSTRUCTION

MW-146

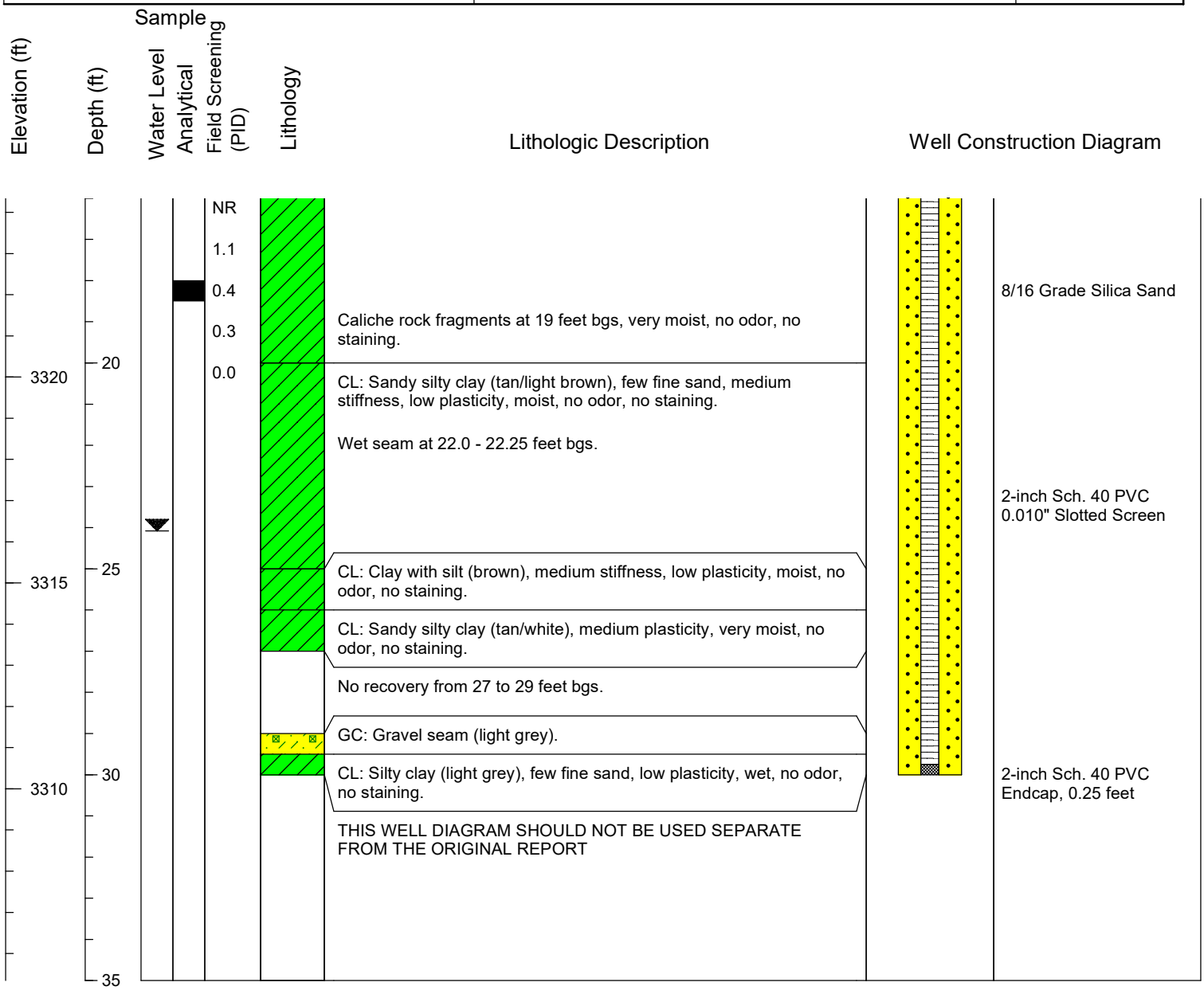
Client: HollyFrontier Navajo Refining LLC	TRC Project #: 403125.0000.0000
Site: Artesia Refinery	Start Date: 9/22/2020
Address: 501 E Main St, Artesia NM	Finish Date: 9/23/2020
Project: Downgradient Well Installation	Permit #: RA-12950
Drilling Company: Talon LPE — Drilling Crew: R. Rodriguez & crew	TRC Site Rep.: John O'Neal
Drilling Method: Hollow-Stem Auger	TRC Reviewer: Jason Jayroe
Boring Diameter (in): 7.88 — Boring Depth (ft bgs): 30	Coord. System: NAVD88
Sampling Method: 5-ft Continuous Core Sampler	Northing: 673173.048
Blow Count Method: NA	Easting: 527636.606
Field Screening Parameter: Volatile Organic Compounds	Elevation Datum: NAD 1983
Meter: MiniRAE PID — Units: ppm	Ground Elevation (ft): 3340.34
Well Depth (ft bgs): 30.0 — Well Depth (ft toc): 33.70	Well Elevation (ft): 3343.09
Casing Length (ft): 13.45 — Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Stick-up casing w/ steel protective cover and concrete pad	Depth to Water (ft toc): 24.08
Well Development: Pump and surge 50 gallons	Date/Time: 9/25/2020

Elevation (ft)	Depth (ft)	Sample	Water Level	Analytical	Field Screening (PID)	Lithology	Lithologic Description	Well Construction Diagram
3340	0				0.0		ML: Silt (white/tan), unconsolidated, dry, no odor, no staining.	Steel Protective Cover; 2-inch Sch. 40 PVC Riser Pipe; Concrete Pad
					0.1			Portand Cement
					0.0			
					0.1		Trace caliche nodules (white) at 4 feet bgs.	
3335	5				0.0		CL: Silty clay (light red), trace fine sand (white), medium to high stiffness, low plasticity, dry, trace to some caliche deposits, caliche content and stiffness decreases with depth, no odor, no staining.	3/8-inch Hydrated Bentonite Chips
					0.0			
					0.2		No recovery from 7.5 to 10 feet bgs.	
					NR			
					NR			
3330	10				NR		Slightly moist at 10 feet bgs.	8/16 Grade Silica Sand
					NR			
					NR			
					0.5			2-inch Sch. 40 PVC 0.010" Slotted Screen
					0.4			
3325	15				0.1		CL: Silty clay (red/brown), few fine sand, medium stiffness, medium plasticity, moist, no odor, no staining.	

BORING LOG and WELL CONSTRUCTION

MW-146

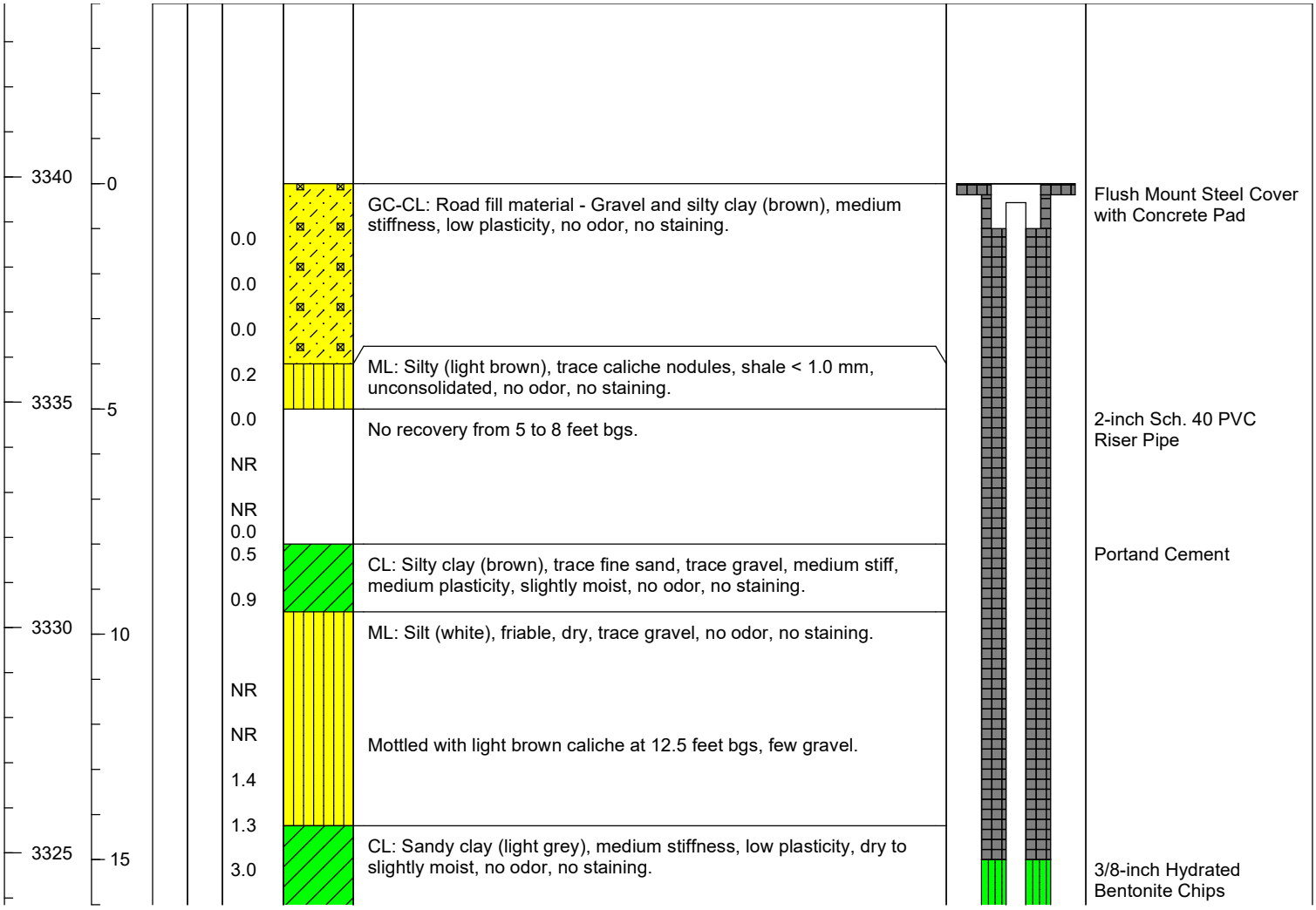
Client: HollyFrontier Navajo Refining LLC | Site: Artesia Refinery | Page 2 of 2



BORING LOG and WELL CONSTRUCTION

MW-147

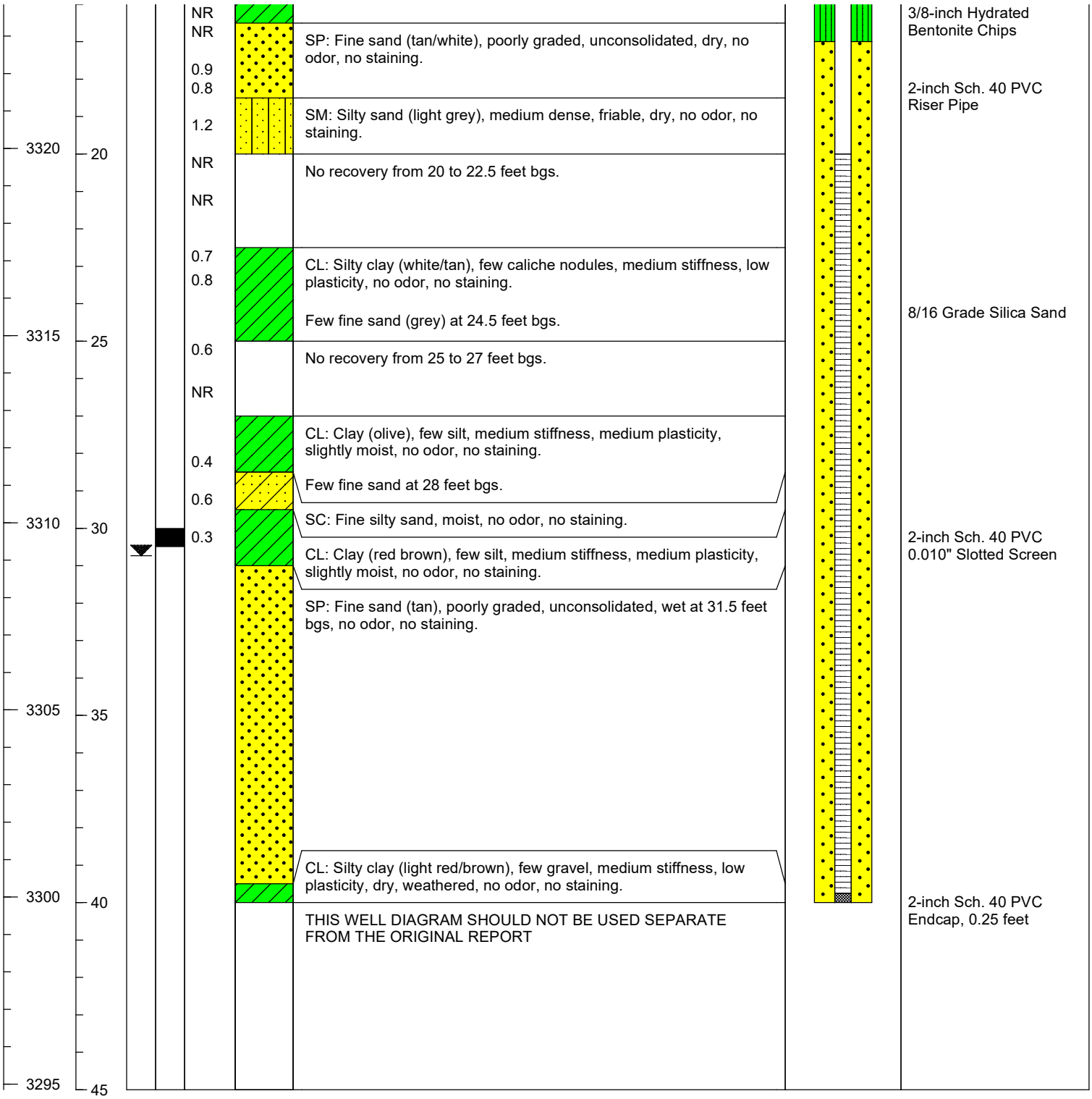
Client: HollyFrontier Navajo Refining LLC	TRC Project #: 403125.0000.0000
Site: Artesia Refinery	Start Date: 9/24/2020
Address: 501 E Main St, Artesia NM	Finish Date: 9/24/2020
Project: Downgradient Well Installation	Permit #: RA-12950
Drilling Company: Talon LPE — Drilling Crew: R. Rodriguez & crew	TRC Site Rep.: John O'Neal
Drilling Method: Hollow-Stem Auger	TRC Reviewer: Jason Jayroe
Boring Diameter (in): 7.88 — Boring Depth (ft bgs): 40.0	Coord. System: NAVD88
Sampling Method: 5-ft Continuous Core Sampler	Northing: 671265.079
Blow Count Method: NA	Easting: 530212.282
Field Screening Parameter: Volatile Organic Compounds	Elevation Datum: NAD 1983
Meter: MiniRAE PID — Units: ppm	Ground Elevation (ft): 3339.85
Well Depth (ft bgs): 40.0 — Well Depth (ft toc): 39.83 (HMI)	Well Elevation (ft): 3339.48
Casing Length (ft): 19.58 — Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Flush mount steel cover with concrete pad	Depth to Water (ft toc): 30.73
Well Development: Pump and surge 50 gallons	Date/Time: 9/25/2020



BORING LOG and WELL CONSTRUCTION

MW-147

Client: HollyFrontier Navajo Refining LLC | Site: Artesia Refinery | Page 2 of 2



BORING LOG and WELL CONSTRUCTION

MW-148

Client: HollyFrontier Navajo Refining LLC	TRC Project #: 403125.0000.0000
Site: Artesia Refinery	Start Date: 9/24/2020
Address: 501 E Main St, Artesia NM	Finish Date: 9/24/2020
Project: Downgradient Well Installation	Permit #: RA-12950
Drilling Company: Talon LPE — Drilling Crew: R. Rodriguez & crew	TRC Site Rep.: John O'Neal
Drilling Method: Hollow-Stem Auger	TRC Reviewer: Jason Jayroe
Boring Diameter (in): 7.88 — Boring Depth (ft bgs): 40.0	Coord. System: NAVD88
Sampling Method: 5-ft Continuous Core Sampler	Northing: 670534.369
Blow Count Method: NA	Easting: 530218.563
Field Screening Parameter: Volatile Organic Compounds	Elevation Datum: NAD 1983
Meter: MiniRAE PID — Units: ppm	Ground Elevation (ft): 3342.79
Well Depth (ft bgs): 40.0 — Well Depth (ft toc): 40.25	Well Elevation (ft): 3342.59
Casing Length (ft): 20.0 — Screen Length (ft): 20.0	Well Measuring Point: Top of casing
Surface Completion: Flush mount steel cover with concrete pad	Depth to Water (ft toc): 34.80
Well Development: Pump and surge 30 gallons	Date/Time: 9/25/2020

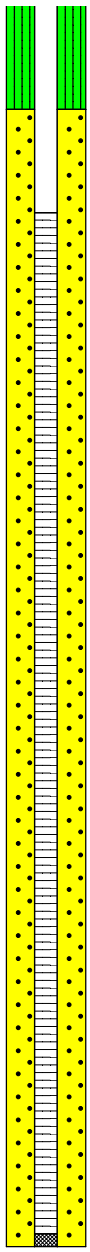
Elevation (ft)	Depth (ft)	Sample	Water Level	Analytical	Field Screening (PID)	Lithology	Lithologic Description	Well Construction Diagram
3345	0				0.2			Flush Mount Steel Cover with Concrete Pad
					0.4		GC-CL: Road fill material - Gravel and silty clay (brown), medium stiffness, low plasticity, no odor, no staining.	
3340					1.9			
					0.7		CL: Clayey silt (light brown), dry, no odor, no staining.	
	5				0.4		ML: Silt (white), friable, dry to slightly moist, no odor, no staining.	2-inch Sch. 40 PVC Riser Pipe
					NR			
					0.6			
3335					0.8			
					0.3		Some caliche near 8 feet bgs.	Portand Cement
					0.8		CL: Silty clay (brown), few caliche (white), medium stiffness, low plasticity, caliche content increases with depth, no odor, no staining.	
	10				NR			
					NR			
3330					0.6			
					0.6		GC: Gravel layer with some caliche.	
	15				0.5		No recovery from 15 to 18 feet bgs.	3/8-inch Hydrated Bentonite Chips

TRC **BORING LOG and WELL CONSTRUCTION**

MW-148

Client: HollyFrontier Navajo Refining LLC | Site: Artesia Refinery | Page 2 of 2

Elevation (ft)	Depth (ft)	Sample	Water Level	Analytical	Field Screening (PID)	Lithology	Lithologic Description
					NR		
					NR		
3325					NR		
					0.4		CL: Silty clay, few very fine sand (olive), medium stiffness, low plasticity, moist, no odor, no staining.
					0.9		CL: Silty clay (light brown), abundant caliche (white), medium stiffness, low plasticity, dry, no odor, no staining.
	20				NR		No recovery from 20 to 22.5 feet bgs.
3320					0.4		SP: Fine sand (light brown), poorly graded, unconsolidated, slightly moist, no odor, no staining.
					0.4		
					0.4		CL: Sandy clay (light brown) medium stiffness, low plasticity, slightly moist, no odor, no staining.
	25				0.5		No recovery from 25 to 27.5 feet bgs.
					NR		
					NR		
3315					0.6		CL: Sandy clay (light brown), some caliche, medium stiffness, low plasticity, slightly moist, no odor, no staining.
					0.6		GC: Caliche gravel (white), wet, no odor, no staining.
	30				0.6		CL: Clay (red/brown), few silt, low plasticity, dry, no odor, no staining.
							CL: Silty clay (greyish brown), few fine sand, wet, no odor, no staining.
3310							CL: Clay (brown/green), trace sand, medium stiffness, medium plasticity, moist, no odor, no staining.
							CL: Sandy clay, wet, no odor, no staining.
	35						SP: Fine sand (light brown), poorly graded, medium dense, wet, no odor, no staining.
3305							
	40						THIS WELL DIAGRAM SHOULD NOT BE USED SEPARATE FROM THE ORIGINAL REPORT
3300							
	45						



3/8-inch Hydrated Bentonite Chips

2-inch Sch. 40 PVC Riser Pipe

8/16 Grade Silica Sand

2-inch Sch. 40 PVC 0.010" Slotted Screen

2-inch Sch. 40 PVC Endcap, 0.25 feet

wood.
17325 Park Row
Houston, TX 77084
(832) 809-8000

WELL NUMBER MW-62R

CLIENT HollyFrontier Navajo Refining LLC
PROJECT NAME Artesia, New Mexico Refinery
PROJECT NUMBER 6703200049
PROJECT LOCATION Artesia, New Mexico
DATE STARTED 9/1/20 **COMPLETED** 9/3/20
TOC ELEVATION 3368.5254 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Tolunay-Wong Engineers
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger 0-5ft bgs; DPT 5-25ft bgs; HSA - well install
AT TIME OF DRILLING ---
LOGGED BY E. Sosa **CHECKED BY**
AT END OF DRILLING ---
NOTES Northing: 672656.0151, Easting: 522699.1932
AFTER DRILLING 16.33 ft

DEPTH (ft)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						Casing Type: 2" PVC
			SC		(SC) CLAYEY SAND with some 0.25-1" subangular to subrounded gravel, medium plasticity, brown, dry, no staining, no odor	0 - 1ft bgs: Cement Grout 1 - 3ft bgs: Bentonite Seal
					3.0	
					(CL) SANDY CLAY, medium plasticity, dark brown, dry, no staining, no odor, carbonate nodules present	
5		0				
		0			Medium to high plasticity, brown, moist	
		2			Staining present, slight odor	
		6				
		30				
10		5			Moderate odor	
		25				
		110				
		1365			Heavy odor	
		1381	CL			3 - 25ft bgs: Filter Pack 4.5 - 24.5ft bgs: Well Screen
15		350				
	GB MW-62R-16	1405			Moderate odor	
		1027				
		275				
		50				
20		32				
		110				
		400				
		160				
					24.0	
25	GB MW-62R-25	20	CH		(CH) CLAY, medium to high plasticity, dark gray, moist, staining, slight odor	
					25.0	

Bottom of borehole at 25.0 feet.

Acronyms/Abbreviations
" - inch/inches
bgs - below ground surface
DPT - direct push technology
ft - foot/feet
GB - grab sample
HSA - hollow stem auger
PID - photoionization detector
ppm - parts per million
U.S.C.S - United Soil Classification System

GENERAL BH / TP / WELL - GINT STD US.GDT - 2/10/21 15:31 - I:\CLIENT\HOLLYFRONTIER\ARTESIANM\6703200049 - HF NESTED WELL IMPLEMENTATION\9.0 DRAFT REPORTS\WELL LOGS\NAVAJO.GPJ

wood.
17325 Park Row
Houston, TX 77084
(832) 809-8000

WELL NUMBER MW-137A

CLIENT HollyFrontier Navajo Refining LLC
PROJECT NAME Artesia, New Mexico Refinery
PROJECT NUMBER 6703200049
PROJECT LOCATION Artesia, New Mexico
DATE STARTED 9/2/20 **COMPLETED** 9/3/20
TOC ELEVATION 3363.4542 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Tolunay-Wong Engineers
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger 0-5ft bgs; DPT 5-15ft bgs; HSA - well install
AT TIME OF DRILLING ---
LOGGED BY E. Sosa **CHECKED BY**
AT END OF DRILLING ---
NOTES Northing: 672872.2025, Easting: 523039.4696
AFTER DRILLING --- Dry

DEPTH (ft)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		4	SC		(SC) CLAYEY SAND, low plasticity, brown, dry, no staining, slight odor, carbonate nodules present	Casing Type: 2" PVC
		6			1.0	0 - 1ft bgs: Cement Grout
		10			(CL) SANDY CLAY, medium plasticity, dark gray, dry, dark staining, moderate odor	1 - 3ft bgs: Bentonite Seal
		60			Low to medium plasticity, light gray, stained, moderate odor	
5		50			Medium plasticity, light gray-green, moist, heavy staining, heavy odor, carbonate nodules present	
		5000+				
		5000+				
		5000+				
		5000+	CL			
		5000+				
10		5000+			Low to medium plasticity, light gray, some caliche present	3 - 15.45ft bgs: Filter Pack
		5000+				5 - 15ft bgs: Well Screen
		5000+				
	GB MW-137R-14	5000+				
	GB MW-137R-15	5000+				
15					Medium to high plasticity, light gray-green	
					15.5	

Bottom of borehole at 15.5 feet.

Acronyms/Abbreviations
" - inch/inches
bgs - below ground surface
DPT - direct push technology
ft - foot/feet
GB - grab sample
HSA - hollow stem auger
PID - photoionization detector
ppm - parts per million
U.S.C.S - United Soil Classification System

GENERAL BH / TP / WELL - GINT STD US.GDT - 2/10/21 15:31 - I:\CLIENT\HOLLYFRONTIER\ARTESIANM\6703200049 - HF NESTED WELL IMPLEMENTATION\9.0 DRAFT REPORTS\WELL LOGS\NAVAJO.GPJ

wood.
17325 Park Row
Houston, TX 77084
(832) 809-8000

WELL NUMBER MW-138A

PAGE 1 OF 1

CLIENT HollyFrontier Navajo Refining LLC
PROJECT NAME Artesia, New Mexico Refinery
PROJECT NUMBER 6703200049
PROJECT LOCATION Artesia, New Mexico
DATE STARTED 9/2/20 **COMPLETED** 9/3/20
TOC ELEVATION 3364.5557 ft **HOLE SIZE** 8"
DRILLING CONTRACTOR Tolunay-Wong Engineers
GROUND WATER LEVELS:
DRILLING METHOD Hand Auger 0-5ft bgs; DPT 5-15ft bgs; HSA - well install
AT TIME OF DRILLING ---
LOGGED BY E. Sosa **CHECKED BY**
AT END OF DRILLING ---
NOTES Northing: 672924.4891, Easting: 522916.0881
AFTER DRILLING --- Dry

DEPTH (ft)	SAMPLE TYPE NUMBER	PID (ppm)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0		1	SC		(SC) CLAYEY SAND with trace 0.5-1" subangular to subrounded gravel, low to medium plasticity, brown, dry, no staining, no odor	Casing Type: 2" PVC
		2				0 - 1ft bgs: Cement Grout
		6				1 - 3ft bgs: Bentonite Seal
		11			(CL) SANDY CLAY, low to medium plasticity, black-gray, dry, heavy staining, light odor	
		10			Whitish gray, stained, odor, some caliche present	
5		40				
		230			Medium to high plasticity, grayish greenish white, carbonate nodules present	
		384				
		464	CL			
		1740				
10		3701				3 - 15.65ft bgs: Filter Pack
		1983				5 - 15ft bgs: Well Screen
		1309				
	GB MW-138R-14	4903				
	GB MW-138R-15	2205			Low to medium plasticity, brown, no carbonate nodules	
15						

1.5
15.7

Bottom of borehole at 15.7 feet.

Acronyms/Abbreviations
" - inch/inches
bgs - below ground surface
DPT - direct push technology
ft - foot/feet
GB - grab sample
HSA - hollow stem auger
PID - photoionization detector
ppm - parts per million
U.S.C.S - United Soil Classification System

GENERAL BH / TP / WELL - GINT STD US.GDT - 2/10/21 15:31 - I:\CLIENT\HOLLYFRONTIER\ARTESIANM\6703200049 - HF NESTED WELL IMPLEMENTATION\9.0 DRAFT REPORTS\WELL LOGS\NAVAJO.GPJ

Appendix B

Released Imaging: 11/21/2023 10:05:34 AM

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 3366 ft. Lat: 32.7547° N Lon: -104.3835° W
Station: **ARTESIA 6 S, NM US USC00290600**

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 01/28/2021

National Centers for Environmental Information
151 Patton Avenue
Asheville, North Carolina 28801

Observation Time Temperature: 0730 Observation Time Precipitation: 07

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	06	01	90	57	64	0.00		0.0		0.0	154.7	0.38	5	72	71			
2020	06	02	89	61	66	0.00		0.0		0.0	180.8	0.38	5	72	72			
2020	06	03	94	66	72	0.00		0.0		0.0	144.2	0.30	5	73	71			
2020	06	04	96	67	74	0.00		0.0		0.0	129.2	0.32	5	75	75			
2020	06	05	102	72	74	0.00		0.0		0.0	221.8	0.39	5	75	73			
2020	06	06	103	71	73	0.00		0.0		0.0	313.8	0.51	5	76	75			
2020	06	07	99	68	73	0.00		0.0		0.0	387.7	0.64	5	76	76			
2020	06	08	100	62	69	0.00		0.0		0.0	210.0	0.48	5	76	75			
2020	06	09	95	56	62	0.00		0.0		0.0	270.9	0.63	5	76	75			
2020	06	10	89	46	60	0.00		0.0		0.0	92.0	0.33	5	75	74			
2020	06	11	92	60	69	0.00		0.0		0.0	193.9	0.42	5	75	74			
2020	06	12	95	64	70	0.02		0.0		0.0	203.8	0.16	5	76	74			
2020	06	13	96	61	68	0.00		0.0		0.0	206.9	0.49	5	75	74			
2020	06	14	97	65	67	0.00		0.0		0.0	275.9	0.67	5	75	75			
2020	06	15	96	61	68	0.00		0.0		0.0	243.0	0.47	5	75	73			
2020	06	16	94	58	68	0.00		0.0		0.0	200.7	0.38	5	74	73			
2020	06	17	94	66	71	0.00		0.0		0.0	216.9	0.30	5	75	73			
2020	06	18	98	63	66	0.00		0.0		0.0	216.2	0.57	5	75	73			
2020	06	19	100	63	70	0.00		0.0		0.0	133.0	0.41	5	76	74			
2020	06	20	100	64	69	0.00		0.0		0.0	157.8	0.45	5	76	76			
2020	06	21	96	58	65	0.00		0.0		0.0	115.0	0.34	5	77	76			
2020	06	22	106	63	76	0.00		0.0		0.0	113.7	0.33	5	76	76			
2020	06	23	103	70	73	0.00		0.0		0.0	157.2	0.45	5	77	76			
2020	06	24	96	62	66	0.24		0.0		0.0	115.0	0.35	5	77	76			
2020	06	25	90	62	67	0.00		0.0		0.0	172.7	0.30	5	77	76			
2020	06	26	97	63	65	0.00		0.0		0.0	198.2	0.54	5	76	75			
2020	06	27	100	65	70	0.02		0.0		0.0	183.9	0.35	5	76	75			
2020	06	28	98	66	71	0.00		0.0		0.0	187.0	0.37	5	75	75			
2020	06	29	99	67	75	0.00		0.0		0.0	175.2	0.31	5	75	75			
2020	06	30	97	69	74	0.00		0.0		0.0	267.8	0.61	5	76	75			
Summary			97	63		0.28		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Received by OCD: 6/23/2021 4:05:29 PM

HMI Groundwater

Hydrologic Monitoring
1654 W. Sam Houston Pkwy. N.
Houston, Texas 77043

Phone 713.464.5206
Fax 713.464.5207

June 23, 2020

Ms. Julie Speer, P.G.
Project Manager
TRC
505 East Huntland Drive, Suite 250
Austin, Texas 78752

Subject: June 2020 (Spring) Groundwater Monitoring Event
Sitewide Gauging – June 15-16, 2020
Groundwater Sampling – June 15-19, 2020
Navajo Refining Company, Artesia, New Mexico

Dear Ms. Speer:

This document summarizes groundwater monitoring field activities conducted by Hydrologic Monitoring, LLC (HMI) on behalf of TRC at the Navajo Refining Company, Artesia Refinery, Artesia, New Mexico.

Contents

Field Activities Narrative
Table 1: (Gauging Data, GW Field Parameters, Well Inspections, & Analytical Program)
Groundwater Sampling SOP Memo
Daily Job Hazard Analysis (JHA) forms
Groundwater Sampling Forms and Field Instrument Calibration Log
(three (3) emails - forms in order of field-strategy shown in Table 1)
Chain-of-Custody Forms (one email)

Field Activities Narrative

1. Historically conducted in April, the 1H20 event was delayed until June, due to COVID 19 concerns. HMI conducted the *June 2020 (Spring) Groundwater Monitoring Event* (i.e., "SA" and "A" designations, only, in Table 1). Sitewide gauging was conducted June 15-16**,** 2020. Groundwater sampling (142 wells sampled) was conducted June 15-19**,** 2020.

2. Groundwater sampling was conducted in accordance with the Site Sampling and Analysis Plan, EPA guidance, and the attached Memorandum - Low-Flow Groundwater Monitoring Standard Operating Procedures, Navajo Refining Co. - Artesia, New Mexico. Per regulatory request, if measured LNAPL thickness was *less than* 0.03 feet, in any well scheduled for groundwater sampling, LNAPL was removed, and the well was sampled. If LNAPL thickness was equal to, or greater than 0.03 feet, in any well scheduled for sampling, the well was not sampled. Gauging data, groundwater field parameters, and well inspection information is summarized in Table 1. Samples were shipped overnight FedEx, to Pace National, Mt. Juliet, TN. The groundwater sampling process is documented on the attached groundwater sampling forms.

3. Field QA/QC Sampling (per Refinery Area):

   <u>Evaporation Ponds</u>
   Duplicates:
   Dup-EP-01 at MW-7A
   Dup-EP-02 at MW-22A
   Dup-EP-03 at MW-3
   Equipment Blanks:
   EB-EP-01 collected over decontaminated gauging probe after sampling at MW-74
   EB-EP-02 collected over decontaminated gauging probe after sampling at MW-124
   EB-EP-03 collected over decontaminated gauging probe after sampling at MW-5A
   EB-EP-04 collected over decontaminated gauging probe after sampling at MW-79
   Trip Blank-EP-01 (…this intended ID was inadvertently labeled as Trip Blank-EP-04)
   Trip Blank-EP-02
   Trip Blank-EP-03
   Trip Blank-EP-04

   <u>NCL</u>
   Duplicate:
   Dup-NCL-01 at NCL-49
   Equipment Blank:
   EB-NCL-01 collected over decontaminated gauging probe after sampling at NCL-32
   Trip Blank-NCL-01

   <u>TMD</u>
   Trip Blank-TMD-01

TEL
Duplicate:
Dup-TEL-01 at TEL-4
Equipment Blank:
EB-TEL-01 collected over decontaminated gauging probe after sampling at TEL-2
Trip Blank-TEL-01

REST ("rest" of the site)
Duplicates:
Dup-REST-01 at MW-113
Dup-REST-02 at MW-104
Dup-REST-03 at MW-134
Dup-REST-04 at MW-60
Dup-REST-05 at KWB-12B
Equipment Blanks:
EB-REST-01 collected over decontaminated gauging probe after sampling at MW-113
EB-REST-02 collected over decontaminated gauging probe after sampling at MW-104
EB-REST-03 collected over decontaminated gauging probe after sampling at MW-134
EB-REST-04 collected over decontaminated gauging probe after sampling at MW-60
EB-REST-05 collected over decontaminated gauging probe after sampling at KWB-12B
Trip Blank-REST-01
Trip Blank-REST-02
Trip Blank-REST-03
Trip Blank-REST-04

4. Notes:

1H20: Per TRC, Pace chain-of-custodies, reference PO # 150726

TRC notes from March 2020:
HMI's daily JHA forms to be included in deliverables package.
Email TRC "Estimated Field Hours" table, pre-event; follow with "Actual Field Hours" table, post-event.
MW-101 recompleted at-grade (due to inside-plant construction) (photo sent to TRC).
MW-129 recompleted at-grade (due to new asphalt loading rack) (photo sent to TRC).
MW-53 (well lost to road construction, was not yet replaced with new well "MW-53R", at 1H20 event).
Irrigation wells may experience upcoming changes, per TRC (TBD, replacements, etc.)
Renewed well-access to the Joy farm property may be upcoming, TBD, per TRC.

Training modules: "24HFNAV HOLLYFRONTIER SITE SPECIFIC ORIENTATION ARTESIA-NM", and an additional "LPS" module – both @ HASC, annually (December-cycle). HMI's DISA 2-yr backgound check/drug/alcohol requirements approved by safety-trailer personnel on 10-3-17 (updated 2019), as reported through HASC system; HMI will maintain its access status.

Per Navajo, purgewater is disposed in the pad sump (inside, then to the left of Main Gate entrance). Alternately, North Bundle Pad sump (fenced area of drums, etc.), notifying FCC control room prior to entrance.
Sitewide well and gate lock combinations: "2-0-1-3" (less often "2-0-0-2").
With suggested telephone notification, FedEx pickup from locked shed (35-25-39 combination) no earlier than approximately 14:00 daily, located across from Artesia Wool Co (access shed-area from "inside" Refinery).
North side of Hwy 82, east of site, gate with cable and combination lock (8810).
POTW bldg, check-in as needed, to borrow a key or get gate unlocked.
HMI borrows Navajo key sets for "Evaporation Ponds" & "TEL" at permitting (return keys upon event completion, each event). Navajo's Mr. Robert Combs, Randy Dade, Richard Orosco, for daily safety review and permit-issuing per team member (typically 8-10 HMI team-members).

Navajo completed well surface completion upgrades in a phased-approach, beginning 2018. HMI's well inspections are documented on respective well gauging and sampling forms. Well inspection items of potential concern (i.e., "Issues") are highlighted in yellow color (see Table 1).

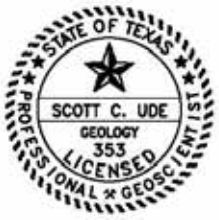
HMI appreciates the opportunity to assist TRC with this project. If you have any questions or would like additional information please feel free to call us at 713.464.5206.

Sincerely,

HYDROLOGIC MONITORING

Scott C. Ude

Scott C. Ude, P.G.



The seal appearing on this document was authorized by Scott C. Ude, P.G. 353 on June 23, 2020.

Attachments

cc: Dana Helbert, P.G., TRC-Austin

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label	PSH Expected? [b]	Gauging Frequency	Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
					Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																						Analytical Suite and Frequency [c]												
MW-6A	Monitoring	MDB	1	1	EP	16-Jun	1030	NP	11.64	0.00	19.04	16-Jun	1055	7.57	21.7	4,380	1.6	-139.7	6.5	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-6B	Monitoring	MDB		2	EP	16-Jun	1115	NP	11.47	0.00	52.28										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-85	Monitoring	MDB		3	EP	16-Jun	1810	8.82	8.95	0.13	20.34			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-86	Monitoring	MDB	2	4	EP	16-Jun	1800	NP	8.30	0.00	19.21	17-Jun	1415	6.96	23.6	7,110	1.2	-366.1	51.7	Clr, yellow tint, black particles	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]			SA [d]
MW-120	Monitoring	MDB	3	5	EP	16-Jun	1120	NP	10.67	0.00	28.00	16-Jun	1145	7.41	22.5	7,990	1.4	-148.5	6.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-121	Monitoring	MDB	4	6	EP	16-Jun	1205	NP	9.83	0.00	27.31	16-Jun	1230	7.47	21.3	5,640	1.4	-33.6	8.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-84	Monitoring	MDB	5	7	EP	16-Jun	1755	NP	9.49	0.00	20.56	17-Jun	1330	7.16	22.1	10,140	1.4	-117.6	7.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-122	Monitoring	MDB	6	8	EP	16-Jun	1730	NP	9.36	0.00	23.32	17-Jun	940	7.24	19.6	8,290	1.4	-83.6	52.6	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-81	Monitoring	MDB	7	9	EP	16-Jun	1735	NP	9.25	0.00	18.62	17-Jun	1025	7.26	20.8	5,990	1.5	38.3	5.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-80	Monitoring	MDB	8	10	EP	16-Jun	1740	NP	7.39	0.00	19.69	17-Jun	1110	7.23	19.3	6,070	1.4	13.0	6.8	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-79	Monitoring	MDB	9	11	EP	16-Jun	1745	NP	9.18	0.00	19.24	17-Jun	1155	7.10	20.0	9,070	1.5	-57.9	4.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-82	Monitoring	MDB	10	12	EP	16-Jun	1750	NP	8.51	0.00	20.02	17-Jun	1245	7.36	22.2	7,280	1.4	-150.7	3.5	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-74	Monitoring	MDB	11	13	EP	16-Jun	1250	NP	8.60	0.00	20.19	16-Jun	1315	7.19	20.6	10,430	1.3	65.5	4.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-73	Monitoring	MDB	12	14	EP	16-Jun	1345	NP	9.15	0.00	19.60	16-Jun	1420	7.33	20.4	11,860	1.3	-75.7	12.9	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-2A	Monitoring	MDB	13	15	EP	16-Jun	1715	NP	8.02	0.00	17.30	17-Jun	855	7.44	20.3	5,040	1.4	-124.9	5.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-2B	Monitoring	MDB		16	EP	16-Jun	1720	NP	9.95	0.00	52.00			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
MW-72	Monitoring	MDB	14	17	EP	16-Jun	1625	NP	6.65	0.00	13.93	16-Jun	1650	6.96	20.8	11,370	1.4	20.6	4.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
OCD-6	Monitoring	MDB	15	18	EP	16-Jun	1540	NP	7.51	0.00	26.69	16-Jun	1605	7.07	19.7	12,910	1.3	-78.4	4.6	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
OCD-7AR	Monitoring	MDB	16	19	EP	16-Jun	1445	NP	6.35	0.00	21.28	16-Jun	1510	7.14	22.3	12,950	1.3	-145.1	8.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
OCD-7B	Monitoring	MDB		20	EP	16-Jun	1525	NP	6.96	0.00	56.85										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
OCD-7C	Monitoring	MDB		21	EP	16-Jun	1530	NP	7.99	0.00	71.95			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
RW-#15C [e]	Recovery [d]	MDB		22	REST	16-Jun	940	18.71	18.99	0.28	22.30			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-48	Monitoring	MDB		23	REST	16-Jun	935	20.79	20.82	0.03	32.00			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Issue	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-130	Monitoring	MDB/BRH	17	24	REST	16-Jun	930	NP	22.49	0.00	45.00	17-Jun	1410	6.67	23.7	2,420	1.6	-32.8	8.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
KWB-4	Monitoring	MDB		25	REST	16-Jun	950	26.39	28.10	1.71	41.75			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
RW-19	Recovery [d]	MDB		26	REST	16-Jun	1000	27.25	27.30	0.05	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-76	Monitoring	SCD	18	27	EP	16-Jun	1625	NP	10.31	0.00	20.33	17-Jun	1325	6.81	22.8	7,170	1.8	-202.5	6.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-77	Monitoring	SCD	19	28	EP	16-Jun	1630	NP	8.60	0.00	20.52	17-Jun	1410	6.85	23.1	7,980	1.8	-177.4	5.5	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-78	Monitoring	SCD	20	29	EP	16-Jun	1635	NP	8.69	0.00	19.57	17-Jun	1455	7.04	21.1	4,410	1.8	-65.1	4.7	Clear, gold tint	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-75	Monitoring	SCD	21	30	EP	16-Jun	1640	NP	8.71	0.00	23.74	17-Jun	1540	7.24	21.5	7,340	1.1	-166.8	8.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected? [b]	Gauging Frequency	Analytical Suite and Frequency [c]											
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
MW-83	Monitoring	SCD	22	31	EP	16-Jun	1645	NP	8.56	0.00	19.91	17-Jun	1240	6.81	22.7	6,540	1.5	-49.2	7.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-3	Monitoring	SCD	23	32	EP	16-Jun	1650	NP	10.58	0.00	22.10	17-Jun	1140	7.01	21.7	6,870	1.8	-17.5	6.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-88	Monitoring	SCD	24	33	EP	16-Jun	1700	NP	9.00	0.00	20.31	16-Jun	1725	7.07	22.0	7,160	1.3	-144.0	6.8	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A
MW-22A	Monitoring	SCD	25	34	EP	16-Jun	1745	NP	8.12	0.00	22.65	17-Jun	1025	6.91	20.1	16,020	1.8	-34.8	6.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-22B	Monitoring	SCD		35	EP	16-Jun	1748	NP	7.72	0.00	54.66										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-10	Monitoring	SCD	26	36	EP	16-Jun	1751	NP	5.80	0.00	18.45	17-Jun	940	6.91	20.2	6,800	2.0	-111.9	5.4	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-123	Monitoring	SCD	27	37	EP	16-Jun	1755	NP	6.34	0.00	25.71	17-Jun	855	6.91	19.0	7,250	1.7	-121.5	5.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-4A	Monitoring	SCD	28	38	EP	16-Jun	1530	NP	10.82	0.00	16.55	16-Jun	1555	7.06	22.5	5,690	2.0	-175.2	7.0	Clr, black particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-4B	Monitoring	SCD		39	EP	16-Jun	1615	NP	10.60	0.00	72.37										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-5A	Monitoring	SCD	29	40	EP	16-Jun	1425	NP	8.55	0.00	20.15	16-Jun	1450	7.08	22.1	11,790	1.7	-117.5	6.9	Clr, black particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-5B	Monitoring	SCD		41	EP	16-Jun	1515	NP	8.08	0.00	53.54										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-5C	Monitoring	SCD		42	EP	16-Jun	1520	NP	8.25	0.00	71.64										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-7A	Monitoring	SCD	30	43	EP	16-Jun	1320	NP	8.74	0.00	18.65	16-Jun	1345	7.23	21.0	9,870	1.3	-113.9	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-7B	Monitoring	SCD		44	EP	16-Jun	1415	NP	8.52	0.00	52.56										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
OCD-8A	Monitoring	SCD	31	45	EP	16-Jun	1225	NP	8.85	0.00	20.74	16-Jun	1250	7.01	21.4	18,540	1.8	-146.9	6.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
OCD-8B	Monitoring	SCD		46	EP	16-Jun	1310	NP	7.98	0.00	56.65										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
KWB-P4	Monitoring	BRH		47	REST						30.26			DO NOT ADDRESS IN 1H20, per Navajo												B	B	B	-	B	-	-	-	-	-			-
MW-25	Monitoring	BRH	32	48	TMD	16-Jun	1240	NP	12.82	0.00	28.18	17-Jun	910	7.30	18.8	3,530	1.6	34.4	3.8	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
NP-8	Monitoring	BRH		49	TMD	16-Jun	1245	NP	11.15	0.00	>14.95			Not in sampling program; Navajo added PVC riser in 1H18							Yes	Issue	Yes	Yes		SA	Not in sampling program										
MW-1R	Monitoring	BRH	33	50	EP	16-Jun	1250	NP	9.04	0.00	20.63	17-Jun	1000	7.25	18.2	5,420	1.5	-116.9	3.2	Clear	Yes	Issue	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-15	Monitoring	BRH	34	51	EP	16-Jun	1255	NP	9.63	0.00	21.70	17-Jun	1045	7.34	19.3	4,270	1.6	25.8	4.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
OCD-1R	Monitoring	BRH/OJD	35	52	EP	16-Jun	1305	NP	9.50	0.00	23.74	17-Jun	1415	7.08	27.3	6,070	1.3	-28.5	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
OCD-2A	Monitoring	BRH/OJD	36	53	EP	16-Jun	1310	NP	9.16	0.00	27.56	17-Jun	1325	7.10	25.3	6,810	2.1	-19.5	5.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A
OCD-2B	Monitoring	BRH		54	EP	16-Jun	1315	NP	10.50	0.00	50.38			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program										
OCD-3	Monitoring	BRH/OJD	37	55	EP	16-Jun	1340	NP	9.78	0.00	25.20	17-Jun	1145	7.35	26.3	3,810	2.1	-11.7	5.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A
OCD-4	Monitoring	BRH/OJD	38	56	EP	16-Jun	1345	NP	9.35	0.00	25.41	17-Jun	1055	7.12	25.4	13,120	2.4	-19.5	7.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A
MW-11A	Monitoring	BRH/OJD	39	57	EP	16-Jun	1325	NP	8.18	0.00	22.01	17-Jun	1235	6.59	26.7	16,190	2.2	-38.5	2.8	Clr, orange particles	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	SA	SA			SA
MW-11B	Monitoring	BRH		58	EP	16-Jun	1330	NP	7.98	0.00	47.30										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
OCD-5	Monitoring	BRH/OJD	40	59	EP	16-Jun	1350	NP	7.61	0.00	25.41	17-Jun	1010	6.96	24.7	11,660	2.8	-77.8	37.8	Sl. Cloudy, orange tint	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-87	Monitoring	BRH	41	60	EP	16-Jun	1430	NP	7.99	0.00	20.39	16-Jun	1545	7.19	21.2	11,570	1.1	-50.3	2.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label	PSH Expected? [b]	Gauging Frequency	Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
					Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																					Analytical Suite and Frequency [c]												
MW-18A	Monitoring	BRH	42	61	EP	16-Jun	1440	NP	8.41	0.00	22.58	16-Jun	1630	7.15	19.4	15,510	1.1	-189.8	1.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	SA	SA	SA	SA		SA
MW-18B	Monitoring	BRH		62	EP	16-Jun	1445	NP	8.42	0.00	50.59										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
MW-18T	Monitoring	BRH		63	EP	16-Jun	1450	NP	8.53	0.00	50.57			Not in sampling program; Navajo added PVC riser in 1H18							Yes	Yes	Yes	Yes		SA	Not in sampling program											
MW-70	Monitoring	BRH	43	64	EP	16-Jun	1500	NP	8.02	0.00	22.05	16-Jun	1800	7.09	20.5	5,970	1.9	-94.8	8.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	A	A			A
MW-124	Monitoring	BRH	44	65	EP	16-Jun	1510	NP	8.92	0.00	22.00	16-Jun	1710	7.09	18.9	10,240	1.4	-122.9	20.4	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-52	Monitoring	BRH	45	66	REST	16-Jun	1120	NP	20.83	0.00	34.67	17-Jun	1320	6.97	21.2	2,560	1.4	-202.4	4.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-109	Monitoring	BRH	46	67	REST	16-Jun	1115	NP	18.89	0.00	29.48	17-Jun	1235	7.04	22.6	2,460	0.8	-383.5	5.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-110	Monitoring	BRH	47	68	REST	16-Jun	1110	NP	15.45	0.00	29.74	17-Jun	1150	7.18	21.2	1,701	1.3	-115.8	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-13	Monitoring	BRH		69	EP	16-Jun	1155	NP	9.12	0.00	21.10			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river											
MW-69	Monitoring	BRH		70	EP	16-Jun	1150	NP	7.79	0.00	22.51			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river											
MW-12	Monitoring	BRH		71	EP	16-Jun	1145	NP	6.52	0.00	17.93			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river											
MW-24	Monitoring	BRH		72	EP	16-Jun	1205	NP	8.61	0.00	23.51			Not in sampling program							Yes	Yes	Issue	Yes		SA	No sampling due to location E. of river											
MW-14	Monitoring	BRH		73	EP	16-Jun	1210	NP	7.28	0.00	>11.81			Not in sampling program							Yes	Issue	Yes	Yes		SA	No sampling due to location N. of river											
RW-12	Recovery [d]				Field E of Refinery			Not in gauging program						Not in sampling program												-	-	-	-	-	-	-	-	-	-			-
RW-12R	Recovery [d]	BTB/RJM	48	74	REST	16-Jun	1540	NP	23.55	0.00	NM	17-Jun	1535	6.84	25.1	2,880	0.8	-289.3	6.9	Clear	Yes	Yes	Yes	Yes		SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-113	Monitoring	BTB/BRH	49	75	REST	16-Jun	1544	NP	23.02	0.00	37.80	17-Jun	1510	6.65	21.2	2,310	1.6	-106.4	3.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
KWB-8	Monitoring	BTB		76	REST	16-Jun	1547	20.80	20.89	0.09	35.80			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]			SA [d]
RW-22	Recovery [d]	BTB		77	REST	16-Jun	1549	24.64	30.33	5.69	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-20A	Recovery [d]	BTB		78	REST	16-Jun	1553	17.52	17.63	0.11	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-20B	Recovery [d]	BTB		79	REST	16-Jun	1557	17.53	17.66	0.13	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-13	Recovery [d]				Field E of Refinery			Not in gauging program						Not in sampling program											Y	-	-	-	-	-	-	-	-	-	-			-
RW-13R	Recovery [d]	BTB		80	REST	16-Jun	1601	22.01	24.21	2.20	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-14	Recovery [d]				Field E of Refinery			Not in gauging program						Not in sampling program											Y	-	-	-	-	-	-	-	-	-	-			-
RW-14R	Recovery [d]	BTB		81	REST	16-Jun	1604	20.47	26.73	6.26	NM			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-133	Monitoring	BTB		82	REST	16-Jun	1607	19.72	20.18	0.46	37.64			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-134	Monitoring	BTB/RJM	50	83	REST	16-Jun	1610	NP	19.18	0.00	32.95	17-Jun	1340	6.88	23.7	4,200	1.9	65.7	2.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
RA-4798	Irrigation	BTB	51	84	REST	Not in gauging program						17-Jun	1605	7.21	20.2	2,196	3.9	-58.2	1.1	Clear	NA	NA	NA	Yes		NA	SA	-	-	SA	-	-	-	SA	SA			SA
RA-4196	Irrigation	BTB	52	85	REST	Not in gauging program						17-Jun	1550	7.18	22.6	2,238	3.2	-76.8	1.9	Clear	NA	NA	NA	Yes		NA	SA	-	-	SA	-	-	-	SA	SA			SA
RA-1227	Irrigation	BTB		86	REST									Removed from program by Navajo, 4-13-15												NA	A [h]	-	-	A [h]	-	-	-	A [h]	A [h]			A [h]
RA-3156	Irrigation	BTB	53	87	REST	Not in gauging program						17-Jun	1520	7.00	20.7	1,703	2.3	-58.4	>200	Cloudy, black	NA	NA	NA	Yes		NA	A	-	-	A	-	-	-	A	A			A

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected? [b]	Gauging Frequency	Analytical Suite and Frequency [c]											
						Gauge Date	Gauge Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
RA-313	Irrigation	BTB/RJM	54	88	REST	Not in gauging program						17-Jun	855	7.07	22.9	1,789	2.9	53.7	2.4	Clear	NA	NA	NA	Yes		NA	A	-	-	A	-	-	-	A	A			A
KWB-7	Monitoring	BTB	55	89	REST	16-Jun	1305	NP	19.71	0.00	34.83	16-Jun	1330	6.81	21.5	3,265	2.2	-128.4	2.4	Clear	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	-	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]			SA [d]
MW-135	Monitoring	BTB	56	90	REST	16-Jun	1730	NP	30.71	0.00	65.55	17-Jun	1420	6.81	20.5	5,471	2.2	84.6	9.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-20	Monitoring	BTB/RJM	57	91	TMD	16-Jun	1621	NP	17.08	0.00	26.66	17-Jun	1235	6.96	23.5	3,990	2.0	63.1	3.1	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
NP-3	Monitoring	BTB		92	TMD	16-Jun	1618	NP	19.02	0.00	21.59			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
NP-4	Monitoring	BTB		93	TMD	16-Jun	1615	NP	31.43	0.00	36.98			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
NP-2	Monitoring	BTB		94	TMD	16-Jun	1625	NP	19.23	0.00	21.49			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
NP-1	Monitoring	BTB	58	95	TMD	16-Jun	1630	NP	18.18	0.00	21.88	17-Jun	940	6.67	22.5	4,090	2.0	19.1	1.5	Clear	Yes	Yes	Yes	Yes		SA	SA	-	-	SA	-	-	-	A	A			A
NP-6	Monitoring	BTB		96	TMD	16-Jun	1634	NP	14.57	0.00	20.35										Yes	Yes	Yes	Yes		SA	B	-	-	B	-	-	-	-	-			-
MW-8	Monitoring	BTB/RJM	59	97	TMD	16-Jun	1800	NP	15.87	0.00	23.30	17-Jun	1130	6.94	23.3	4,720	2.1	45.1	3.4	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-21	Monitoring	BTB/RJM	60	98	TMD	16-Jun	1752	NP	15.21	0.00	25.12	17-Jun	1035	7.00	23.6	4,950	1.7	31.8	2.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-9	Monitoring	BTB		99	TMD	16-Jun	1735	NP	16.43	0.00	22.25			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
MW-71	Monitoring	BTB	61	100	TMD	16-Jun	1740	NP	16.63	0.00	21.67	17-Jun	1415	6.94	20.4	6,059	1.5	-40.4	1.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	A	A	A	A			A
MW-68	Monitoring	BTB/RJM	62	101	TMD	16-Jun	1815	NP	21.09	0.00	26.52	17-Jun	940	6.96	23.8	2,780	1.3	-81.9	3.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-27	Monitoring	BTB	63	102	TMD	16-Jun	1708	NP	18.93	0.00	30.28	17-Jun	1325	6.90	22.6	1,950	1.7	18.0	3.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-89	Monitoring	BTB	64	103	TMD	16-Jun	1703	NP	12.62	0.00	20.28	17-Jun	1040	6.89	19.9	3,381	2.3	64.7	4.1	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-16	Monitoring	BTB	65	104	TMD	16-Jun	1711	NP	9.66	0.00	21.24	17-Jun	1135	6.86	18.5	4,833	1.3	84.6	2.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-26	Monitoring	BTB	66	105	TMD	16-Jun	1720	NP	7.76	0.00	27.58	17-Jun	1230	6.96	18.9	6,290	0.7	-22.7	1.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
KWB-11A	Monitoring	BTB	67	106	REST	16-Jun	1400	NP	20.14	0.00	42.27	16-Jun	1425	6.78	22.3	3,974	0.7	-91.3	1.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
KWB-11B	Monitoring	BTB	68	107	REST	16-Jun	1450	NP	20.88	0.00	72.45	16-Jun	1515	6.87	21.7	3,034	1.1	-28.7	2.1	Clear	Yes	Yes	Cracked pad	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
KWB-3AR	Monitoring	BTB		108	REST	Removed from program by Navajo, 4-13-15 (farmer Jack Joy, 575-365-6042)																				SA	SA	SA	-	SA	SA	SA	SA	SA	SA			SA
MW-115	Monitoring	BTB	69	109	REST	16-Jun	855	NP	16.18	0.00	27.50	16-Jun	920	6.81	19.3	4,027	2.8	27.5	1.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-114	Monitoring	BTB	70	110	REST	16-Jun	955	NP	15.98	0.00	38.25	16-Jun	1020	6.68	21.9	3,307	1.7	57.1	1.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-125	Monitoring	BTB	71	111	REST	16-Jun	1030	NP	19.17	0.00	28.31	16-Jun	1055	6.81	20.9	4,180	2.1	42.8	3.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-117	Monitoring	GDS/OJD	72	112	REST	16-Jun	1050	NP	14.65	0.00	27.22	16-Jun	1115	6.48	20.3	3,220	2.6	76.1	21.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-118	Monitoring	GDS/OJD	73	113	REST	16-Jun	955	NP	17.76	0.00	28.29	16-Jun	1020	6.41	18.2	3,410	3.4	75.9	27.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
NP-9	Monitoring	GDS		114	TMD	16-Jun	1732	NP	16.78	0.00	25.65			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program											
MW-119	Monitoring	GDS	74	115	REST	16-Jun	920	NP	16.02	0.00	28.11	16-Jun	945	7.06	19.7	6,470	1.4	105.3	7.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
NP-5	Monitoring	GDS		116	REST	16-Jun	1554	NP	16.32	0.00	25.09										Yes	Yes	Yes	Yes		SA	B	B	-	B	B	-	-	B	B			B
MW-136	Monitoring	GDS	75	117	REST	16-Jun	1601	NP	16.69	0.00	27.90	17-Jun	915	6.95	21.2	6,280	1.0	93.2	17.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected? [b]	Gauging Frequency	Analytical Suite and Frequency [c]											
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
MW-126A	Monitoring	GDS	76	118	REST	16-Jun	1440	NP	20.60	0.00	37.51	16-Jun	1505	6.92	23.5	4,650	1.1	-140.6	6.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-126B	Monitoring	GDS	77	119	REST	16-Jun	1400	NP	20.45	0.00	51.43	16-Jun	1425	6.87	22.8	6,030	1.0	103.4	2.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-127	Monitoring	GDS		120	REST	16-Jun	1349	22.45	24.24	1.79	53.21			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-129	Monitoring	GDS		121	REST	16-Jun	1340	23.17	24.08	0.91	50.78			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	A [d]	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-#18A [e]	Recovery [d]	GDS/SCU	78	122	REST	16-Jun	925	NP	16.94	0.00	17.78	16-Jun	0950	6.95	22.1	3,630	2.0	109.1	9.8	Clear	Yes	Yes	Yes	Yes		SA	A	-	-	A	A	-	-	A	A			A
KWB-1A	Monitoring	GDS	79	123	REST	16-Jun	1541	NP	17.91	0.00	33.50	17-Jun	1000	6.91	21.9	6,760	2.1	112.2	2.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	SA	SA	SA	SA			SA
KWB-1B	Monitoring	GDS		124	REST	16-Jun	1543	NP	19.63	0.00	33.92			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program										
KWB-1C	Monitoring	GDS		125	REST	16-Jun	1545	NP	20.24	0.00	52.71										Yes	Yes	Yes	Yes		SA	B	B	-	B	B	-	-	B	B			B
KWB-10R	Monitoring	GDS		126	REST	16-Jun	1535	18.56	21.40	2.84	29.46			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-131	Monitoring	GDS	80	127	REST	16-Jun	1255	NP	25.85	0.00	53.35	16-Jun	1320	6.74	26.2	2,980	1.9	-144.4	14.3	Clear, brown particles	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
KWB-5	Monitoring	GDS/OJD		128	REST	16-Jun	1655	25.72	27.11	1.39	37.68			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-111	Monitoring	GDS	81	129	REST	16-Jun	1725	NP	27.05	0.00	40.83	17-Jun	1045	6.62	25.5	4,270	1.6	-103.0	>200	Cloudy, tan	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
KWB-6	Monitoring	GDS		130	REST	16-Jun	1241	23.89	26.45	2.56	36.44			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]		2H20	SA [d]
MW-112	Monitoring	GDS		131	REST	16-Jun	1247	23.15	25.09	1.94	37.54			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-132	Monitoring	GDS		132	REST	16-Jun	1236	21.25	23.75	2.50	42.66			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-57	Monitoring	GDS/OJD	82	133	REST	16-Jun	1500	NP	21.45	0.00	34.32	16-Jun	1525	6.73	24.1	4,270	3.4	99.6	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
RW-#11-0 [e]	Recovery [d]	GDS		134	REST	16-Jun	1224	Dry	Dry	Dry	22.20			Not sampled (Dry)							Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
KWB-9	Monitoring	GDS		135	REST			(Historically-obstructed @ 15.11')						Removed from program by Navajo, 4-26-16 (farmer Jack Joy, 575-365-6042)												SA	A	A	-	A	A	A	A	A	A			A
KWB-12A	Monitoring	GDS/OJD	83	136	REST	16-Jun	1240	NP	23.88	0.00	25.03	16-Jun	1305	6.73	25.5	3,050	3.2	66.9	7.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
KWB-12B	Monitoring	GDS/OJD	84	137	REST	16-Jun	1330	NP	23.73	0.00	39.39	16-Jun	1355	6.75	23.9	2,690	4.7	75.7	6.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
KWB-2R	Monitoring	GDS		138	REST	16-Jun	1652	24.57	24.73	0.16	39.39			No sampling (LNAPL 0.03' or greater)							Issue	Issue	Issue	Issue	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-58	Monitoring	GDS		139	REST	16-Jun	1703	23.43	24.05	0.62	33.06			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	-	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]			SA [d]
KWB-13	Monitoring	GDS/OJD	85	140	REST	16-Jun	1730	NP	28.42	0.00	33.10	16-Jun	1755	6.74	25.3	3,020	5.4	-6.5	>200	Cloudy, tan	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	A	A	A	A			A
MW-103	Monitoring	SCU	86	141	REST	16-Jun	1245	NP	17.69	0.00	25.22	16-Jun	1310	7.03	33.6	12,040	1.7	-324.7	4.8	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-104	Monitoring	SCU	87	142	REST	16-Jun	1350	NP	13.85	0.00	21.97	16-Jun	1415	6.95	27.2	1,804	1.4	-327.5	3.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-64	Monitoring	SCU	88	143	REST	16-Jun	1505	20.95	20.96	0.01	34.08	16-Jun	1530	6.87	35.9	2,360	2.4	-329.0	20.0	Clear	Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-65	Monitoring	SCU		144	REST	16-Jun	1550	17.84	18.99	1.15	28.78			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
RW-5	Recovery [d]				S Refinery			Not in gauging program						Not in sampling program											Y	-	-	-	-	-	-	-	-	-	-			-
RW-5R	Recovery [d]	SCU		145	REST	16-Jun	1605	22.60	24.32	1.72	35.30			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-102	Monitoring	SCU	89	146	REST	16-Jun	1625	NP	16.65	0.00	26.45	16-Jun	1650	6.84	27.6	2,260	2.2	-312.4	8.5	Clear	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label	PSH Expected? [b]	Gauging Frequency	Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
								Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																			Analytical Suite and Frequency [c]											
RW-4	Recovery [d]	SCU	90	147	REST	16-Jun	1722	NP	15.05	0.00	36.62	17-Jun	915	6.73	26.7	2,110	2.2	-303.8	20.8	Clear	Yes	Yes	Yes	Yes		SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
RW-6	Recovery [d]	SCU		148	REST	16-Jun	1715	23.60	26.12	2.52	34.90			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-99	Monitoring	SCU	91	149	REST	16-Jun	1731	NP	20.07	0.00	27.80	17-Jun	1250	6.49	28.0	1,031	2.4	-282.2	34.0	Clear	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-66	Monitoring	SCU/GDS	92	150	REST	16-Jun	1738	NP	19.34	0.00	29.80	17-Jun	1245	6.82	25.0	2,730	1.6	-170.3	7.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-28	Monitoring	SCU/GDS	93	151	REST	16-Jun	1745	NP	20.18	0.00	27.82	17-Jun	1340	7.22	24.3	4,480	1.2	-318.0	2.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-59	Monitoring	SCU	94	152	REST	16-Jun	1750	NP	16.62	0.00	32.72	17-Jun	1015	6.80	26.2	2,910	2.5	-244.5	10.4	Clear, light gray tint	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-60	Monitoring	SCU	95	153	REST	16-Jun	1755	NP	17.95	0.00	37.78	17-Jun	1145	6.57	27.7	3,560	2.9	-303.0	5.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-107	Monitoring	SCU/GDS		154	REST	16-Jun	1805	16.43	18.35	1.92	19.05			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A	A	A	A	A	-	-	A	A			A
MW-128	Monitoring	SCU/GDS		155	REST	16-Jun	1812	18.35	20.26	1.91	35.35			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-116	Monitoring	SCU	96	156	REST	16-Jun	1050	NP	16.18	0.00	27.63	16-Jun	1115	6.84	18.7	3,976	2.6	-42.2	3.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-46R	Monitoring	SCU	97	157	TMD	16-Jun	1820	NP	13.33	0.00	19.36	17-Jun	1345	6.71	25.3	3,520	2.4	24.7	15.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
UG-3R	Monitoring	SCU	98	158	REST	15-Jun	1605	NP	22.37	0.00	38.58	15-Jun	1630	6.70	24.2	2,260	5.6	77.0	3.8	Clear	Yes	Yes	Yes	Yes		A	A	A	A	A	A	A	A	A	A			A
UG-4	Monitoring	SCU	99	159	REST	15-Jun	1655	NP	19.58	0.00	39.24	15-Jun	1720	6.75	25.0	3,670	2.7	122.5	9.0	Clear	Yes	Yes	Yes	Yes		A	A	A	A	A	A	A	A	A	A			A
UG-1	Monitoring	SCU	100	160	REST	15-Jun	1745	NP	13.02	0.00	24.08	15-Jun	1810	6.97	26.6	3,190	4.1	130.3	5.0	Clear	Yes	Yes	Yes	Yes		A	A	A	A	A	A	A	A	A	A			A
UG-2	Monitoring	SCU	101	161	REST	15-Jun	1840	NP	16.81	0.00	29.28	15-Jun	1910	7.10	25.4	2,230	3.2	124.6	3.0	Clear	Yes	Yes	Yes	Yes		A	A	A	A	A	A	A	A	A	A			A
MW-101	Monitoring	TAB/RJM	102	162	REST	16-Jun	1440	NP	14.25	0.00	24.10	16-Jun	1505	6.87	26.5	1,641	2.4	-209.9	5.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-105	Monitoring	TAB	103	163	REST	16-Jun	1650	NP	9.69	0.00	17.20	17-Jun	925	7.15	24.1	1,736	1.1	-354.7	9.8	Clear	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
RW-2	Recovery [d]	TAB		164	REST	16-Jun	1530	15.02	15.53	0.51	36.13			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	A [d]	A [d]	A [d]	-	-	A [d]	A [d]	1H20		A [d]
MW-61	Monitoring	TAB	104	165	REST	16-Jun	1520	NP	12.90	0.00	29.30	17-Jun	1025	6.64	26.4	2,980	1.1	-367.1	2.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-62	Monitoring	TAB	105	166	REST	16-Jun	1500	NP	15.50	0.00	29.50	17-Jun	1220	6.49	26.5	2,800	1.4	-351.3	4.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-93	Monitoring	TAB	106	167	REST	16-Jun	1550	NP	9.90	0.00	20.23	17-Jun	1125	6.47	23.9	2,970	1.0	-353.0	3.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A	1H20		A
MW-43	Monitoring	TAB	107	168	REST	16-Jun	1400	NP	13.99	0.00	19.67	17-Jun	1425	6.72	29.1	3,190	1.1	-346.3	6.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-137	Monitoring	TAB		169	REST	16-Jun	1430	11.38	12.47	1.09	29.60			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	1H20		SA
MW-138	Monitoring	TAB		170	REST	16-Jun	1420	12.89	15.49	2.60	24.81			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	1H20		SA [d]
MW-23	Monitoring	TAB	108	171	REST	16-Jun	1450	NP	16.24	0.00	23.10	17-Jun	1325	6.94	28.1	2,760	1.1	-310.6	3.3	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
TEL-4	Monitoring	TAB	109	172	TEL	16-Jun	1230	NP	12.67	0.00	27.27	16-Jun	1255	6.77	24.5	3,830	0.7	-308.9	5.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
TEL-3	Monitoring	TAB		173	TEL	16-Jun	1200	14.10	14.16	0.06	27.19			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
TEL-2	Monitoring	TAB	110	174	TEL	16-Jun	1100	NP	15.20	0.00	27.20	16-Jun	1125	6.92	25.8	3,290	0.7	-354.1	3.4	Clear, light sheen	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
TEL-1	Monitoring	TAB	111	175	TEL	16-Jun	1000	NP	14.52	0.00	27.00	16-Jun	1025	7.19	24.0	2,550	0.8	-279.1	4.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-39	Monitoring	TAB/RJM	112	176	REST	16-Jun	1110	NP	15.22	0.00	25.44	16-Jun	1135	7.26	27.3	2,830	1.5	-297.3	3.2	Clear	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected? [b]	Gauging Frequency	Analytical Suite and Frequency [c]											
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
MW-98	Monitoring	TAB	113	177	REST	16-Jun	1330	NP	12.88	0.00	25.60	16-Jun	1355	6.67	25.5	3,210	0.8	-376.6	6.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
RW-10	Recovery [d]	TAB	114	178	REST	16-Jun	900	NP	15.18	0.00	22.49	16-Jun	925	7.10	22.3	2,520	0.9	-326.5	2.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-40	Monitoring	TAB/SCD	115	179	REST	16-Jun	900	NP	13.86	0.00	24.75	16-Jun	925	6.70	21.7	2,670	1.5	-365.9	9.1	Clear, black particles	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-41	Monitoring	TAB/RJM	116	180	REST	16-Jun	1015	NP	14.02	0.00	21.56	16-Jun	1040	6.56	25.1	5,300	2.2	-217.4	6.7	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
RW-9	Recovery [d]	TAB/RJM	117	181	REST	16-Jun	1210	NP	15.19	0.00	21.83	16-Jun	1235	6.83	26.0	3,610	1.3	-346.8	1.5	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-42	Monitoring	TAB	118	182	REST	16-Jun	1610	NP	15.42	0.00	24.32	17-Jun	1420	6.76	25.2	6,110	2.4	-341.8	5.2	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-29	Monitoring	TAB/SCD	119	183	REST	16-Jun	955	NP	20.76	0.00	24.22	16-Jun	1020	6.88	23.1	4,270	1.7	-325.8	8.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
RW-#16B [e]	Recovery [d]	TAB/RJM	120	184	REST	16-Jun	930	NP	17.10	0.00	17.70	16-Jun	940	6.79	25.5	4,080	2.0	29.2	8.5	Clear	Yes	Yes	Cracked pad	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-30	Monitoring	TAB		185	REST	16-Jun	1600	NP	15.90	0.00	23.50			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program										
MW-56	Monitoring	TAB/SCD	121	186	NCL	16-Jun	1100	NP	16.67	0.00	26.50	16-Jun	1125	6.70	22.3	3,850	1.3	-156.0	1.9	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	-	-	A	A			A
MW-49	Monitoring	TAB/RJM	122	187	TEL	16-Jun	1315	NP	12.95	0.00	33.07	16-Jun	1340	6.59	27.2	2,740	1.5	-373.4	6.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
MW-106	Monitoring	TAB/RJM	123	188	REST	16-Jun	1600	NP	10.32	0.00	22.80	16-Jun	1625	6.63	26.6	2,830	1.6	-377.1	6.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-45	Monitoring	TAB	124	189	NCL	16-Jun	1630	NP	11.27	0.00	15.05	17-Jun	1520	6.93	23.2	4,530	1.4	-227.8	3.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	SA	SA	SA	SA			SA
MW-139	Monitoring	CJH	125	190	REST	16-Jun	1120	NP	13.86	0.00	29.60	16-Jun	1145	6.66	23.4	4,190	1.5	-282.9	8.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-50	Monitoring	CJH	126	191	REST	16-Jun	1205	NP	14.85	0.00	28.22	16-Jun	1235	6.84	25.1	7,960	1.1	-257.1	6.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
MW-97	Monitoring	CJH		192	REST	16-Jun	1250	10.81	14.06	3.25	21.20			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]	1H20		SA [d]
MW-92	Monitoring	CJH		193	REST	16-Jun	1305	13.11	13.67	0.56	22.60			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
RW-1	Recovery [d]	CJH		194	REST	16-Jun	1320	14.37	15.08	0.71	35.39			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	A [d]	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-91	Monitoring	CJH	127	195	REST	16-Jun	1335	NP	12.78	0.00	25.35	16-Jun	1400	6.48	24.7	3,870	1.4	-387.9	8.8	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
MW-90	Monitoring	CJH	128	196	REST	16-Jun	1420	NP	12.66	0.00	22.80	16-Jun	1445	6.71	23.1	3,730	1.0	-376.3	7.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-96	Monitoring	CJH	129	197	REST	16-Jun	1505	NP	12.85	0.00	25.57	16-Jun	1530	6.70	24.7	2,210	1.1	-369.0	5.6	Clear	Yes	Closure	Issue	Yes		SA	SA	SA	SA	SA	SA	-	-	SA	SA			SA
MW-94	Monitoring	CJH		198	REST	16-Jun	1550	14.63	18.50	3.87	23.45			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
RW-8	Recovery [d]	CJH		199	REST	16-Jun	1600	13.62	15.72	2.10	37.22			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	A [d]	A [d]	-	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
MW-67	Monitoring	CJH		200	REST	16-Jun	1610	12.18	12.23	0.05	27.30			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]	SA [d]			SA [d]
MW-95	Monitoring	CJH	130	201	REST	16-Jun	1620	NP	14.86	0.00	25.37	16-Jun	1645	6.73	24.6	2,860	0.6	-317.1	3.1	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A	1H20		A
RW-7	Recovery [d]	CJH	131	202	REST	16-Jun	1700	NP	13.84	0.00	37.00	17-Jun	1220	6.64	25.4	2,410	1.2	-368.5	8.3	Clear, black tint, black particles, sheen	Yes	Yes	Yes	Yes		SA	A [d]	A [d]	A [d]	A [d]	A [d]	-	-	A [d]	A [d]			A [d]
NCL-34A	Monitoring	CJH	132	203	NCL	16-Jun	1706	NP	13.40	0.00	19.26	17-Jun	1310	6.54	24.6	2,400	1.4	-370.1	5.0	Clear	Yes	Yes	Issue	Yes		SA	SA [d]	SA [d]	-	SA [d]	SA [d]	-	-	SA [d]	SA [d]			SA [d]
NCL-33	Monitoring	CJH	133	204	NCL	16-Jun	1713	NP	12.10	0.00	19.60	17-Jun	1355	6.45	24.7	4,780	1.1	-241.7	9.2	Clear, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
NCL-44	Monitoring	CJH	134	205	NCL	16-Jun	1718	NP	11.85	0.00	21.34	17-Jun	1135	6.56	24.3	3,170	1.9	-280.4	6.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA

Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 1H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)															PSH Expected? [b]	Gauging Frequency	Analytical Suite and Frequency [c]											
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	DRO	GRO	VOC	Metals (As, Ba, Cr, Fe, Pb, Mn, Se)	Metals (Hg, Ni, V, B, Cd, Co, U)	Cyanide	Cations/Anions	Nitrates / Nitrites as Nitrogen	SVOC (8270)	EDB (8011)	TDS
NCL-32	Monitoring	CJH	135	206	NCL	16-Jun	1725	NP	12.26	0.00	20.04	17-Jun	1050	6.79	23.0	3,200	1.1	-127.7	8.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
MW-108	Monitoring	CJH	136	207	NCL	16-Jun	1730	NP	15.30	0.00	27.74	17-Jun	925	6.78	24.8	1,761	1.3	-378.9	9.1	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
NCL-31	Monitoring	CJH	137	208	NCL	16-Jun	1735	NP	12.17	0.00	20.16	17-Jun	1005	6.82	26.1	2,890	1.3	-278.6	6.3	Clear	Issue	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
MW-19	Monitoring	CJH		209	NCL	16-Jun	1740	NP	12.45	0.00	22.08			Not in sampling program							Yes	Yes	Issue	Yes		SA	Not in sampling program											
MW-55	Monitoring	CJH/BRH	138	210	NCL	16-Jun	1015	NP	15.02	0.00	26.85	16-Jun	1040	6.58	18.8	3,280	1.9	72.3	7.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	SA	SA	SA	SA	SA	SA	SA			SA
RW-#17A [e]	Recovery [d]	CJH/GDS	139	211	REST	16-Jun	1755	NP	14.54	0.00	16.01	17-Jun	1510	8.02	22.3	8,270	2.9	-77.5	3.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	A	A	A	-	-	A	A			A
MW-18	Monitoring	CJH	140	212	NCL	16-Jun	1749	NP	14.14	0.00	22.20	17-Jun	1440	6.74	24.3	3,280	1.3	-242.5	3.6	Clear	Yes	Yes	Yes	Yes		SA	A	A	-	A	A	A	A	A	A			A
MW-54A	Monitoring	CJH	141	213	NCL	16-Jun	930	NP	14.77	0.00	31.30	16-Jun	955	6.53	22.7	2,580	1.7	65.0	5.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
MW-54B	Monitoring	CJH		214	NCL	16-Jun	1010	NP	14.83	0.00	46.80										Yes	Yes	Yes	Yes		SA	B	B	B	B	B	-	-	B	B			B
NCL-49	Monitoring	CJH	142	215	NCL	16-Jun	1020	NP	18.18	0.00	32.18	16-Jun	1045	6.87	23.3	3,630	1.9	133.7	4.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	-	SA	SA	-	-	SA	SA			SA
MW-53R	Monitoring	CJH		216	NCL	16-Jun	1110	MW-53 not located			23.6??			MW-53 was lost in previous construction; MW-53R has not yet replaced MW-53, 1H20												SA	A	A	-	A	A	-	-	A	A			A
KWB-P3	Monitoring				Field E of Refinery			Not in gauging program						Not in sampling program												Not included in monitoring program due to distance from impacts											

Notes:

Abbreviations:

A = Annual (Mar/Apr event)
B = Biennial (starts Mar/Apr 2011)
BR = Bolton Road
DRO = Diesel Range Organics
E = East
EP = Evaporation Ponds
ft bgs = ft below ground surface
ft btoc = ft below top of casing
ft MSL = ft Mean Sea Level
GRO = Gasoline Range Organics
HR = Haldeman Road
in = inches
N = North
NA = Not accessible
NAPI = North API Separator
NCL = North Colony Landfarm
NE = Northeast
NW = Northwest
OCD = Oil Conservation District
PSH = Phase Separated Hydrocarbon
ROW = right of way
RR = Richey Road
S = South
SA = Semi-annual (Mar/Apr and Sep/Oct events)
SE = Southeast
SW = Southwest
TMD = Three Mile Ditch
TEL = Tetra Ethyl Lead Impoundment
UG = Upgradient
US285 = U.S. Highway 285
US82 = U.S. Highway 82
VOC = Volatile Organic Compounds
W = West
Y = Yes

= Sampled as part of RO Field Program, 4Q19

Footnotes:

[a] Well const. info. provided where available. TOC & ground surface elevs relative to benchmark G-416. Total depth based on 4/2010 measurements.

[b] PSH was present during March 2012 gw monitoring event or a recovery pump is in place. Note that recovery wells are gauged at least monthly.

[c] Analytical Suite to include the following:

1. Purge parameters to be measured and recorded in the field will include pH, temp, spec. cond., diss. oxy., and oxidation-reduction potential.
2. DRO by Method 8015Mod.
3. GRO by Method 8015Mod.
4. VOCs by Method 8260, to include methyl tert butyl ether (MTBE).
5. Total metals by Method 6010/6020 and/or 7470. Specific metals shown in heading, abbreviations from periodic chart (incl B, Cd, Co, U, per 3-7-16 State request).
6. Dissolved metals - same list as total metals but only analyzed during April event (field filtered by HMI)
7. Cyanide by Method SM4500.
8. Cations/anions to include Calcium, Potassium, and Sodium by Method 6010 or 6020 and Sulfate, Chloride and Fluoride by Method 300.
9. Nitrates/Nitrites as Nitrogen by Method 300.
10. Total Dissolved Solids by Method 2540C.

"-" indicates parameter not required.

Note - samples will not be collected from any well where PSH is measured to be 0.03 feet thick or greater.

[d] Samples to be collected at frequency indicated only if <0.03 feet of PSH is present.

[e] Recovery trenches 11, 15, 16, 17 and 18 have multiple vertical "wells". Gauging & sampling points are: RW #11-0, RW #15C, RW #16B, RW #17A and RW #18A.

= Well with recently gauged LNAPL (light nonaqueous phase liquid)

MW-53R (installed March 2020)replaced the formerly-destroyed MW-53, due to city road construction

Released to Imaging: 11/21/2023 10:16:55 AM

HMI Groundwater

Hydrologic Monitoring
1654 W. Sam Houston Pkwy. N.
Houston, Texas 77043

Phone 713.464.5206
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M E M O R A N D U M

Groundwater Monitoring Standard Operating Procedures
Navajo Refining LLC – Artesia, New Mexico

HMI conducts low-flow groundwater sampling in accordance with the site Sampling and Analysis Plan and EPA guidance (including Puls and Barcelona, 1996 EPA Guidance on Low-Flow Groundwater Sampling; REV No. 4, September 19, 2017, and Yeskis & Zavala, 2002, EPA/542:S-02/00, Groundwater Sampling Guidelines for Superfund and RCRA Project Managers).

Groundwater Sampling Methodology

HMI conducts low-flow groundwater sampling using a peristaltic pump and dedicated polyethylene tubing at wells with requisite depths-to-water. At a limited number of wells with depths-to-water greater than peristaltic range, low-flow groundwater sampling is conducted using dedicated or non-dedicated bladder pumps. In 2016, at no cost to TRC, HMI installed HMI-owned bladder pumps in a limited number of wells (approximately four). At such time that HMI no longer conducts routine groundwater monitoring at the site, it respectfully requests the opportunity to recover these dedicated bladder pumps. Sample intakes are set at midscreen, when possible (generally at least two feet from the base of the well). Sample intake depths are permanently marked, ensuring future sampling events consistently monitor the targeted water-bearing interval. During sampling with a peristaltic pump, the sample tube is attached to the pump using a one-foot section of dedicated, flexible silicone tubing (item #5703, Geotech Environmental Equipment, Inc.). A two-foot segment of polyethylene tubing connects the silicone tubing in the pump to the flow-through cell, using a disposable segment of silicone tubing. Purging commences through a sealed flow-through cell at EPA-recommended purge rates (generally 0.1 to 0.2 liters/minute), while well drawdown is monitored. Groundwater field parameter readings are measured at 0.5-liter intervals (generally an equivalent of one cell-volume "turnover"). Field parameters of pH, specific conductivity, temperature, dissolved oxygen, and oxidation-reduction potential are monitored inside the cell. Turbidity is monitored outside the cell. Groundwater field instrumentation is calibrated and recorded daily in accordance with manufacturer specifications.

Purging continues until a requisite volume of groundwater is purged (generally a minimum of 3,000 ml or six flow-through cell volumes), and field parameters have stabilized in accordance with EPA guidance:

Water Quality Parameters (Stabilization Parameters in Accordance with EPA (2002), Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, Yeskis & Zavala, EPA/542:S-02/001)

- pH +/- 0.1 units;
- Temperature -
- Conductivity +/- 3%
- Dissolved Oxygen +/- 0.3 mg/L
- ORP +/- 10%
- Turbidity 10%

Immediately prior to sampling, the input tubing to the flow-through cell is disconnected from the disposable silicone receiving tubing on the input barb on the flow-through cell, and groundwater samples are collected directly into lab-supplied containers. Groundwater samples are placed in iced coolers, and remain in HMI's custody until shipped to ESC Lab Sciences via FedEx-overnight. Peristaltic tubes and/or dedicated bladder pumps may be dedicated in respective wells. Alternatively, dedicated tubing may be retrieved, bagged, labeled, and stored in tubs maintained at HMI. Wells with very limited water column thicknesses may be sampled with disposable bailers. Active recovery well and irrigation wells are sampled using sample ports. The purging and sampling process is documented on groundwater sampling field forms.

Cross-Contamination Prevention Program

Dedicated peristaltic tubing and dedicated bladder pumps are used as possible, to minimize any potential cross-contamination issues during the groundwater monitoring process. Remaining non-dedicated equipment (e.g., electronic gauging probes or non-dedicated bladder pumps, etc.) is properly decontaminated prior to use and between wells. The decontamination procedure may include a combination of chemical and mechanical decontamination. For example, scrubbing with ethyl alcohol (isopropanol) as warranted, followed by scrubbing using an Alconox-water solution, and distilled water rinse. The decontamination procedure for non-dedicated bladder pumps consists of cycling an Alconox-water solution through the pump bladder. Distilled water is cycled through the pump bladder, followed by decontaminating the exterior body of the pump, using the methods outlined above.

HMI Deliverables

HMI provides field documentation of groundwater monitoring activities in a deliverables package that includes a brief narrative, summary table (with gauging data, field parameters, well inspection data, and required analytical scope), groundwater sampling forms, field instrument calibration log, and chain-of-custody forms (by Refinery "Area"), and a groundwater sampling SOP memo.

HMI Groundwater

HYDROLOGIC MONITORING
JOB HAZARD ANALYSIS

Activity: Groundwater Sampling	**Date:** 6/16/20 6/17/20
	Project: Navajo-Artesia GW Samp.
Description of the work: Collect fluid level information and water samples from monitoring wells. NOTE: All site workers have STOP WORK Authorization at any time site conditions change and/or become unsafe	**Site Supervisor:** Scott Ude Scott Ude Scott Ude **Attendees Signatures:** Scott Ude Scott Ude Scott Ude

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
• General Hazards	• Accidents due to lack of training	• All workers will complete Safety Council Basic Plus Training and all site-specific training. • All workers will complete OSHA 40-hr HAZWOPER training with yearly updates. • Workers will be trained prior to performing new activities. • Tailgate safety meetings will be held daily.
	• Head Injury	• ANSI-approved hard hats will be worn at all times, in the manner they were designed (brim forward, no modifications no ball caps, etc.) Bump hats and Cowboy hard hats are not permitted.
	• Hearing Damage	• Workers will wear hearing protection whenever voices must be raised above normal conversational speech or when noise levels exceed 85 decibels due to loud noise sources such as working near heavy equipment.
	• Hand Injury	• Leather gloves will be worn when handling

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
		sharp, rough, or slippery surfaces. • Appropriate gloves for chemicals will be worn per project HASP.
	• Injuries resulting from manual lifting	• Workers will be instructed in safe lifting techniques (keep back straight, bend at knees, keep load close to body, lift smoothly, and do not twist at the waist. • Split heavy loads into smaller loads when possible. • Stretch before doing task • Make sure the path of travel is clear prior to the lift.
	• Foot Injury	• Workers will wear sturdy leather safety-toed boots that reach the ankle at all times. • For wet conditions or for chemical hazards proper water resistant overboots or chemical resistant safety-toed boots must be worn.
	• Eye Injury	• Workers will wear protective eyewear with sideshields that meet ANSI Z-87 at all times. If the worker wears prescription eyeglasses they must meet the same criteria or wear ANSI Z-87 safety over glasses. • Workers must have immediate access to Chemical monogoggles. Retaining rings are not permitted.
	• Slips, trips, and falls	• Walking/working surfaces will be kept free of clutter, debris, and congestion to the greatest extent possible. • Personnel should be aware of wet/muddy surfaces and use caution. Use caution when traversing uneven ground.
	• Injuries associated with insects, snakes, spiders, alligators, and poisonous plants	• Workers will wear snake chaps, leggings or sturdy rubber knee high boots when walking in uncleared, grassy areas. • Workers will avoid walking in areas where snakes or alligators may hide. Always look ahead where you are walking for signs of either. Use caution when moving or lifting objects that could be used for cover. Never reach under or behind objects, or into other areas where snakes or alligators may hide. • Workers will use insect repellant for all types of biting / stinging insects. Use care when opening wells to avoid bites and / or stings. • Workers will always use the buddy system and have a means of contacting emergency

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
		aid if needed by cell phone or Radio. • Workers will immediately wash any areas that were exposed to poisonous plants.
	• Chemical Exposure	• MSDS will be kept onsite in a location that all workers can access. • All workers must know where the emergency rally point is located when an evacuation alarm sounds in the plant. • Workers will sign in and out when they arrive and leave the work area.
	• Heat Stress	• All workers will take routine breaks in a cool, shaded area. • Workers will drink plenty of water throughout the day. • Workers will decrease intake of coffee and caffeinated soft drinks during working hours.
	• Vehicle accidents	• All vehicles must be inspected for safe operation onsite. • Vehicle operators must have a valid driver's license and will be instructed in safe operations while on the site. • Seat belts will be worn by all occupants. • When backing, use the buddy system or get out and look at position of objects. • All vehicles must contain a fire extinguisher, first aid kit, evacuation map, and route to hospital (map/directions). • Drivers will observe and not exceed posted plant speed limits. • Cell phone use is prohibited in a moving vehicle (drivers only) - hands free device not permitted. • Use caution at railroad crossings. • Watch for pedestrians walking into driving lanes.
	• Injury due to inclement weather	• Outdoor work will cease during extreme weather conditions, such as electrical storms, high wind, rain, and dangerous temperatures. • All equipment will be shut down when lightning is visible. • Workers will seek shelter indoors when possible or stay in vehicles.
• Groundwater Sampling	• Collect Measurements and Samples	• All site workers will wear proper PPE to prevent exposure to groundwater.

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
	• Using peristaltic pumps	• All workers using peristaltic pumps should inspect the power cord for damage before and after each use.
	• Fire extinguishers	• Fire extinguishers should be on hand and inspected.
	• Lifting	• All workers should use proper lifting techniques when lifting objects. Mechanical assistance may be used to lift objects weighing over 50 pounds.
	• Drive All Terrain Vehicles	• All workers that will drive All-Terrain Vehicles (ATVs) will follow site specific policies regarding use and operation of ATVs. • In addition, conditions of ATV use will be addressed on Safe Work Permit(s). • All workers will be trained in operating the ATV. • The maximum speed limit is 5 miles per hour. • Read owners manual prior to operating • ATVs are not made for multiple riders. Never carry anyone else on the ATV. • Stay seated at all times while ATV is in motion. • Do not operate the ATV on streets, highways or paved roads. • Driver must have a valid driver's license. • Driver exercise caution when loading and unloading ATV.

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6/16/20 Scott Hall 6/17/20 Scott Hall 6/18/20

Hydrologic Monitoring, LLC (HMI) Job Hazard Analysis (JHA) Job Safety Analysis (JSA) and Personal Protective Equipment (PPE) Assessment	**Task Title:** Mitigating *Exposure to Coronavirus "COVID-19"*		**Date:** HMI Groundwater **New: 4-7-20; Revised:**
	Title: HMI employees, contractors, and visitors	**Supervisor (Print and Sign):**	**Prepared by:** HMI Contractor Safety and Crisis Support
Client Name / Site Location: HF / Artesia & Lovington	**Locations:** HMI-wide	**Business Unit:** All	**Reviewed By:** HMI Committee **Approved By:** HMI Committee

Required or Recommended Personal Protective Equipment:

☐ Hard Hat ☒ Safety Glasses ☐ HiVis Vest ☐ Safety Toe Boots ☒ Gloves: Disposable, Work, etc based on task ☐ Hearing Protection ☒ Other: See below

For certain tasks (see JHA below) the following are required:

- Potable water and soap (preferable) or hand sanitizer with 60%> alcohol
- Paper towels
- Disinfectant wipes
- Tissues
- Nitrile gloves
- Safety glasses or goggles
- Disinfectant spray list of cleaning products to kill Coronavirus

Diluted household bleach solutions can be used in ploce of disinfectant wipes or sprays if appropriate for the surface. Be sure to test the surface for color-fastness prior to use. Follow manufacturer's instructions for application and proper ventilation. Check that the product is not past its expiration date. Never mix household bleach with ammonia or other cleanser. Unexpired household bleach is effective against caranaviruses when properly diluted.

- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3rd cup) bleach per gallon of water or 4 teaspoons bleach per quart of water

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This JHA applies to the 2019 Novel Coronavirus (SARS-CoV-2) or the disease known as "COVID-19". The Centers for Disease Control and Prevention (CDC), World Health Organization, (WHO), Occupational Safety and Health Administration (OSHA), and other public health agencies are considering the outbreak of COVID-19 to be a pandemic. It is important that employees, contractors, and visitors take standard precautions recommended by CDC and OSHA. For OSHA's guidance related to Hazard Recognition regarding COVID-19 visit https://www.osha.gov/SLTC/covid-19/hazardrecognition.html.

Risk Assessment: Incomplete information about incubation, infectious period, and transmissibility, as well as evolving circumstances make a definitive risk assessment challenging. In light of this, awareness and operationally informed precautions are warranted. Risk increases with increased exposure to persons potentially infected with COVID-19, warranting enhanced precautions described below. HMI will continue to monitor the situation closely in coordination with appropriate stakeholders and will adjust guidance as appropriate. HMI employees, contractors, and visitors should continue to maintain situational awareness for this outbreak.

Personnel should practice good hygiene, wash hands frequently, and cover their cough or sneeze. Stay away from work if you are ill and contact your health provider for guidance. Avoid unnecessary congregate settings where COVID-19 exposure is more probable. Keep your hands below your chin, and avoid touching mouth, eyes, nose and mucous membranes where contaminated hands can spread the disease to your respiratory system. These basic preventative measures reduce the exposure potential for personnel and slow the spread of communicable diseases.

While most COVID-19 lab confirmed cases do display symptoms, some persons may display mild or no symptoms. Symptoms may appear at different stages of the disease.

Operations/Contractor Work	Risk Category	Hazards	Protective Measures / PPE Guidance
1. Fitness for Duty (working from home or before reporting to work)	**Low**	**1. Being unfit for duty – impacted by illness (e.g coronavirus)**	**1a**. Check that you are fit for duty. If you feel unwell or show signs or symptoms of the coronavirus, do not come to work. Current CDC guidance is that if you have a temperature above 100.4 F [37.8 C], or in close contact with someone suspected of having the coronavirus, then you must stay home. If you have an elevated temperature, do not come to work and contact your healthcare provider. Also, contact your supervisor. By coming to work and onto the project site, employees are self-certifying that they do not have a temperature or show other signs of being unwell and are able to work within the guidelines of the CDC.
2. General Field Work	**Low**	**2a. Working around others** **Signs and Symptoms of** COVID-19 include; • Fever • Cough	**2a**. If experiencing signs or symptoms of COVID-19 infection, such as fever, dry cough, or other flu-like symptoms, do not report to work. If symptoms begin while at work, stop what you are doing immediately and contact your supervisor and an HMI Representative. HMI employees and/or their immediate supervisor are also to contact Human Resources immediately. Personnel and contractors shall maintain at least 6-foot distance from each other. Practice social distancing at tailgate meetings and in break rooms and job trailers.

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		• Extreme Fatigue • Difficulty breathing • Other Flu Like Symptoms	Limit the number of people in job trailers and other confined areas so that this distance can be maintained. If possible, hold meetings outside. If indoors, open window(s) for circulation. Wipe down window handles prior to opening and use gloves to open. Even when practicing social distancing, limit the amount of people in groups to less than 10 people, or fewer if directed by a particular jurisdictional order.
		2b. Encountering frequent touch points and shared equipment	**2b**. Wipe down and disinfect equipment before use with soap and water or alcohol wipes. Wear disposable gloves if possible or regularly wash hands when handling tools or equipment. Replace gloves regularly or wash hands, especially before eating or drinking. Clean hands often with soap and water for at least 20 seconds: • after using the restroom, • after you have been in a public place, • before and after eating, • after blowing your nose, coughing, or sneezing, • after smoking or vaping in designated areas. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands, including around and under fingernails, and rub your hands together until they feel dry. Wear safety glasses and gloves (nitrile or other work gloves) to avoid contact and to reduce touching face, eyes, nose, and mouth. Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash. Immediately wash or sanitize your hands.
		2c. Eating lunch and bathroom breaks	**2c**. Be sure to wash hands with soap and water whenever a bathroom is nearby. At minimum, do so during bathroom and lunch breaks. Use a paper towel to door handle when exiting bathroom. If using outside toilet facilities (i.e. Porta Johns), wash hands with soap and water or hand sanitizer both before and after opening or closing the door. If wearing nitrile gloves, change gloves prior to using the toilet and remove and dispose of them in a trash receptacle when finished. Use hand sanitizer after you dispose of the gloves. Where possible, personnel are encouraged to pack meals and snacks as needed for the duration of the work day and avoid visiting stores and restaurants. If necessary, modify your schedule to avoid restaurants and public restrooms during peak (i.e., crowded), periods to minimize contact with the public. Use drive-through service for

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			food pick-up if available. When eating lunch as a group, try to do so outside or in a space with windows open. Wipe down windows prior to opening. Maintain a distance of at least 6 feet and do not share dishes (e.g., bag of chips, communal salad bowl, etc.). Refrain from sharing a field office coffee pot.
3. General Office Work	**Low**	**3a. Working around others**	**3a**. Work from home when possible. Clean hands often with soap and water for at least 20 seconds: • after using the restroom, • after you have been in a public place, • before and after eating, or • after blowing your nose, coughing, or sneezing. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands, including around and under fingernails, and rub your hands together until your hands feel dry. Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash. Immediately wash or sanitize your hands. Sit at least six feet apart from others. Change work stations to accommodate this. Even if you are practicing social distancing, you must still limit groups of people to 10 or fewer. Do not hold in-person meetings. After tailgate meetings and/or JHA reviews, supervisors should seek verbal agreement from each attendee and note each acknowledgement rather than passing around for signature. Make hand-sanitizers, sanitizing wipes, and other hygienic supplies readily available. Do not eat or hang out in common areas.
		3b. Encountering frequent "touch points" and handling shared equipment	**3b**. Wipe down keyboards, mouse, phone, headset/headphones, and other "touch points". Limit contact of shared items. Wipe down surfaces before coming into contact with them. Wash hands after handling or wear disposable gloves. In reception areas, use your own pen to sign in and out of offices. Do not eat candy out of candy dishes.

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			Assign someone to clean and disinfect frequently touched surfaces daily. Follow the manufacturer's instructions for cleaning and disinfection products (e.g., concentration, application method, and contact time).
4. Essential Work (deemed by Operations, Project Manager, EHS) where a continued 6 foot distance between persons in not possible.	**Low-Medium**	**4a.**Examples such as Operation and Maintenance tasks, groundwater and potable water monitoring, ballast water sampling, post-closure care services, etc.	4a. Mitigation tactics such as cloth face covers, face shields, gloves, facing away from another person, etc. must be implemented.

Additional Information

Prior to starting work, check that required supplies (i.e., disinfectant spray and wipes, soap, hand sanitizer, nitrile gloves) are available. Request re-supply if stock runs low.

Use alcohol-based hand sanitizer that contains at least 60% alcohol. Wash hands with soap and water whenever available. Remember that soap, including bar soap, is generally available and is considered superior to hand sanitizer or disinfectant wipes and sprays. If disinfectants are unavailable, prepare diluted bleach solution as described on page 1 and use in their place.

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Common touch points and surfaces include but are not limited to:

*Arms on chairs *Table tops *Doorknobs and handles *Countertops *Elevator Buttons *Coffee Pots

*Refrigerator, microwave, dishwasher, toaster handles *Water Dispensers *Cabinet and file drawer knobs and handles

*Phone receivers, keypads *Copier, printer, and fax control buttons *Sink faucets *Light switches

*Shared office supplies such as staplers, paper cutters, scissors, packaging tape dispensers, writing utensils *Vehicle handles, tailgates, etc.

If personnel are showing possible symptoms of or have been in recent direct contact with others showing symptoms of coronavirus, stop work and notify the site supervisor and HR.

Visit the CDC webpage on cleaning and disinfecting procedures: CDC Guidance for Community and Residential Cleaning-Disinfection for Coronavirus

A list of approved disinfectants for use against COVID-19, is available here: US EPA List of Disinfectants Effective Against Coronaviruses.

Special Considerations:

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-6A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MJS

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1030	NP	11.64	0.00	19.04	14.1	Yes	Yes	Yes	Yes		Weather: Sl. Cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1035	11.65	0.5	7.72	23.0	4400	1.9	-137.3	20.1	Clear / colorless / odor	*Low-flow groundwater sample:*
	1037	11.65	1.0	7.67	22.5	4410	1.5	-137.5	17.6		(A) peristaltic pump w/ ded tubing
	1040	11.65	1.5	7.64	22.3	4390	1.4	-137.9	13.6		B) ded bladder pump
	1042	11.65	2.0	7.61	22.1	4400	1.4	-138.3	10.8		C) non-ded bladder pump; or
	1045	11.65	2.5	7.60	22.0	4380	1.5	-138.8	9.7		*Standard groundwater sample:*
	1047	11.65	3.0	7.59	21.9	4380	1.5	-139.1	7.3		D) bailer due to limited column; or
	1050	11.65	3.5	7.58	21.8	4380	1.6	-139.5	6.7		E) recovery well cycling sample
↓	1052	11.65	4.0	7.57	21.7	4380	1.6	-139.7	6.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1055	MW-6A	11.65	7.57	21.7	4380	1.6	-139.7	6.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-63
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MBR (2)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1115	NP	11.47	0.00	52.28	47.3	Y	Y	Y	Y		Weather: P.Cloudy, 86's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-63								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-85
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDM (3)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1810	8.82	8.95	0.13	20.34	NS	Yes	Yes	Yes	Yes		Weather: Clear 86°

Well Purging Record

*Removed oil-sorbent sock + allowed well to equilibrate prior to sampling

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not	Sampled	due to presence of				C) non-ded bladder pump; or
			2.5			LNAPL					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-85								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-86
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(4)

Initials: MMR

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1800	NP	8.30	0.00	19.21	17.21	Yes	Yes	Yes	Yes		Weather: Clear 90's
6-17-20	1350	NP	8.26	0.00								

Well Purging Record

*Removed 0.1- sediment sock and allowed well to equilibrate prior to sampling

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1355	8.39	0.5	7.03	27.3	6870	2.7	-352.6	>200	Cloudy / black tint / strong	Low-flow groundwater sample:
	1357	8.46	1.0	7.01	25.3	6800	1.7	-355.1	93.6	odor / black particles	(A) peristaltic pump w/ ded tubing
	1400	8.53	1.5	6.99	24.8	6990	1.2	-357.4	83.6	Clear / black tint / strong	B) ded bladder pump
	1402	8.64	2.0	6.97	24.1	7100	1.3	-360.2	56.3	odor / black particles	C) non-ded bladder pump; or
	1405	8.70	2.5	6.97	23.7	7110	1.2	-361.4	54.7	↓	Standard groundwater sample:
	1407	8.74	3.0	6.96	23.6	7110	1.2	-362.0	54.1	Clear / Yellow tint /	D) bailer due to limited column; or
	1410	8.79	3.5	6.96	23.6	7080	1.2	-365.0	53.7	strong odor / black particles	E) recovery well cycling sample
↓	1412	8.83	4.0	6.96	23.6	7110	1.2	-366.1	51.7	↓	F) irrigation well grab sample
										* Sheen	

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1415	MW-86	8.83	6.96	23.6	7110	1.2	-366.1	51.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-120
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(5)

Initials: MDK

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1120	NP	10.67	0.00	28.00	17.5	Yes	Yes	Yes	Yes	\	Weather: Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1125	10.93	0.5	7.52	23.5	7926	2.1	-140.3	12.7	Clear / colorless	*Low-flow groundwater sample:*
↓	1127	10.93	1.0	7.49	23.6	8180	1.8	-141.4	10.4	↓	(A) peristaltic pump w/ ded tubing
	1130	10.93	1.5	7.46	22.9	8120	1.6	-142.9	9.8		B) ded bladder pump
	1132	10.93	2.0	7.45	22.8	8100	1.5	-145.7	9.1		C) non-ded bladder pump; or
	1135	10.93	2.5	7.43	22.7	8080	1.5	-146.2	7.6		*Standard groundwater sample:*
	1138	10.93	3.0	7.42	22.6	8040	1.4	-146.7	7.2		D) bailer due to limited column; or
	1140	10.93	3.5	7.41	22.5	8040	1.4	-147.2	6.3		E) recovery well cycling sample
	1142	10.93	4.0	7.41	22.5	7990	1.4	-148.5	6.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1145	MW-120	10.93	7.41	22.5	7990 (7990)	1.4	-148.5	6.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-12)
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (6)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1205	NP	9.83	0.00	27.31	17.5	Yes	Yes	Yes	Yes		Weather: Sl. cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1210	9.95	0.5	7.63	22.6	5720	2.1	-67.2	26.1	Clear/colorless	*Low-flow groundwater sample:*
	1212	10.03	1.0	7.59	22.3	5680	1.7	-60.0	23.4	|	(A) peristaltic pump w/ ded tubing
	1215	10.07	1.5	7.55	22.1	5670	1.6	-53.1	20.7	|	B) ded bladder pump
	1217	10.09	2.0	7.53	21.8	5660	1.5	-45.8	15.3	|	C) non-ded bladder pump; or
	1220	10.10	2.5	7.51	21.7	5660	1.5	-42.0	12.7	|	*Standard groundwater sample:*
	1222	10.11	3.0	7.50	21.4	5660	1.5	-38.2	10.0	|	D) bailer due to limited column; or
	1225	10.12	3.5	7.50	21.4	5650	1.4	-35.7	9.7	|	E) recovery well cycling sample
	1227	10.13	4.0	7.47	21.3	5640	1.4	-33.6	8.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6-16-20	1230	MW-12)	10.13	7.47	21.3	5640	1.4	-33.6	8.4	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-84
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: KWB (7)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1755	NP	9.49	0.00	20.56	15.2	Yes	Yes	Yes	Yes		Weather: SI-Cloudy 90's
6-17-20	1305	NP	9.46	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1310	9.55	0.5	7.21	24.0	9810	3.2	-120.4	19.6	Clear/Yellow tint	*Low-flow groundwater sample:*
	1312	9.59	1.0	7.19	23.4	9970	2.4	-119.2	16.3		(A) peristaltic pump w/ ded tubing
	1315	9.62	1.5	7.18	22.5	10090	1.9	-118.3	12.7		B) ded bladder pump
	1317	9.65	2.0	7.18	22.2	10130	1.5	-118.1	9.3		C) non-ded bladder pump; or
	1320	9.67	2.5	7.18	22.0	10140	1.5	-118.2	8.6		*Standard groundwater sample:*
	1322	9.69	3.0	7.17	22.0	10120	1.4	-118.7	8.1		D) bailer due to limited column; or
	1325	9.71	3.5	7.16	22.1	10090	1.4	-118.4	7.8		E) recovery well cycling sample
	1327	9.74	4.0	7.16	22.1	10140	1.4	-117.6	7.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1330	MW-84	9.74	7.16	22.1	10140	1.4	-117.6	7.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-122
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(8)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1330	NP	9.36	0.00	23.32	18.4	Yes	Yes	Yes	Yes		Weather: Clear 80's
6-17-20	915	NP	9.72	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	920	9.40	0.5	7.32	21.7	10340	2.3	-109.2	89.2	Clear/colorless/with smell	Low-flow groundwater sample:
	922	9.47	1.0	7.29	20.6	10780	1.9	-107.6	75.6	Orange particles	(A) peristaltic pump w/ ded tubing
	925	9.53	1.5	7.29	20.0	9550	1.6	-94.2	63.3		B) ded bladder pump
	927	9.60	2.0	7.27	19.8	8920	1.5	-83.7	61.8		C) non-ded bladder pump; or
	930	9.64	2.5	7.26	19.8	8590	1.5	-77.6	57.3		Standard groundwater sample:
	932	9.68	3.0	7.25	19.7	8410	1.4	-77.9	55.2		D) bailer due to limited column; or
	935	9.71	3.5	7.25	19.7	8370	1.4	-78.1	53.6		E) recovery well cycling sample
	937	9.74	4.0	7.24	19.6	8290	1.4	-83.6	52.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	940	MW-122	9.74	7.24	19.6	8290	1.4	-83.6	52.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-81
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDS (9)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1735	NP	9.25	0.00	18.62	13.7	Yes	Yes	Yes	Yes		
6-17-20	1000	NP	9.20	0.00								Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1005	9.29	0.5	7.56	22.5	6166	2.1	23.0	12.6	Clear/colorless	*Low-flow groundwater sample:*
	1007	9.36	1.0	7.43	21.8	6120	1.9	26.3	10.8		(A) peristaltic pump w/ ded tubing
	1010	9.40	1.5	7.34	21.2	6090	1.8	27.6	9.6		B) ded bladder pump
	1012	9.43	2.0	7.34	20.9	6060	1.6	31.5	8.3		C) non-ded bladder pump; or
	1015	9.46	2.5	7.31	20.8	6040	1.5	33.6	7.6		*Standard groundwater sample:*
	1017	9.49	3.0	7.29	20.8	6020	1.5	35.7	6.4		D) bailer due to limited column; or
	1020	9.52	3.5	7.27	20.8	6000	1.5	36.8	5.7		E) recovery well cycling sample
	1022	9.55	4.0	7.26	20.8	5990	1.5	38.3	5.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1025	MW-81	9.55	7.26	20.8	5990	1.5	38.3	5.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-80
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(10)

Initials: [illegible]

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1740	NP	7.34	0.00	19.69	14.7	Yes	Yes	Yes	Yes		Weather: Clear 90's
6-17-20	1045	NP	7.33	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1050	7.43	0.5	7.44	21.5	6080	2.9	52.8	17.6	Clear/ colorless	*Low-flow groundwater sample:*
	1052	7.47	1.0	7.36	20.5	6090	2.2	32.6	14.8		(A) peristaltic pump w/ ded tubing
	1055	7.48	1.5	7.33	20.0	6090	1.9	32.4	11.1		B) ded bladder pump
	1057	7.49	2.0	7.32	19.7	6100	1.7	27.8	9.4		C) non-ded bladder pump; or
	1100	7.49	2.5	7.30	19.5	6100	1.5	26.1	7.3		*Standard groundwater sample:*
	1102	7.49	3.0	7.27	19.3	6090	1.4	19.2	7.1		D) bailer due to limited column; or
	1105	7.49	3.5	7.24	19.2	6080	1.4	16.0	7.0		E) recovery well cycling sample
↓	1107	7.49	4.0	7.23	19.3	6070	1.4	13.0	6.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1110	MW-80	7.49	7.23	19.3	6070	1.4	13.0	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+EB-EP-04 (Same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-79
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDS (11)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1745	NP	9.18	0.00	19.24	15.0	Yes	Yes	Yes	Yes		Weather: Clear 90's
6-17-20	1130	NP	9.17	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1135	9.30	0.5	7.24	22.1	8980	1.9	-55.6	11.7	Clear / colorless	Low-flow groundwater sample:
↓	1137	9.33	1.0	7.18	21.7	9040	1.8	-56.2	10.6	↓	(A) peristaltic pump w/ ded tubing
	1140	9.35	1.5	7.17	20.5	9060	1.8	-58.3	9.3		B) ded bladder pump
	1142	9.38	2.0	7.15	20.3	9080	1.7	-57.2	8.4		C) non-ded bladder pump; or
	1145	9.40	2.5	7.13	20.0	9070	1.6	-56.0	6.2		Standard groundwater sample:
	1147	9.43	3.0	7.12	20.0	9070	1.5	-56.7	5.4		D) bailer due to limited column; or
	1150	9.45	3.5	7.11	20.0	9070	1.5	-57.2	4.7		E) recovery well cycling sample
↓	1152	9.47	4.0	7.10	20.0	9070	1.5	-57.9	4.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1155	MW-79	9.47	7.10	20.0	9070	1.5	-57.9	4.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1210	EB-EP-04	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-82
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(12)

Initials: MMB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1750	NP	8.51	0.00	20.02	15.0	Yes	Yes	Yes	Yes		Weather: Clear 90's
6-17-20	1220	NP	8.46	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1225	8.94	0.5	7.50	24.0	7380	2.0	-147.8	9.2	Clear / colorless	Low-flow groundwater sample:
	1227	8.95	1.0	7.43	22.8	7336	1.8	-147.9	8.4		(A) peristaltic pump w/ ded tubing
	1230	8.95	1.5	7.40	22.6	7310	1.7	-148.2	8.2		B) ded bladder pump
	1232	8.95	2.0	7.39	22.2	7290	1.6	-148.6	5.7		C) non-ded bladder pump; or
	1235	8.95	2.5	7.38	22.3	7270	1.5	-149.3	5.1		Standard groundwater sample:
	1237	8.95	3.0	7.37	22.3	7290	1.5	-149.7	4.3		D) bailer due to limited column; or
	1240	8.95	3.5	7.36	22.2	7280	1.4	-150.3	4.1		E) recovery well cycling sample
	1242	8.95	4.0	7.36	22.2	7280	1.4	-150.7	3.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1245	MW-82	8.95	7.36	22.2	7280	1.4	-150.7	3.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

*EB-EP-01 + Trip Blank-EP-04 (Same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-74
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(13)

Initials: MWA

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1250	NP	8.60	0.00	20.19	14.8	Yes	Yes	Yes	Yes		Weather: Sl. Cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1255	8.70	0.5	7.49	22.4	10300	1.8	70.7	7.9	Clear / colorless	*Low-flow groundwater sample:*
↓	1257	8.74	1.0	7.46	21.5	10410	1.5	70.5	7.1	↓	(A) peristaltic pump w/ ded tubing
	1300	8.76	1.5	7.36	21.3	10420	1.5	70.1	7.0		B) ded bladder pump
	1302	8.76	2.0	7.30	21.6	10440	1.4	69.3	6.3		C) non-ded bladder pump; or
	1305	8.76	2.5	7.27	20.8	10430	1.3	68.4	5.7		*Standard groundwater sample:*
	1307	8.76	3.0	7.24	20.7	10420	1.3	67.7	5.5		D) bailer due to limited column; or
	1310	8.76	3.5	7.21	20.6	10430	1.3	66.1	4.9		E) recovery well cycling sample
↓	1312	8.76	4.0	7.19	20.6	10430	1.3	65.5	4.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1315	MW-74	8.76	7.19	20.6	10430	1.3	65.5	4.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1330	EB-EP-01	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-73
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(14)

Initials: MJB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1345	NP	9.15	0.00	19.60	14.6	Yes	Yes	Yes	Yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1350	9.19	0.5	7.50	22.1	11910	1.9	-72.1	21.1	Clear / colorless	*Low-flow groundwater sample:*
	1352	9.20	1.0	7.46	21.9	11880	1.7	-75.4	17.6		(A) peristaltic pump w/ ded tubing
	1355	9.20	1.5	7.43	21.6	11870	1.5	-76.0	15.4		B) ded bladder pump
	1357	9.20	2.0	7.39	21.1	11860	1.5	-76.1	15.1		C) non-ded bladder pump; or
	1400	9.20	2.5	7.37	20.8	11880	1.4	-75.6	14.7		*Standard groundwater sample:*
	1402	9.20	3.0	7.35	20.5	11880	1.4	-74.2	13.6		D) bailer due to limited column; or
	1405	9.20	3.5	7.34	20.4	11860	1.3	-75.5	13.3		E) recovery well cycling sample
	1407	9.20	4.0	7.33	20.4	11860	1.3	-75.7	12.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1420	MW-73	9.20	7.33	20.4	11860	1.3	-75.7	12.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-2A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(15)

Initials: MDM

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1715	NP	8.02	0.00	17.30	15.0	Yes	Yes	Yes	Yes		Weather: Clear 80's
6-17-20	830	NP	7.97	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	835	8.19	0.5	7.61	20.9	5500	2.2	-123.5	9.7	clear/colorless	Low-flow groundwater sample:
	837	8.25	1.0	7.56	20.7	5410	1.7	-124.3	9.2		(A) peristaltic pump w/ ded tubing
	840	8.31	1.5	7.50	20.5	5350	1.4	-126.4	8.6		B) ded bladder pump
	842	8.34	2.0	7.49	20.4	5270	1.3	-126.1	7.3		C) non-ded bladder pump; or
	845	8.37	2.5	7.47	20.3	5190	1.4	-125.7	6.4		Standard groundwater sample:
	847	8.39	3.0	7.46	20.2	5140	1.4	-125.5	6.3		D) bailer due to limited column: or
	850	8.42	3.5	7.45	20.3	5070	1.6	-125.2	5.6		E) recovery well cycling sample
	852	8.45	4.0	7.44	20.3	5040	1.4	-124.9	5.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	855	MW-2A	8.45	7.44	20.3	5040	1.4	-124.9	5.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-2B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(16)

Initials: KGA

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1720	NP	9.95	0.00	52.00	NS	Yes	Yes	Yes	Yes		Weather: Cl

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-2B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-72
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(17)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1625	NP	6.65	0.00	13.93	11.9	Yes	Yes	Yes	Yes		Weather: SI. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1630	6.89	0.5	7.22	23.9	11590	2.6	18.0	14.9	Clear / colorless	*Low-flow groundwater sample:*
↓	1632	6.90	1.0	7.11	22.4	11520	2.1	27.0	13.6	↓	(A) peristaltic pump w/ ded tubing
	1635	6.90	1.5	7.07	22.0	11470	1.5	30.1	12.1		B) ded bladder pump
	1637	6.90	2.0	7.03	21.6	11440	1.4	32.6	10.7		C) non-ded bladder pump; or
	1640	6.90	2.5	7.00	21.0	11410	1.4	33.9	6.2		*Standard groundwater sample:*
	1642	6.90	3.0	6.98	21.0	11400	1.4	25.6	5.9		D) bailer due to limited column; or
	1645	6.90	3.5	6.97	20.9	11380	1.4	21.3	5.1		E) recovery well cycling sample
↓	1647	6.90	4.0	6.96	20.8	11370	1.4	20.6	4.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1650	MW-72	6.90	6.96	20.8	11370	1.4	20.6	4.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-6
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(18)

Initials MDS

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1540	NP	7.51	0.00	26.69	21.6	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1545	7.66	0.5	7.27	21.5	15600	1.9	-79.7	35.2	Clear/colorless/orange particles	*Low-flow groundwater sample:*
	1547	7.66	1.0	7.21	21.1	14870	1.7	-79.2	27.6		(A) peristaltic pump w/ ded tubing
	1550	7.66	1.5	7.18	20.8	14100	1.6	-78.6	16.3		B) ded bladder pump
	1552	7.66	2.0	7.12	20.6	13760	1.4	-78.2	12.4		C) non-ded bladder pump; or
	1555	7.66	2.5	7.10	20.2	13180	1.4	-78.3	8.7		*Standard groundwater sample:*
	857	7.66	3.0	7.09	20.0	13010	1.4	-78.5	6.3		D) bailer due to limited column; or
	1600	7.66	3.5	7.08	19.8	12940	1.3	-78.3	5.4		E) recovery well cycling sample
	1602	7.66	4.0	7.07	19.7	12910	1.3	-78.4	4.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1605	OCD-6	7.66	7.07	19.7	12910	1.3	-78.4	4.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD - 7AR
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (19)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1445	NP	6.35	0.00	21.28	16.0	Yes	Yes	Yes	Yes		Weather: SI Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1450	6.56	0.5	7.26	23.8	13000	2.4	-139.2	18.7	Clear / Colorless	Low-flow groundwater sample:
	1452	6.60	1.0	7.24	23.4	13000	1.9	-140.6	18.1		(A) peristaltic pump w/ ded tubing
	1455	6.62	1.5	7.21	23.1	13000	1.6	-141.3	16.3		B) ded bladder pump
	1457	6.65	2.0	7.18	22.9	12990	1.4	-142.0	12.7		C) non-ded bladder pump; or
	1500	6.67	2.5	7.17	22.5	13050	1.3	-142.6	10.4		Standard groundwater sample:
	1502	6.70	3.0	7.16	22.2	13020	1.3	-143.2	9.7		D) bailer due to limited column; or
	1505	6.73	3.5	7.15	22.3	13010	1.3	-144.9	9.0		E) recovery well cycling sample
↓	1507	6.76	4.0	7.14	22.3	12950	1.3	-145.1	8.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1510	OCD-7AR	6.76	7.14	22.3	12950	1.3	-145.1	8.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-7B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDH (20)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1525	NP	6.96	0.00	56.85	51.9	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-7B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-7C
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDG (21)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1530	ND	7.99	0.00	71.95	NS	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-7C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Annually- bagged tube + guidance device

Monitoring Well Purging and Sampling Record

(Tool Co. locks gate by 5:00 PM)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#15C
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other ✓	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(22)

Initials: mcB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	940	18.71	18.99	0.28	22.30	20.0	Yes	Yes	Yes	Yes		Weather: Sl. Cloudy 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not sampled due to presence						C) non-ded bladder pump; or
			2.5		of LNAPL ≥ 0.03'						*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#15C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-48
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDM (23)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	935	20.79	20.82	0.03	32.00	26.9	Yes	Yes	*Issue	Yes		Weather:

* At-grade plug missing, At-grade pad cracked per IH19 : completion needs complete re-do

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water: Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		Not Sampled due to presence						B) ded bladder pump
			2.0		of LNAPL	20.03					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-48								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW - 130
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDS / BRH (24)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	930	NP	22.49	0.00	45.00	37.4	Yes	Yes	Yes	Yes		Weather: Sunny, 100
6-17-20	1345	NP	22.47	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1350	22.53	0.5	6.91	26.0	2440	2.8	-78.7	17.2	colorless, clear	*Low-flow groundwater sample:*
	1353	22.54	1.0	6.79	24.9	2440	2.4	-67.3	14.9		(A) peristaltic pump w/ ded tubing
	1355	22.54	1.5	6.74	24.6	2440	2.1	-48.5	10.8		B) ded bladder pump
	1358	22.54	2.0	6.71	24.2	2430	1.9	-40.3	9.7		C) non-ded bladder pump; or
	1400	22.54	2.5	6.69	23.9	2430	1.8	-37.2	9.3		*Standard groundwater sample:*
	1403	22.54	3.0	6.68	23.8	2430	1.7	-35.0	8.8		D) bailer due to limited column; or
	1405	22.54	3.5	6.68	23.7	2420	1.6	-33.9	8.7		E) recovery well cycling sample
↓	1408	22.54	4.0	6.67	23.7	2420	1.6	-32.8	8.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1410	MW-130	22.54	6.67	23.7	2420	1.6	-32.8	8.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-4
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (25)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	950	26.39	28.10	1.71	41.75	31.7	Yes	Yes	Yes	Yes		Weather: Sl. Cloudy, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		Not	Sampled	due to	presence			B) ded bladder pump
			2.0		of	LNAPL					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Gauge to top of 1-in galvanized pipe)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-19
Event: 1H20
Area of Concern: REST

Completion:	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC __
Upright __	4-in __	SS __
Vault ✓	Other ✓	Other ✓

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MBB (26)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1000	27.25	27.30	0.05	NM	10' off base as needed	Yes	Yes	Yes	Yes		Weather: Sl. Cloudy 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5			Not Sampled due to presence of LNAPL		≥ 0.03'			B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-19								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-76
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (27)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1625	NP	10.31	0.00	20.33	16.0	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90s
6/17/20	1300	NP	10.29	0.00								Pt. Cloudy 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1305	10.34	0.5	6.86	23.9	7220	2.9	-196.1	9.7	colorless/clear	*Low-flow groundwater sample:*
	1307	10.34	1.0	6.84	23.1	7200	2.2	-199.1	8.9		(A) peristaltic pump w/ ded tubing
	1310	10.34	1.5	6.83	23.0	7190	2.0	-199.5	8.1		B) ded bladder pump
	1312	10.34	2.0	6.82	22.8	7190	1.9	-200.1	7.5		C) non-ded bladder pump; or
	1315	10.34	2.5	6.82	22.7	7180	1.9	-201.5	7.2		*Standard groundwater sample:*
	1317	10.34	3.0	6.81	22.7	7180	1.8	-201.8	6.9		D) bailer due to limited column; or
	1320	10.34	3.5	6.81	22.8	7170	1.8	-202.3	6.5		E) recovery well cycling sample
↓	1322	10.34	4.0	6.81	22.8	7170	1.8	-202.5	6.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1325	MW-76	10.34	6.81	22.8	7170	1.8	-202.5	6.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-77
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (28)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1630	NP	8.60	0.00	20.52	15.2	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1345	NP	8.54	0.00								Pt. Cloudy 100's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1350	8.68	0.5	6.99	24.5	7780	3.2	-158.4	10.2	Gold tint / clear	*Low-flow groundwater sample:*
	1352	8.70	1.0	6.94	23.9	7890	2.4	-164.1	8.1	odor	(A) peristaltic pump w/ ded tubing
	1355	8.72	1.5	6.91	23.5	7910	2.1	-169.2	7.5		B) ded bladder pump
	1357	8.73	2.0	6.89	23.3	7940	2.0	-172.5	7.0		C) non-ded bladder pump; or
	1400	8.74	2.5	6.87	23.2	7960	1.9	-174.1	6.5		*Standard groundwater sample:*
	1402	8.74	3.0	6.86	23.2	7970	1.9	-176.2	6.1		D) bailer due to limited column; or
	1405	8.74	3.5	6.86	23.1	7970	1.8	-177.3	5.9		E) recovery well cycling sample
↓	1407	8.74	4.0	6.85	23.1	7980	1.8	-177.4	5.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1410	MW-77	8.74	6.85	23.1	7980	1.8	-177.4	5.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-78
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCO (29)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1635	NP	8.69	0.00	19.57	14.6	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1430	NP	8.64	0.00								Pt. Cloudy 100's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1435	8.72	0.5	7.20	22.4	4580	2.9	-72.8	7.5	Gold tint / clear	*Low-flow groundwater sample:*
	1437	8.79	1.0	7.14	21.7	4510	2.2	-70.4	6.7		(A) peristaltic pump w/ ded tubing
	1440	8.84	1.5	7.08	21.5	4470	2.0	-68.2	6.1		B) ded bladder pump
	1442	8.88	2.0	7.06	21.3	4450	1.9	-67.2	5.7		C) non-ded bladder pump; or
	1445	8.92	2.5	7.05	21.2	4430	1.9	-66.9	5.4		*Standard groundwater sample:*
	1447	8.96	3.0	7.05	21.2	4420	1.8	-65.8	5.1		D) bailer due to limited column; or
	1450	9.00	3.5	7.04	21.1	4420	1.8	-65.5	4.9		E) recovery well cycling sample
↓	1452	9.04	4.0	7.04	21.1	4410	1.8	-65.1	4.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1455	MW-78	9.04	7.04	21.1	4410	1.8	-65.1	4.7	Per COC	Per COC	Lab: Pace National, Mt. Julie:, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-75
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (30)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1640	NP	8.71	0.00	23.74	18.4	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1515	NP	8.66	0.00								Pt. Cloudy 100's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1520	8.69	0.5	7.30	23.4	7450	2.1	-155.3	15.1	colorless/clear	*Low-flow groundwater sample:*
	1522	8.70	1.0	7.28	22.1	7420	1.6	-156.9	12.9		(A) peristaltic pump w/ ded tubing
	1525	8.70	1.5	7.26	21.9	7380	1.3	-159.3	10.2		B) ded bladder pump
	1527	8.70	2.0	7.25	21.7	7360	1.2	-161.2	9.8		C) non-ded bladder pump; or
	1530	8.70	2.5	7.25	21.6	7350	1.2	-163.9	9.1		*Standard groundwater sample:*
	1532	8.70	3.0	7.24	21.6	7350	1.1	-165.1	8.9		D) bailer due to limited column; or
	1535	8.70	3.5	7.24	21.5	7340	1.1	-166.2	8.7		E) recovery well cycling sample
	1537	8.70	4.0	7.24	21.5	7340	1.1	-166.8	8.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1540	MW-75	8.70	7.24	21.5	7340	1.1	-166.8	8.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-83
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (31)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1645	NP	8.56	0.00	19.91	15.6	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1215	NP	8.50	0.00								Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1220	8.59	0.5	6.91	23.9	6320	2.5	-5.7	11.9	colorless/clear	*Low-flow groundwater sample:*
	1222	8.64	1.0	6.85	23.5	6410	2.1	-14.8	10.1		(A) peristaltic pump w/ ded tubing
	1225	8.65	1.5	6.83	23.1	6510	1.9	-33.8	9.5		B) ded bladder pump
	1227	8.65	2.0	6.82	22.9	6520	1.7	-39.1	9.0		C) non-ded bladder pump; or
	1230	8.65	2.5	6.82	22.8	6530	1.6	-42.8	8.6		*Standard groundwater sample:*
	1232	8.65	3.0	6.81	22.8	6530	1.6	-45.9	8.1		D) bailer due to limited column; or
	1235	8.65	3.5	6.81	22.8	6540	1.5	-47.1	7.9		E) recovery well cycling sample
↓	1237	8.65	4.0	6.81	22.7	6540	1.5	-49.2	7.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1240	MW-83	8.65	6.81	22.7	6540	1.5	-49.2	7.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Dup-EP-03 (same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-3
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (32)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1650	NP	10.58	0.00	22.10	18.1	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1115	NP	10.53	0.00								Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1120	10.58	0.5	7.09	24.4	8170	3.3	-71.0	10.1	colorless/clear	*Low-flow groundwater sample:*
↓	1122	10.59	1.0	7.06	22.7	7480	2.7	-48.6	9.5	↓	(A) peristaltic pump w/ ded tubing
	1125	10.59	1.5	7.04	22.0	7180	2.2	-33.9	8.9		B) ded bladder pump
	1127	10.59	2.0	7.03	21.9	7000	2.0	-24.8	8.2		C) non-ded bladder pump; or
	1130	10.59	2.5	7.02	21.8	6910	1.9	-20.9	7.9		*Standard groundwater sample:*
	1132	10.59	3.0	7.02	21.8	6890	1.9	-18.1	7.5		D) bailer due to limited column; or
	1135	10.59	3.5	7.01	21.7	6880	1.8	-17.9	6.9		E) recovery well cycling sample
↓	1137	10.59	4.0	7.01	21.7	6870	1.8	-17.5	6.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1140	MW-3	10.59	7.01	21.7	6870	1.8	-17.5	6.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1100	Dup-EP-03	10.59	7.01	21.7	6870	1.8	-17.5	6.0	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-88
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (33)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1700	NP	9.00	0.00	20.31	14.8	Yes	Yes	Yes	Yes	Issue	Weather: Pt. Cloudy 90's

Well Purging Record

4 Issue with pad; hole in west side of pad well remain functional

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1705	9.05	0.5	7.19	22.9	7290	2.2	-159.9	13.2	colorless/clear w/	*Low-flow groundwater sample:*
	1707	9.06	1.0	7.15	22.6	7250	1.9	-155.8	11.5	orange particles	(A) peristaltic pump w/ ded tubing
	1710	9.06	1.5	7.12	22.4	7210	1.7	-152.1	9.5		B) ded bladder pump
	1712	9.06	2.0	7.10	22.2	7180	1.5	-150.9	8.9		C) non-ded bladder pump; or
	1715	9.06	2.5	7.09	22.1	7160	1.4	-147.2	8.0		*Standard groundwater sample:*
	1717	9.06	3.0	7.08	22.1	7150	1.4	-145.9	7.5		D) bailer due to limited column; or
	1720	9.06	3.5	7.08	22.1	7150	1.3	-144.3	7.1		E) recovery well cycling sample
↓	1722	9.06	4.0	7.07	22.0	7160	1.3	-144.0	6.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1725	MW-88	9.06	7.07	22.0	7160	1.3	-144.0	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+ Dup-EP-02 (same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-22A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (34)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1745	NP	8.12	0.00	22.65	17.4	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	1000	NP	8.09	0.00								Pt. Cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1005	8.15	0.5	6.96	21.8	15,530	3.1	-31.7	9.5	colorless/clear	*Low-flow groundwater sample:*
"	1007	8.21	1.0	6.94	20.8	15,890	2.5	-33.6	8.6	"	(A) peristaltic pump w/ ded tubing
"	1010	8.24	1.5	6.93	20.5	15,950	2.1	-32.3	8.1	"	B) ded bladder pump
"	1012	8.27	2.0	6.93	20.3	15,980	2.0	-33.4	7.5	"	C) non-ded bladder pump; or
"	1015	8.28	2.5	6.92	20.2	16,000	1.9	-33.9	7.0	"	*Standard groundwater sample:*
"	1017	8.29	3.0	6.92	20.2	16,010	1.9	-34.2	6.8	"	D) bailer due to limited column; or
"	1020	8.29	3.5	6.92	20.1	16,010	1.8	-34.5	6.2	"	E) recovery well cycling sample
↓	1022	8.30	4.0	6.91	20.1	16,020	1.8	-34.8	6.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1025	MW-22A	8.30	6.91	20.1	16,020	1.8	-34.8	6.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓	1000	Dup-EP-02	8.30	6.91	20.1	16,020	1.8	-34.8	6.0	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-22B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (35)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1748	NP	7.72	0.00	54.66	49.7	Yes	Yes	Yes	Yes		Weather: Pt. Cloud, 90's
6/17/20	1100	NP	7.70	0.00								Pt. Cloud, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-22B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-10
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (36)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1751	NP	5.80	0.00	18.45	13.3	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy, 90's
6/17/20	915	NP	5.76	0.00								Pt. Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	920	5.77	0.5	6.99	21.6	7020	2.9	-157.8	8.9	colorless/clear w/	*Low-flow groundwater sample:*
"	922	5.78	1.0	6.95	20.7	6920	2.4	-134.0	7.5	orange particles	(A) peristaltic pump w/ ded tubing
"	925	5.78	1.5	6.94	20.6	6870	2.2	-123.1	7.1	"	B) ded bladder pump
"	927	5.78	2.0	6.93	20.4	6830	2.1	-118.5	6.8	"	C) non-ded bladder pump; or
"	930	5.78	2.5	6.92	20.3	6820	2.1	-115.1	6.5	"	*Standard groundwater sample:*
"	932	5.78	3.0	6.92	20.3	6810	2.0	-113.8	6.3	"	D) bailer due to limited column; or
"	935	5.78	3.5	6.92	20.2	6810	2.0	-112.5	5.9	"	E) recovery well cycling sample
↓	937	5.78	4.0	6.91	20.2	6800	2.0	-111.9	5.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	940	MW-10	5.78	6.91	20.2	6800	2.0	-111.9	5.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03"; if LNAPL thickness is measured at 0.01" or 0.02", remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-123
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (37)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1755	NP	6.34	0.00	25.71	25.0	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's
6/17/20	830	NP	6.32	0.00								Pt. Cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	835	6.33	0.5	7.02	20.3	8030	3.2	-187.6	9.8	colorless/clear	*Low-flow groundwater sample:*
	837	6.33	1.0	6.97	19.6	7670	2.8	-174.5	7.5		(A) peristaltic pump w/ ded tubing
	840	6.33	1.5	6.94	19.2	7460	2.5	-156.1	7.1		B) ded bladder pump
	842	6.33	2.0	6.93	19.1	7320	2.1	-133.9	6.8		C) non-ded bladder pump; or
	845	6.33	2.5	6.92	19.1	7290	1.9	-129.5	6.2		*Standard groundwater sample:*
	847	6.33	3.0	6.92	19.0	7270	1.8	-125.3	6.0		D) bailer due to limited column; or
	850	6.33	3.5	6.91	19.0	7260	1.8	-123.1	5.8		E) recovery well cycling sample
↓	852	6.33	4.0	6.91	19.0	7250	1.7	-121.5	5.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	855	MW-123	6.33	6.91	19.0	7250	1.7	-121.5	5.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-4A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (38)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1530	NP	10.82	0.00	16.55	Well Base	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water: Color / Clarity	
6/16/20	1535	10.83	0.5	7.18	23.4	5510	3.0	-154.9	11.5	colorless/clear w/	*Low-flow groundwater sample:*
	1537	10.83	1.0	7.12	22.9	5580	2.4	-160.2	10.5	black particles	(A) peristaltic pump w/ ded tubing
	1540	10.83	1.5	7.10	22.7	5620	2.2	-165.9	9.8		B) ded bladder pump
	1542	10.83	2.0	7.06	22.6	5650	2.1	-167.2	9.1		C) non-ded bladder pump; or
	1545	10.83	2.5	7.07	22.6	5670	2.1	-169.2	8.5		*Standard groundwater sample:*
	1547	10.83	3.0	7.07	22.5	5660	2.0	-171.8	8.1		D) bailer due to limited column; or
	1550	10.83	3.5	7.06	22.5	5690	2.0	-173.4	7.3		E) recovery well cycling sample
↓	1552	10.83	4.0	7.06	22.5	5690	2.0	-175.2	7.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1555	MW-4A	10.83	7.06	22.5	5690	2.0	-175.2	7.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-4B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (39)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Labe.	Other	
6/16/20	1615	NP	10.60	0.00	72.37	67.4	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-4B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+EB-EP-03 (Same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (40)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1425	NP	8.55	0.00	20.15	14.8	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1430	8.61	0.5	7.27	22.9	11,610	2.7	-110.5	11.3	clear/colorless w/ orange particles	*Low-flow groundwater sample:*
	1432	8.61	1.0	7.18	22.5	11,690	2.1	-113.9	9.5		(A) peristaltic pump w/ ded tubing
	1435	8.61	1.5	7.14	22.3	11,720	1.9	-115.9	9.1		B) ded bladder pump
	1437	8.61	2.0	7.10	22.2	11,750	1.8	-116.1	8.6		C) non-ded bladder pump; or
	1440	8.61	2.5	7.09	22.2	11,770	1.8	-116.3	8.0		*Standard groundwater sample:*
	1442	8.61	3.0	7.09	22.1	11,780	1.7	-116.9	7.7		D) bailer due to limited column; or
	1445	8.61	3.5	7.08	22.1	11,780	1.7	-117.2	7.3		E) recovery well cycling sample
↓	1447	8.61	4.0	7.08	22.1	11,790	1.7	-117.5	6.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1450	MW-5A	8.61	7.08	22.1	11,790	1.7	-117.5	6.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓	1505	EB-EP-03	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (41)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1515	NP	5.08	0.00	53.54	48.5	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-5B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5C
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (42)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1520	NP	8.25	0.00	71.64	66.6	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-5C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+Dup-EP-01 (Same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-7A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (43)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1320	NP	8.74	0.00	18.65	13.6	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1325	8.84	0.5	7.29	21.7	10,120	2.5	-99.7	12.9	Clear / colorless	*Low-flow groundwater sample:*
	1327	8.85	1.0	7.26	21.4	10,050	2.0	-102.8	10.3		(A) peristaltic pump w/ ded tubing
	1330	8.85	1.5	7.24	21.0	9,970	1.7	-105.9	9.8		B) ded bladder pump
	1332	8.85	2.0	7.23	20.9	9,940	1.5	-108.9	9.1		C) non-ded bladder pump; or
	1335	8.85	2.5	7.23	20.9	9,910	1.4	-110.5	8.7		*Standard groundwater sample:*
	1337	8.85	3.0	7.22	21.0	9,890	1.4	-112.3	8.3		D) bailer due to limited column; or
	1340	8.85	3.5	7.22	21.0	9,880	1.3	-113.4	7.9		E) recovery well cycling sample
↓	1342	8.85	4.0	7.23	21.0	9,870	1.3	-113.9	7.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6/16/20	1345	MW-7A	8.85	7.23	21.0	9,870	1.3	-113.9	7.5	Per COC	Per COC	
↓												
↓	1200	Dup-EP-01	8.85	7.23	21.0	9,870	1.3	-113.9	7.5	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-7B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (44)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1415	NS	8.52	0.00	52.56	47.6	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std unit's)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-7B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03"; if LNAPL thickness is measured at 0.01" or 0.02", remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank - EP-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-8A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (45)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1225	NP	8.85	0.00	20.74	16.4	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1230	8.90	0.5	7.13	22.2	17960	3.2	-131.2	10.4	Clear/colorless	*Low-flow groundwater sample:*
	1232	9.05	1.0	7.08	21.8	18,050	2.3	-137.5	9.5		(A) peristaltic pump w/ ded tubing
	1235	9.12	1.5	7.04	21.6	18,180	2.0	-140.2	8.9		B) ded bladder pump
	1237	9.17	2.0	7.02	21.5	18,410	1.9	-143.8	8.1		C) non-ded bladder pump; or
	1240	9.19	2.5	7.02	21.5	18,490	1.9	-145.9	7.5		*Standard groundwater sample:*
	1242	9.20	3.0	7.01	21.4	18,520	1.8	-146.2	7.1		D) bailer due to limited column; or
	1245	9.21	3.5	7.01	21.4	18,530	1.8	-146.6	6.8		E) recovery well cycling sample
↓	1247	9.21	4.0	7.01	21.4	18,540	1.8	-146.9	6.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/16/20	1250	OCD-8A	9.21	7.01	21.4	18,540	1.8	-146.9	6.3	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-8B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (46)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1310	NP	7.98	0.00	56.65	51.7	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-8B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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DO NOT ADDRESS AT ALL IN 1H20

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-P4
Event: 1H20
Area of Concern: REST

Completion:	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (47)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20					30.26	22.8						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-P4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-25
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (48)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1240	NP	12.82	0.00	28.18	23.2	Yes	Yes	Yes	Yes		Weather: Sunny, 80s
6-17-20	845	NP	12.84	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	850	13.14	0.5	7.58	21.3	3680	2.4	47.1	7.9	colorless, clear	*Low-flow groundwater sample:*
↓	853	13.16	1.0	7.46	20.2	3740	2.3	48.0	6.8	↓	(A) peristaltic pump w/ ded tubing
	855	13.17	1.5	7.39	19.3	3690	2.0	45.6	6.2		B) ded bladder pump
	858	13.18	2.0	7.36	19.1	3640	1.9	41.9	5.4		C) non-ded bladder pump; or
	900	13.18	2.5	7.34	19.0	3570	1.8	39.6	4.9		*Standard groundwater sample:*
	903	13.18	3.0	7.32	18.9	3550	1.7	37.2	4.6		D) bailer due to limited column; or
	905	13.18	3.5	7.31	18.9	3540	1.7	35.1	4.2		E) recovery well cycling sample
↓	908	13.18	4.0	7.30	18.8	3530	1.6	34.4	3.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	910	MW-25	13.18	7.30	18.8	3530	1.6	34.4	3.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-8
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BJH

(49)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1245	NP	11.15	0.00	>14.95	NS	Yes	Issue	Yes	Yes	Issue (Pad)	Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		As historically noted:						A) peristaltic pump w/ ded tubing
			1.5		• PVC riser added in 1H19.						B) ded bladder pump
			2.0		• well to be P&A pending H2O3						C) non-ded bladder pump; or
			2.5		approval per SESI. If not, a						*Standard groundwater sample:*
			3.0		new pad will need to be installed						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
										Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-1R
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BJH (50)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1250	NP	9.04	0.00	20.63	15.6	Yes	Issue	Yes	Yes		Weather: Sunny, 80s
6-17-20	935	NP	9.05	0.00								

casing lid is bent making closure difficult. well still locks & is functional.

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	940	9.21	0.5	7.40	20.7	5580	2.6	-103.3	7.9	colorless, clear	*Low-flow groundwater sample:*
↓	943	9.21	1.0	7.43	19.1	5520	2.2	-106.7	7.0	↓	(A) peristaltic pump w/ ded tubing
↓	945	9.21	1.5	7.44	18.6	5500	2.0	-109.2	6.4	↓	B) ded bladder pump
↓	948	9.21	2.0	7.37	18.4	5470	1.9	-111.7	5.2	↓	C) non-ded bladder pump; or
↓	950	9.21	2.5	7.31	18.3	5450	1.8	-113.5	4.9	↓	*Standard groundwater sample:*
↓	953	9.21	3.0	7.28	18.2	5440	1.6	-115.0	4.3	↓	D) bailer due to limited column; or
↓	955	9.21	3.5	7.26	18.2	5430	1.5	-116.1	3.7	↓	E) recovery well cycling sample
↓	958	9.21	4.0	7.25	18.2	5420	1.5	-116.9	3.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1000	MW-1R	9.21	7.25	18.2	5420	1.5	-116.9	3.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03"; if LNAPL thickness is measured at 0.01" or 0.02", remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-15
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (5!)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1255	NP	9.63	0.00	21.70	17.7	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
6-17-20	1020	NP	9.63	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1025	9.67	0.5	7.56	23.0	4480	2.2	36.6	7.9	colorless, clear	*Low-flow groundwater sample:*
↓	1028	9.67	1.0	7.48	20.8	4390	2.0	35.1	7.2	↓	(A) peristaltic pump w/ ded tubing
	1030	9.67	1.5	7.43	20.1	4350	1.9	34.5	6.7		B) ded bladder pump
	1033	9.67	2.0	7.40	19.7	4330	1.8	32.9	6.1		C) non-ded bladder pump; or
	1035	9.67	2.5	7.38	19.5	4320	1.7	30.7	5.8		*Standard groundwater sample:*
	1038	9.67	3.0	7.36	19.4	4280	1.7	29.6	5.3		D) bailer due to limited column; or
	1040	9.67	3.5	7.35	19.3	4270	1.6	27.5	4.9		E) recovery well cycling sample
↓	1043	9.67	4.0	7.34	19.3	4270	1.6	25.8	4.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1045	MW-15	9.67	7.34	19.3	4270	1.6	25.8	4.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+ Trip Blank - EP-03

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-1R
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/DJD (52)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1305	NP	9.50	0.00	23.74	18.4	Yes	Yes	Yes	Yes		Weather: Clear 90's
6-17-20	1350	NP	9.41	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1355	9.64	0.5	7.25	28.6	6190	2.4	-38.7	12.6	Colorless/Clear	*Low-flow groundwater sample:*
	1358	9.64	1.0	7.21	28.9	6180	2.1	-35.8	10.5		(A) peristaltic pump w/ ded tubing
	1300	9.64	1.5	7.18	28.6	6170	1.8	-33.5	9.8		B) ded bladder pump
	1403	9.64	2.0	7.15	28.4	6150	1.6	-32.5	9.2		C) non-ded bladder pump; or
	1405	9.64	2.5	7.13	28.1	6130	1.5	-31.8	8.7		*Standard groundwater sample:*
	1407	9.64	3.0	7.10	27.8	6110	1.5	-30.7	8.2		D) bailer due to limited column; or
	1410	9.64	3.5	7.09	27.5	6090	1.4	-29.5	7.8		E) recovery well cycling sample
↓	1413	9.64	4.0	7.08	27.3	6070	1.3	-28.5	7.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6-17-20	1415	OCD-1R	9.64	7.08	27.3	6070	1.3	-28.5	7.5	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD - 2A
Event: iH2O
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/DJD (53)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1310	NP	9.16	0.00	27.56	22.3	Yes	Yes	Yes	Yes		Weather: Clear 80s
6-17-20	1300	NP	9.10	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1305	9.28	0.5	7.36	27.3	7650	2.7	-64.5	13.8	colorless/clear	*Low-flow groundwater sample:*
	1308	9.28	1.0	7.21	26.9	6980	2.4	-41.7	11.8		(A) peristaltic pump w/ ded tubing
	1310	9.28	1.5	7.18	26.5	6950	2.2	-38.6	9.6		B) ded bladder pump
	1312	9.28	2.0	7.15	26.3	6920	2.2	-31.7	9.5		C) non-ded bladder pump; or
	1315	9.28	2.5	7.12	26.2	6880	2.1	-25.6	7.8		*Standard groundwater sample:*
	1318	9.28	3.0	7.12	25.9	6860	2.1	-21.8	6.4		D) bailer due to limited column; or
	1320	9.28	3.5	7.11	25.7	6890	2.1	-20.9	6.1		E) recovery well cycling sample
	1323	9.28	4.0	7.10	25.3	6810	2.1	-19.5	5.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1325	OCD-2A	9.28	7.10	25.3	6810	2.1	-19.5	5.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-2B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (54)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1315	NAP	10.50	0.00	50.38	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-2B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-3
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/OSD (55)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1340	NP	9.78	0.00	25.20	20.2	Yes	Yes	Yes	Yes		Weather: Clear 80's
6-17-20	1120	NP	9.71	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1125	9.88	0.5	7.75	28.7	5330	3.3	-23.5	9.6	Colorless/clear	*Low-flow groundwater sample:*
"	1127	9.88	1.0	7.66	28.2	4360	2.9	-21.4	9.2	"	(A) peristaltic pump w/ ded tubing
"	1130	9.88	1.5	7.58	27.6	4070	2.6	-18.5	8.6	"	B) ded bladder pump
"	1132	9.88	2.0	7.52	27.2	3970	2.3	-16.8	8.3	"	C) non-ded bladder pump; or
"	1135	9.88	2.5	7.48	26.9	3920	2.3	-15.7	7.6	"	*Standard groundwater sample:*
"	1137	9.88	3.0	7.41	26.5	3870	2.2	-14.5	6.5	"	D) bailer due to limited column; or
"	1140	9.88	3.5	7.39	26.5	3820	2.1	-13.6	6.3	"	E) recovery well cycling sample
↓	1142	9.88	4.0	7.35	26.3	3810	2.1	-11.7	5.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6-17-20	1145	OCD-3	9.88	7.35	26.3	3810	2.1	-11.7	5.3	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-4
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/DSD (56)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1345	NP	9.35	0.00	25.41	20.1	Yes	Yes	Yes	Yes		Weather: Clear 80s
6-17-20	1030	NP	9.29	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1035	9.42	0.5	7.29	27.6	11940	3.8	-37.5	10.7	Colorless/Clear	*Low-flow groundwater sample:*
	1037	9.42	1.0	7.25	27.3	12310	3.2	-32.6	9.8		(A) peristaltic pump w/ ded tubing
	1040	9.42	1.5	7.21	26.8	12330	3.0	-28.4	9.5		B) ded bladder pump
	1042	9.42	2.0	7.18	26.5	12340	2.9	-25.6	9.1		C) non-ded bladder pump; or
	1045	9.42	2.5	7.15	26.2	12360	2.8	-23.8	8.6		*Standard groundwater sample:*
	1048	9.42	3.0	7.14	26.1	12380	2.6	-21.7	8.1		D) bailer due to limited column; or
✓	1050	9.42	3.5	7.13	25.8	13100	2.5	-20.8	7.8		E) recovery well cycling sample
	1053	9.42	4.0	7.12	25.4	13120	2.4	-19.5	7.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1055	OCD-4	9.42	7.12	25.4	13120	2.4	-19.5	7.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-11A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/OSD (57)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1325	NP	8.18	0.00	22.01	17.0	Yes	Yes	Yes	Yes		Weather Clear 80's
6-17-20	1210	NP	8.17	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1215	8.29	0.5	6.91	28.7	16430	3.1	-57.8	5.8	colorless/clear w/ orange particles	Low-flow groundwater sample:
	1218	8.31	1.0	6.88	28.2	16420	2.7	-52.7	5.4		(A) peristaltic pump w/ ded tubing
	1220	8.31	1.5	6.81	27.6	16310	2.5	-50.6	5.1		B) ded bladder pump
	1223	8.31	2.0	6.75	27.5	16290	2.5	-49.8	4.7		C) non-ded bladder pump; or
	1225	8.31	2.5	6.72	27.2	16270	2.4	-42.3	4.8		Standard groundwater sample:
	1228	8.31	3.0	6.68	27.1	16250	2.3	-40.9	3.7		D) bailer due to limited column; or
	1230	8.31	3.5	6.61	26.8	16210	2.3	-39.7	3.3		E) recovery well cycling sample
	1232	8.31	4.0	6.59	26.7	16190	2.2	-38.5	2.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1235	MW-11A	8.31	6.59	26.7	16190	2.2	-38.5	2.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-11B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (58)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1330	NP	7.98	0.00	47.30	42.3	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-11B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-5
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH/OSD (59)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1350	NP	7.61	0.00	25.41	20.6	Yes	Yes	Yes	Yes		Weather: Clear 80s
6-17-20	945	NP	7.58	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	950	7.60	0.5	6.93	25.2	11730	3.8	-76.4	86.5	Orange Tint/Cloudy	*Low-flow groundwater sample:*
	953	7.60	1.0	6.93	24.8	11720	3.3	-75.3	71.3	↓	(A) peristaltic pump w/ ded tubing
	955	7.60	1.5	6.94	24.8	11690	3.1	-75.1	60.7	↓	B) ded bladder pump
	957	7.60	2.0	6.95	24.7	11640	2.9	-74.9	46.8	sl. cloudy	C) non-ded bladder pump; or
	1000	7.60	2.5	6.96	24.6	11690	2.8	-73.2	43.8	↓	*Standard groundwater sample:*
	1002	7.60	3.0	6.96	24.8	11640	2.8	-74.3	41.5	↓	D) bailer due to limited column; or
	1005	7.60	3.5	6.96	24.7	11650	2.8	-76.3	39.4	↓	E) recovery well cycling sample
↓	1007	7.60	4.0	6.96	24.7	11660	2.8	-77.8	37.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6-17-20	1010	OCD-5	7.60	6.96	24.7	11660	2.8	-77.8	37.8	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-87
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (60)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1430	NP	7.99	0.00	20.39	15.1	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
↓	1520	NP	7.99	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1525	8.15	0.5	7.37	23.8	11,830	2.2	-78.2	9.1	colorless, clear	*Low-flow groundwater sample:*
↓	1528	8.19	1.0	7.32	22.3	11,760	1.7	-65.1	7.6	↓	(A) peristaltic pump w/ ded tubing
	1530	8.23	1.5	7.28	21.9	11,690	1.5	-60.4	5.9		B) ded bladder pump
	1533	8.26	2.0	7.25	21.6	11,640	1.4	-57.9	4.8		C) non-ded bladder pump; or
	1535	8.29	2.5	7.22	21.4	11,620	1.3	-55.3	4.4		*Standard groundwater sample:*
	1538	8.32	3.0	7.21	21.3	11,590	1.2	-52.7	3.6		D) bailer due to limited column; or
	1540	8.35	3.5	7.20	21.2	11,580	1.2	-51.0	3.2		E) recovery well cycling sample
↓	1543	8.38	4.0	7.19	21.2	11,570	1.1	-50.3	2.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1545	MW-87	8.38	7.19	21.2	11,570	1.1	-50.3	2.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18A
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (61)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1440	NP	8.41	0.00	22.58	17.9	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
↓	1605	NP	8.91	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1610	8.63	0.5	7.33	23.1	15,810	2.7	-175.4	6.9	colorless, clear	*Low-flow groundwater sample:*
↓	1613	8.70	1.0	7.29	20.9	15,700	2.0	-179.9	4.7	↓	(A) peristaltic pump w/ ded tubing
	1615	8.76	1.5	7.27	20.1	15,630	1.7	-182.3	3.9		B) ded bladder pump
	1618	8.80	2.0	7.24	19.8	15,590	1.5	-185.1	3.2		C) non-ded bladder pump; or
	1620	8.83	2.5	7.20	19.6	15,560	1.4	-187.0	2.4		*Standard groundwater sample:*
	1623	8.89	3.0	7.18	19.5	15,540	1.2	-188.3	2.1		D) bailer due to limited column; or
	1625	8.92	3.5	7.16	19.5	15,536	1.1	-189.2	1.9		E) recovery well cycling sample
↓	1628	8.95	4.0	7.15	19.4	15,510	1.1	-189.8	1.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1630	MW-18A	8.95	7.15	19.4	15,510	1.1	-189.8	1.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18B
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (62)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1445	NP	8.42	0.00	50.59	45.6	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-18B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18T
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BZH

(63)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1450	NP	8.53	0.00	50.57	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; o:
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-18T								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-70
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (64)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1500	NP	8.02	0.00	22.05	16.8	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
↓	1735	NP	8.02	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1740	8.09	0.5	7.22	23.3	6810	2.7	-106.3	17.2	Colorless, clear	*Low-flow groundwater sample:*
↓	1743	8.09	1.0	7.17	21.6	6490	2.4	-103.9	12.1	↓	(A) peristaltic pump w/ ded tubing
	1745	8.09	1.5	7.14	21.2	6270	2.2	-102.5	10.7		B) ded bladder pump
	1748	8.09	2.0	7.12	21.0	6110	2.1	-100.3	9.9		C) non-ded bladder pump; or
	1750	8.09	2.5	7.11	20.8	6040	2.0	-99.6	9.6		*Standard groundwater sample:*
	1753	8.09	3.0	7.10	20.7	6000	2.0	-97.2	9.0		D) bailer due to limited column; or
	1755	8.09	3.5	7.10	20.6	5980	1.9	-96.0	8.7		E) recovery well cycling sample
↓	1758	8.09	4.0	7.09	20.5	5970	1.9	-94.8	8.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1800	MW-70	8.09	7.09	20.5	5970	1.9	-94.8	8.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+EB-EP-02 (same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-124
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (65)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1510	NP	8.92	0.00	22.00	17.0	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
↓	1645	NP	8.92	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1650	8.97	0.5	7.22	22.3	11,010	2.3	-127.8	87.2	cloudy, orange algae	Low-flow groundwater sample:
↓	1653	8.97	1.0	7.15	20.4	10,560	1.9	-120.2	67.9	particles	(A) peristaltic pump w/ ded tubing
	1655	8.97	1.5	7.12	19.8	10,420	1.7	-119.6	44.6	↓	B) ded bladder pump
	1658	8.97	2.0	7.11	19.4	10,340	1.6	-118.8	31.7		C) non-ded bladder pump; or
	1700	8.97	2.5	7.10	19.2	10,300	1.5	-117.3	23.6	clear, colorless w/	Standard groundwater sample:
	1703	8.97	3.0	7.10	19.0	10,270	1.5	-119.6	21.9	orange algae particles	D) bailer due to limited column; or
	1705	8.97	3.5	7.10	19.0	10,250	1.4	-121.4	20.7	↓	E) recovery well cycling sample
↓	1708	8.97	4.0	7.09	18.9	10,240	1.4	-122.9	20.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1710	MW-124	8.97	7.09	18.9	10,240	1.4	-122.9	20.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1725	EB-EP-02	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Driveway near bldg. A/C unit

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-52
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (66)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1120	NP	20.83	0.00	34.67	29.5	Yes	Yes	Yes	Yes		Weather: Pt. cloudy, 90s
6-17-20	1255	NP	20.84	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1300	20.87	0.5	7.25	24.4	2700	2.4	-229.6	9.2	colorless, clear	*Low-flow groundwater sample:*
	1303	20.87	1.0	7.14	22.6	2660	1.9	-221.2	8.1		(A) peristaltic pump w/ ded tubing
	1305	20.87	1.5	7.09	22.0	2640	1.7	-216.1	7.4		B) ded bladder pump
	1308	20.87	2.0	7.04	21.7	2610	1.4	-210.9	6.3		C) non-ded bladder pump; or
	1310	20.87	2.5	7.01	21.4	2590	1.3	-207.4	5.8		*Standard groundwater sample:*
	1313	20.87	3.0	6.99	21.3	2580	1.3	-205.2	5.0		D) bailer due to limited column; or
	1315	20.87	3.5	6.98	21.2	2570	1.4	-203.9	4.7		E) recovery well cycling sample
	1318	20.87	4.0	6.97	21.2	2560	1.4	-202.4	4.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1320	MW-52	20.87	6.99	21.2	2560	1.4	-202.4	4.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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E. side of blue bldg.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-109
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BZH (67)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1115	NP	18.89	0.00	29.48	25.5	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
6-17-20	1210	NP	18.91	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1215	19.07	0.5	7.33	25.6	2570	2.0	-328.4	11.2	colorless, clear,	*Low-flow groundwater sample:*
	1218	19.12	1.0	7.27	24.3	2560	1.6	-339.2	9.8	odor	(A) peristaltic pump w/ ded tubing
	1220	19.15	1.5	7.21	23.6	2530	1.3	-353.1	9.2		B) ded bladder pump
	1223	19.18	2.0	7.14	23.2	2500	1.1	-368.2	8.1		C) non-ded bladder pump; or
	1225	19.20	2.5	7.09	23.0	2480	1.0	-374.0	7.0		*Standard groundwater sample:*
	1228	19.21	3.0	7.07	22.8	2470	0.9	-378.8	6.4		D) bailer due to limited column; or
	1230	19.22	3.5	7.05	22.7	2460	0.8	-381.3	5.9		E) recovery well cycling sample
	1233	19.22	4.0	7.04	22.6	2460	0.8	-383.5	5.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1235	MW-109	19.22	7.04	22.6	2460	0.8	-383.5	5.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW - 110
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (68)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1110	NP	15.45	0.00	29.74	24.7	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
6-17-20	1125	NP	15.47	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-17-20	1130	15.61	0.5	7.23	24.0	2080	2.2	-129.4	17.6	colorless, clear,	*Low-flow groundwater sample:*
↓	1133	15.66	1.0	7.21	22.2	1864	1.9	-128.2	14.9	odor	(A) peristaltic pump w/ ded tubing
↓	1135	15.68	1.5	7.20	21.6	1786	1.7	-126.9	12.2	↓	B) ded bladder pump
↓	1138	15.69	2.0	7.20	21.4	1735	1.6	-123.5	9.8	↓	C) non-ded bladder pump; or
↓	1140	15.70	2.5	7.19	21.3	1717	1.5	-121.9	9.4	↓	*Standard groundwater sample:*
↓	1143	15.70	3.0	7.19	21.2	1709	1.4	-119.6	8.7	↓	D) bailer due to limited column; or
↓	1145	15.70	3.5	7.19	21.2	1704	1.4	-117.2	8.3	↓	E) recovery well cycling sample
↓	1148	15.70	4.0	7.18	21.2	1701	1.3	-115.8	7.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-17-20	1150	MW-110	15.70	7.18	21.2	1701	1.3	-115.8	7.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-13
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (69)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-22	1155	NP	9.12	0.00	21.10	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-13								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-69
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (70)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1150	NP	7.79	0.00	22.51	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-69								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-12
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BZH (71)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1145	NP	6.52	0.00	17.93	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-12								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-24
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located E. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (72)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1205	NP	8.61	0.00	23.51	NS	Yes	Yes	Issue	Yes		Weather: Sunny, 80s
									↳ Broken hasp/hinge. Well has a lock but will not securely close.			

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-24								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-14
Event: 1H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (73)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1210	NP	7.28	0.00	>11.81	NS	Yes	Yes (*Issue)	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

* Blockage @ 11.81' TOC, Probe will not pass.

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
		MW-14								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube; Sample via part of RW is active

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-12R
Event: 1H20
Area of Concern: REST

Completion: At-Grade __ Upright __ Above-grade Vault ✓
Casing Diam.: 2-in __ 4-in __ Other 12-in
Casing Material: PVC ✓ SS __ Other __

(RW recently off due to water rights issue)

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (74)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1540	NP	23.55	0.00	NM	Top of Pump	Yes	Yes	Yes	Yes		Weather: Sunny 90's
6.17.20	1510	NP	23.57	0.00		(if pump not operating)						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1515	23.58	0.5	6.92	25.4	2750	1.3	-275.3	10.5	Clear / Colorless	*Low-flow groundwater sample:*
	1517	23.59	1.0	6.90	25.4	2790	1.1	-279.1	9.7		(A) peristaltic pump w/ ded tubing
	1520	23.59	1.5	6.89	25.3	2810	1.0	-283.4	9.1		B) ded bladder pump
	1522	23.59	2.0	6.88	25.3	2840	0.9	-285.6	8.8		C) non-ded bladder pump; or
	1525	23.59	2.5	6.86	25.3	2850	0.9	-286.9	8.7		*Standard groundwater sample:*
	1527	23.59	3.0	6.85	25.2	2870	0.8	-288.2	7.2		D) bailer due to limited column; or
	1530	23.59	3.5	6.85	25.1	2880	0.8	-288.5	7.0	or	(E) recovery well cycling sample (if recovery pump on
	1532	23.59	4.0	6.84	25.1	2880	0.8	-289.3	6.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1535	RW-12R	23.59	6.84	25.1	2880	0.8	-289.3	6.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+Dup - Rest - 01 (same analyses)
+EB - Rest - 01 (same analyses)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-113
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB/BRA (75)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1544	NP	23.02	0.00	37.80	33.8	Yes	Yes	Yes	Yes		Weather: Cloudy, 100
6/17/20	1445	NP	23.01	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1450	23.04	0.5	6.79	24.6	2370	2.7	-123.9	6.8	colorless, clear,	*Low-flow groundwater sample:*
↓	1453	23.04	1.0	6.71	22.6	2340	2.2	-120.5	5.4	odor	(A) peristaltic pump w/ ded tubing
	1455	23.04	1.5	6.68	22.2	2330	2.0	-117.2	5.1	↓	B) ded bladder pump
	1458	23.04	2.0	6.67	21.6	2320	1.9	-115.8	4.7		C) non-ded bladder pump; or
	1500	23.04	2.5	6.67	21.4	2320	1.8	-112.1	4.1		*Standard groundwater sample:*
	1503	23.04	3.0	6.66	21.3	2310	1.7	-109.3	3.9		D) bailer due to limited column; or
	1505	23.04	3.5	6.65	21.2	2310	1.6	-107.8	3.6		E) recovery well cycling sample
↓	1508	23.04	4.0	6.65	21.2	2310	1.6	-106.4	3.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1510	MW-113	23.04	6.65	21.2	2310	1.6	-106.4	3.2	Per COC	Per COC	
↓												
	1200	Dup-Rest-01	23.04	6.65	21.2	2310	1.6	-106.4	3.2	same	same	
↓	1530	EB-Rest-01	NA						→	same	same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-8
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BJ (76)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1547	20.80	20.89	0.09	35.80	30.8	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not Sampled due to LNAPL							(A) peristaltic pump w/ ded tubing
			1.5	Presence >0.03'							B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-8								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-22
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Above-grade Vault ✓	Other 12-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials BA (77)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1549	24.64	30.33	5.69	NM	Sample part if RW active	Yes	Yes	Yes	Yes		Weather Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not sampled due to LNAPL presence ≥0.03'							A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-22								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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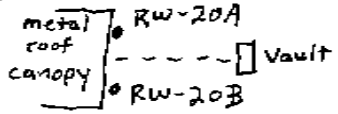
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Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-20A
Event: 1H20
Area of Concern: REST

Completion: At-Grade __ Upright __ Vault ✓
Casing Diam.: 2-in __ 4-in __ Other 6-in
Casing Material: PVC ✓ SS __ Other __



Hydrologic Monitoring
for TRC
Houston, Texas

(78)

Initials: BT

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1553	17.52	17.63	0.11	NM *	Sample Port	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

* Likely well base @ 21.98' per Navajo

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not Sampled			due	to	LNAPL		A) peristaltic pump w/ ded tubing
			1.5	presence		>0.03'					B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-20A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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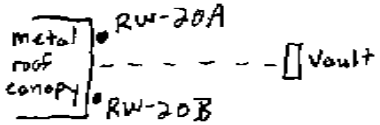
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Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-20B
Event: 1H20
Area of Concern: REST

Completion: At-Grade ___ Upright ___ Vault ✓
Casing Diam.: 2-in ___ 4-in ___ Other 6-in
Casing Material: PVC ✓ SS ___ Other ___



Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS (79)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1557	17.53	17.66	0.13	NM	Sample Part	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not sampled due to LNAPL presence ≥0.03'							A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-20B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged / labeled tube stored inside above-grade vault

Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-13R
Event: 1H20
Area of Concern: REST Above-grade

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other 12-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS (80)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1601	22.01	24.21	2.20	NM	30.0	YES	Yes	Yes	Yes		Weather: Sunny 90's
						or Sample	port, if	RW is active				

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not sampled due to LNAPL presence ≥0.03'							(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								or (E) recovery well cycling sample if RW is active
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-13R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-14R
Event: 1H20
Area of Concern: REST

Completion: At-Grade __ / Upright __ / Above-grade Vault ✓
Casing Diam.: 2-in __ / 4-in __ / Other 12-in
Casing Material: PVC ✓ / SS __ / Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (81)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1604	20.47	26.73	6.26	NM	Sample Port	Yes	Yes	Yes	YG		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not Sampled due to presence of LNAPL >0.03'							A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-14R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-133
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AD (82)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1607	19.72	20.18	0.46	37.64	27.9	Yes	Yes	Yes	Yes		Weather: Sunny 90°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5	Not sampled due to presence of LNAPL >0.03							*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-133								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+TB-Rest-01

+Dup-Rest-03 (same analyses)
+EB-Rest-03 (same analyses)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-134
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (83)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1610	NP	19.18	0.00	32.95	28.4	yes	yes	yes	yes		Weather: Sunny 90's
6.17.20	1315	NP	19.20	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1320	19.22	0.5	6.93	24.1	4240	3.6	51.3	8.8	Colorless / Clear	*Low-flow groundwater sample:*
↓	1322	19.22	1.0	6.92	24.0	4250	3.1	54.5	8.2	↓	(A) peristaltic pump w/ ded tubing
	1325	19.23	1.5	6.92	23.9	4240	2.4	59.6	7.3		B) ded bladder pump
	1327	19.23	2.0	6.91	23.9	4230	2.2	61.6	6.5		C) non-ded bladder pump; or
	1330	19.23	2.5	6.90	23.9	4230	2.1	63.2	6.1		*Standard groundwater sample:*
	1332	19.23	3.0	6.89	23.8	4220	2.0	64.1	4.8		D) bailer due to limited column; or
	1335	19.23	3.5	6.89	23.8	4210	2.0	64.9	3.2		E) recovery well cycling sample
↓	1337	19.23	4.0	6.88	23.7	4200	1.9	65.7	2.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1340	MW-134	19.23	6.88	23.7	4200	1.9	65.7	2.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
	1100	Dup-Rest-03	19.23	6.88	23.7	4200	1.9	65.7	2.7	Per COC	Per COC	
↓	1400	EB-Rest-03	NA						→	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-4798
Event: 1H20
Area of Concern: REST

Irrigation well
Inside green, block bldg.
No purge; sample port (faucet)

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (84)

Well Inspection Information (screen: 840-850)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/17/20	1605	NM	NM	NM	NM	NM	NA	NA	NA	Yes		Weather: Sunny 100's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Colorless, clear	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1605	RA-4798 (4798)	NM	7.21	20.2	2196	3.9	-58.2	1.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-4196
Event: 1H20
Area of Concern: REST

Irrigation well
Inside green, block bldg.
No purge; Sample port (faucet)

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information (Screen: 280-292)

Initials: BJ (85)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/17/20	1550	NM	NM	NM	NM	NM	NA	NA	NA	Yes		Weather: Sunny 100s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Colorless, clear	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ Sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1550	RA-4196	NM	7.18	22.6	2238	3.2	-76.8	1.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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DO NOT ADDRESS
Removed from Program by Navajo, 4-13-15

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-1227
Event: 1H20
Area of Concern: REST

Irrigation well
Removed from Program

Hydrologic Monitoring
for TRC
Houston, Texas

(86)

Initials:

Well Inspection Information (Screen: 194-246)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/17/20												Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

DO NOT ADDRESS

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
	RA-1227									Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-3156
Event: 1H20
Area of Concern: REST

Irrigation well
No purge; sample port

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS (87)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/17/20	1520	NM	NM	NM	NM	NA	NA	NA	NA	Yes		Weather: Hazy cldy 100's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Black / cloudy	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1520	RA-3156	NM	7.00	20.7	1,703	2.3	-58.4	>200	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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E. of MW-101; across street

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-313
Event: 1H20
Area of Concern: REST

[Irrigation and water-supply purpose, per Navajo]

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS / RM (88)

Well Inspection Information (Screen: 904-1157)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/17/20	850	NM	NM	NM	NM	NA	NA	NA	NA	Yes		Weather Sunny 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Clear	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port						B) ded bladder pump
			2.0		(By Tank 465)						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	855	RA-313	NM	7.07	22.9	1789	2.9	53.7	2.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Pecan Grove)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-7
Event: H2O
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (89)

Well Inspection Information

Date	Time	* Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1305	NP	19.71	0.00	34.83	30.6	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

* unmeasurable trace on probe (dark goldtint)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1310	19.72	0.5	6.93	25.0	3395	3.5	-98.4	3.1	Colorless, clear	*Low-flow groundwater sample:*
	1313	19.72	1.0	6.88	23.3	7338	2.9	-113.7	3.0	" (Strong HC odor)	A) peristaltic pump w/ ded tubing
	1315	19.72	1.5	6.86	22.1	3298	2.6	-120.6	2.8	" "	B) ded bladder pump
	1318	19.72	2.0	6.84	21.9	3289	2.4	-123.5	2.7	" "	C) non-ded bladder pump; or
	1320	19.72	2.5	6.83	21.7	3280	2.3	-125.4	2.6	" "	*Standard groundwater sample:*
	1323	19.72	3.0	6.83	21.6	3274	2.3	-126.7	2.5	" "	D) bailer due to limited column; or
	1325	19.72	3.5	6.82	21.6	3269	2.2	-127.3	2.5	" "	E) recovery well cycling sample
↓	1328	19.72	4.0	6.81	21.5	3265	2.2	-128.4	2.4	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6/16/20	1330	KWB-7	19.72	6.81	21.5	3265	2.2	-128.4	2.4	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-135
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: JS (90)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1730	NP	30.71	0.00	65.55	50.0	Yes	Yes	Yes	Yes		Weather: Sunny 90's
6/17/20	1355	NP	30.68	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1400	30.72	0.5	6.86	22.9	5399	4.4	75.8	13.8	Colorless, clear	*Low-flow groundwater sample:*
	1403	30.72	1.0	6.83	21.3	5436	3.3	80.2	11.6	" "	A) peristaltic pump w/ ded tubing
	1405	30.72	1.5	6.82	20.9	5449	2.9	82.3	10.4	" "	(B) ded bladder pump
	1408	30.72	2.0	6.82	20.7	5453	2.6	83.1	10.1	" "	C) non-ded bladder pump; or
	1410	30.72	2.5	6.82	20.6	5459	2.4	83.5	9.6	" "	*Standard groundwater sample:*
	1413	30.72	3.0	6.81	20.6	5462	2.3	84.1	9.4	" "	D) bailer due to limited column; or
	1415	30.72	3.5	6.81	20.5	5468	2.2	84.3	9.3	" "	E) recovery well cycling sample
↓	1418	30.72	4.0	6.81	20.5	5471	2.2	84.6	9.2	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1420	MW-135	30.72	6.81	20.5	5471	2.2	84.6	9.2	Per COC	Per COC	Lab: Pace National, ML Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-20
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RSM (91)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1621	NP	17.08	0.00	26.66	21.9	Yes	Yes	Yes	Yes		Weather: Sunny 90's
6/17/20	1210	NP	17.10	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1215	17.13	0.5	7.07	23.7	4140	3.1	47.3	10.3	Clear/Colorless	*Low-flow groundwater sample:*
	1217	17.15	1.0	7.04	23.7	4100	2.7	52.5	9.1		(A) peristaltic pump w/ ded tubing
	1220	17.16	1.5	7.01	23.6	4080	2.6	56.8	8.5		B) ded bladder pump
	1222	17.16	2.0	6.99	23.6	4030	2.4	58.1	8.2		C) non-ded bladder pump; or
	1225	17.16	2.5	6.98	23.5	4010	2.3	59.9	7.7		*Standard groundwater sample:*
	1227	17.17	3.0	6.97	23.5	4000	2.1	61.2	5.4		D) bailer due to limited column; or
	1230	17.17	3.5	6.97	23.5	3990	2.0	62.4	3.9		E) recovery well cycling sample
	1232	17.17	4.0	6.96	23.5	3990	2.0	63.1	3.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1235	MW-20	17.17	6.96	23.5	3990	2.0	63.1	3.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: NP-3
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(92)

Initials: BJ

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1618	NP	19.02	0.00	21.59	NS	Yes	Yes	Yes	Yes		Weather: Sunny 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-3								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-4
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BJ (93)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1615	NP	31.43	0.00	36.98	NS	yes	yes	yes	yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-2
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (94)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1625	NP	19.23	0.00	21.49	NS	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-1
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (95)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1630	NP	18.18	0.00	21.88	19.6	Yes	Yes	Yes	Yes		Weather: Sunny 80's
6/17/20	915	NP	18.14	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	920	18.15	0.5	6.95	24.6	4171	2.4	-31.6	3.4	Colorless, clear	*Low-flow groundwater sample:*
	923	18.15	1.0	6.79	23.1	4150	2.3	-12.4	2.8	" "	(A) peristaltic pump w/ ded tubing
	925	18.15	1.5	6.74	22.8	4134	2.3	+05.8	2.3	" "	B) ded bladder pump
	928	18.15	2.0	6.71	22.6	4122	2.2	10.3	2.0	" "	C) non-ded bladder pump; or
	930	18.15	2.5	6.68	22.5	4103	2.2	16.2	1.8	" "	*Standard groundwater sample:*
	933	18.15	3.0	6.68	22.5	4096	2.1	18.3	1.6	" "	D) bailer due to limited column; or
	935	18.15	3.5	6.67	22.5	4093	2.0	18.9	1.6	" "	E) recovery well cycling sample
	938	18.15	4.0	6.67	22.5	4090	2.0	19.1	1.5	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	940	NP-1	18.15	6.67	22.5	4090	2.0	19.1	1.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-6
Event: 1420
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BT (96)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1634	NP	14.57	0.00	20.35	15.4	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-6								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-8
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RSM (97)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
5.16.20	1800	ND	15.87	0.00	23.30	18.3	yes	yes	yes	yes		Weather: Sunny 90's
6.17.20	1105	ND	15.89	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1110	15.90	0.5	6.99	23.6	4550	3.0	38.2	6.3	Clear / colorless	*Low-flow groundwater sample:*
	1112	15.90	1.0	6.98	23.5	4590	2.8	40.5	6.1		(A) peristaltic pump w/ ded tubing
	1115	15.91	1.5	6.98	23.5	4630	2.5	41.7	5.7		B) ded bladder pump
	1117	15.91	2.0	6.97	23.4	4680	2.3	42.3	5.7		C) non-ded bladder pump; or
	1120	15.91	2.5	6.96	23.4	4700	2.2	42.9	4.8		*Standard groundwater sample:*
	1122	15.91	3.0	6.96	23.4	4710	2.2	43.4	4.3		D) bailer due to limited column; or
	1125	15.91	3.5	6.95	23.3	4710	2.2	44.5	3.6		E) recovery well cycling sample
	1127	15.91	4.0	6.94	23.3	4720	2.1	45.1	3.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6.17.20	1130	MW-8	15.91	6.94	23.3	4720	2.1	45.1	3.4	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank - TMD-01

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-21
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (98)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1752	NP	15.21	0.00	25.12	19.9	yes	yes	yes	yes		Weather: Sunny, 90's
6.17.20	1010	NP	15.22	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1015	15.31	0.5	7.68	23.9	4900	2.4	25.3	5.4	Clear / Colorless	*Low-flow groundwater sample:*
	1017	15.32	1.0	7.05	23.9	4930	2.0	28.4	5.6		(A) peristaltic pump w/ ded tubing
	1020	15.32	1.5	7.04	23.8	4920	1.9	28.9	5.1		B) ded bladder pump
	1022	15.32	2.0	7.03	23.7	4930	1.8	29.1	4.3		C) non-ded bladder pump; or
	1025	15.32	2.5	7.03	23.7	4930	1.8	29.7	4.0		*Standard groundwater sample:*
	1027	15.33	3.0	7.02	23.7	4940	1.8	30.5	3.7		D) bailer due to limited column; or
	1030	15.33	3.5	7.01	23.6	4940	1.7	31.0	3.1		E) recovery well cycling sample
↓	1032	15.33	4.0	7.00	23.6	4950	1.7	31.8	2.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1035	MW-21	15.33	7.00	23.6	4950	1.7	31.8	2.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-9
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (99)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
8/16/20	1735	NP	16.43	0.00	22.25	NS	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-71
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: KB (100)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1740	NP	16.63	0.00	21.67	16.9	Yes	Yes	Yes	Yes		Weather: Sunny 90s
6/17/20	1350	NP	16.61	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1355	16.63	0.5	7.23	22.5	5964	2.9	-25.6	6.2	colorless, clear	*Low-flow groundwater sample:*
	1358	16.63	1.0	7.10	21.6	5986	2.6	-31.7	4.8	" "	(A) peristaltic pump w/ ded tubing
	1400	16.63	1.5	7.03	20.8	6,013	2.2	-35.8	2.7	" "	B) ded bladder pump
	1403	16.63	2.0	7.00	20.6	6,026	1.9	-37.6	2.2	" "	C) non-ded bladder pump; or
	1405	16.63	2.5	6.98	20.5	6,041	1.7	-39.3	1.9	" "	*Standard groundwater sample:*
	1408	16.63	3.0	6.96	20.5	6,049	1.6	-39.8	1.7	" "	D) bailer due to limited column; or
	1410	16.63	3.5	6.95	20.4	6,054	1.6	-40.2	1.7	" "	E) recovery well cycling sample
↓	1413	16.63	4.0	6.94	20.4	6,059	1.5	-40.4	1.6	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1415	MW-71	16.63	6.94	20.4	6,059	1.5	-40.4	1.6	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-68
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (101)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1815	NP	21.09	0.00	26.52	23.5	Yes	Yes	Yes	Yes		Weather: Sunny 80's
6.17.20	915	NP	21.10	0.00								

Well Purging Record

Date	Time	Depth to Water: (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	920	21.11	0.5	7.08	24.2	2820	2.3	-141.3	6.7	clear/colorless	*Low-flow groundwater sample:*
	922	21.12	1.0	7.05	24.0	2820	2.1	-120.5	6.2		(A) peristaltic pump w/ ded tubing
	925	21.12	1.5	7.02	23.9	2810	1.9	-101.2	5.8		B) ded bladder pump
	927	21.12	2.0	7.00	23.9	2800	1.7	-92.7	5.7		C) non-ded bladder pump; or
	930	21.13	2.5	6.98	23.9	2800	1.6	-85.9	5.1		*Standard groundwater sample:*
	932	21.13	3.0	6.98	23.8	2790	1.4	-83.4	4.5		D) bailer due to limited column; or
	935	21.13	3.5	6.97	23.8	2780	1.4	-82.2	4.0		E) recovery well cycling sample
	937	21.13	4.0	6.96	23.8	2780	1.3	-81.9	3.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	940	MW-68	21.13	6.96	23.8	2780	1.3	-81.9	3.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-27
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS (102)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1708	NP	18.93	0.00	30.28	25.0	Yes	Yes	Yes	Yes		Weather: Sunny 90's
6/17/20	1300	NT	18.94	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1305	18.99	0.5	7.13	23.8	2011	3.2	-13.5	9.2	Colorless, Clear	*Low-flow groundwater sample:*
	1308	18.99	1.0	7.02	23.4	1987	2.5	-02.4	6.4	" "	(A) peristaltic pump w/ ded tubing
	1310	18.99	1.5	6.96	23.1	1,971	2.2	+4.8	5.1	" "	B) ded bladder pump
	1313	18.99	2.0	6.93	22.9	1,965	2.0	13.6	4.4	" "	C) non-ded bladder pump; or
	1315	18.99	2.5	6.92	22.7	1,961	1.9	15.8	4.1	" "	*Standard groundwater sample:*
	1318	18.99	3.0	6.91	22.7	1,957	1.8	17.2	3.9	" "	D) bailer due to limited column; or
	1320	18.99	3.5	6.91	22.6	1,952	1.8	17.8	3.7	" "	E) recovery well cycling sample
↓	1323	18.99	4.0	6.90	22.6	1,950	1.7	18.0	3.6	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1325	MW-27	18.99	6.90	22.6	1,950	1.7	18.0	3.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01" or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-89
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (103)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1703	NP	12.62	0.00	20.28	15.2	Yes	Yes	Yes	Yes		Weather: Sunny 80's
6/17/20	1015	NP	12.62	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1020	12.66	0.5	7.04	20.4	3,543	3.4	76.2	9.7	Colorless, clear	*Low-flow groundwater sample:*
	1023	12.66	1.0	6.93	20.3	3,476	3.1	71.3	9.3	" "	(A) peristaltic pump w/ ded tubing
	1025	12.67	1.5	6.91	20.2	3,438	2.8	68.4	5.9	" "	B) ded bladder pump
	1028	12.67	2.0	6.90	20.1	3,402	2.6	66.2	5.1	" "	C) non-ded bladder pump; or
	1030	12.67	2.5	6.90	20.0	3,391	2.5	65.9	4.7	" "	*Standard groundwater sample:*
	1033	12.67	3.0	6.89	19.9	3,387	2.4	65.4	4.4	" "	D) bailer due to limited column; or
	1035	12.67	3.5	6.89	19.9	3,384	2.4	65.1	4.2	" "	E) recovery well cycling sample
↓	1038	12.67	4.0	6.89	19.9	3,381	2.3	64.7	4.1	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1040	MW-89	12.67	6.89	19.9	3,381	2.3	64.7	4.1	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-16
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (104)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1711	NP	9.66	0.00	21.24	16.2	Yes	Yes	Yes	Yes		Weather: Sunny, 80's
6/17/20	1110	NP	9.64	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1115	9.64	0.5	7.15	20.3	4905	2.6	81.4	10.7	Colorless, Clear	*Low-flow groundwater sample:*
	1118	9.64	1.0	6.99	19.4	4,880	2.0	82.7	9.5	" "	(A) peristaltic pump w/ ded tubing
	1120	9.64	1.5	6.94	19.0	4,864	1.7	83.1	5.8	" "	B) ded bladder pump
	1123	9.64	2.0	6.91	18.8	4,849	1.5	83.5	4.2	" "	C) non-ded bladder pump; or
	1125	9.64	2.5	6.88	18.7	4,842	1.4	83.9	3.3	" "	*Standard groundwater sample:*
	1128	9.64	3.0	6.87	18.6	4,839	1.4	84.1	3.0	" "	D) bailer due to limited column; or
	1130	9.64	3.5	6.86	18.6	4,835	1.3	84.5	2.8	" "	E) recovery well cycling sample
	1133	9.64	4.0	6.86	18.5	4,833	1.3	84.6	2.7	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1135	MW-16	9.64	6.86	18.5	4,833	1.3	84.6	2.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-26
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BM (105)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1720	NP	7.76	0.00	27.58	22.6	Yes	Yes	Yes	Yes		Weather: Sunny 90's
6/17/20	1205	NP	7.76	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1210	7.81	0.5	7.37	20.4	6203	1.8	-58.2	5.9	Colorless, clear	*Low-flow groundwater sample:*
	1213	7.84	1.0	7.11	19.8	6,253	1.6	-41.6	3.6	" "	(A) peristaltic pump w/ ded tubing
	1215	7.85	1.5	7.07	19.4	6,261	1.4	-36.8	2.9	" "	B) ded bladder pump
	1218	7.85	2.0	7.04	19.2	6,270	1.2	-35.2	2.4	" "	C) non-ded bladder pump; or
	1220	7.85	2.5	7.01	19.1	6,279	0.9	-26.4	1.9	" "	*Standard groundwater sample:*
	1223	7.85	3.0	6.99	19.0	6,284	0.8	-23.8	1.7	" "	D) bailer due to limited column; or
	1225	7.85	3.5	6.97	18.9	6,287	0.7	-22.9	1.6	" "	E) recovery well cycling sample
	1228	7.85	4.0	6.96	18.9	6,290	0.7	-22.7	1.6	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1230	MW-26	7.85	6.96	18.9	6,290	0.7	-22.7	1.6	Per COC	Per COC	Lab: Pace National, ML Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Pecan grove access from 82 gate)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-11A
Event: 1420
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BJJ (106)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1400	NP	20.14	0.00	42.27	37.0	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1405	20.16	0.5	6.92	23.4	4,180	2.2	-63.8	4.0	colorless, clear (HF odor)	*Low-flow groundwater sample:*
	1408	20.16	1.0	6.86	22.9	4,034	1.6	-79.4	3.1	" " "	(A) peristaltic pump w/ ded tubing
	1410	20.16	1.5	6.83	22.6	3,993	1.3	-84.8	2.6	" " "	B) ded bladder pump
	1413	20.16	2.0	6.81	22.5	3,985	1.1	-87.2	2.3	" " "	C) non-ded bladder pump; or
	1415	20.16	2.5	6.80	22.4	3,981	0.9	-89.3	2.1	" " "	*Standard groundwater sample:*
	1418	20.16	3.0	6.80	22.4	3,978	0.8	-90.1	2.0	" " "	D) bailer due to limited column; or
	1420	20.16	3.5	6.79	22.4	3,976	0.7	-90.8	2.0	" " "	E) recovery well cycling sample
	1423	20.16	4.0	6.78	22.3	3,974	0.7	-91.3	1.9	" " "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1425	KWB-11A	20.16	6.78	22.3	3,974	0.7	-91.3	1.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Pecan grove access from 82 gate)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-11B
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (107)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1450	NP	20.88	0.00	72.45	62.2	Yes	Yes	Yes	Yes	*	Weather: 90's Sunny

* (Severely Cracked pad same as last events, needs new pad)

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1455	20.92	0.5	7.24	23.4	3055	2.9	-53.9	4.7	Colorless, clear	*Low-flow groundwater sample:*
	1458	20.94	1.0	7.09	22.8	3,051	2.1	-41.2	4.1	" "	(A) peristaltic pump w/ ded tubing
	1500	20.95	1.5	7.01	22.3	3,046	1.7	-36.3	3.5	" "	B) ded bladder pump
	1503	20.95	2.0	6.96	22.1	3,041	1.5	-32.4	2.9	" "	C) non-ded bladder pump; or
	1505	20.95	2.5	6.93	21.9	3,039	1.3	-30.2	2.4	" "	*Standard groundwater sample:*
	1508	20.95	3.0	6.90	21.8	3,037	1.2	-29.6	2.2	" "	D) bailer due to limited column; or
	1510	20.95	3.5	6.88	21.7	3,036	1.1	-29.1	2.1	" "	E) recovery well cycling sample
	1513	20.95	4.0	6.87	21.7	3,034	1.1	-28.7	2.1	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6/16/20	1515	KWB-11B	20.95	6.87	21.7	3,034	1.1	-28.7	2.1	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Removed from Program by Navajo, 4-13-15

Monitoring Well Purging and Sampling Record (Former Jack Joy 575-365-6042)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-3AR
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(108)

Initials:

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
												Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		DO NOT ADDRESS						A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
										Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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ATV - S. Ro Field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-115
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (109)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	855	NP	16.18	0.00	27.50	19.8	Yes	Yes	Yes	Yes		Weather: 70's Sunny

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	900	16.21	0.5	6.94	20.5	4255	4.1	-29.8	2.0	colorless, clear	*Low-flow groundwater sample:*
	903	16.22	1.0	6.89	19.9	4181	3.5	-4.7	1.9	" "	(A) peristaltic pump w/ ded tubing
	905	16.22	1.5	6.86	19.8	4096	3.2	9.2	1.8	" "	B) ded bladder pump
	908	16.22	2.0	6.84	19.6	4054	3.0	22.8	1.8	" "	C) non-ded bladder pump; or
	910	16.22	2.5	6.83	19.5	4049	2.9	25.6	1.6	" "	*Standard groundwater sample:*
	913	16.22	3.0	6.83	19.5	4040	2.9	26.7	1.5	" "	D) bailer due to limited column; or
	915	16.22	3.5	6.82	19.4	4032	2.8	27.2	1.4	" "	E) recovery well cycling sample
	918	16.22	4.0	6.81	19.3	4027	2.8	27.5	1.4	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	920	MW-115	16.22	6.81	19.3	4027	2.8	27.5	1.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
		RO Fields Program (2020)										
	920	MW-115	16.22	6.81	19.3	4027	2.8	27.5	1.4	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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ATV - S. RO Field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-114
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (110)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	955	NP	15.98	0.00	38.25	30.5	Yes	Yes	Yes	Yes		Weather: Pt ly cloudy 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Curr. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1000	16.01	0.5	6.85	22.8	3362	3.9	38.4	4.3	Colorless, clear	*Low-flow groundwater sample:*
	1003	16.01	1.0	6.76	22.4	3334	3.1	47.9	3.4	" "	(A) peristaltic pump w/ ded tubing
	1005	16.01	1.5	6.73	22.1	3326	2.6	51.2	2.7	" "	B) ded bladder pump
	1008	16.01	2.0	6.71	22.0	3317	2.3	53.8	2.3	" "	C) non-ded bladder pump; or
	1010	16.01	2.5	6.70	22.0	3314	2.0	55.0	1.9	" "	*Standard groundwater sample:*
	1013	16.01	3.0	6.69	21.9	3312	1.8	55.6	1.7	" "	D) bailer due to limited column; or
	1015	16.01	3.5	6.69	21.9	3309	1.7	56.2	1.7	" "	E) recovery well cycling sample
↓	1018	16.01	4.0	6.68	21.9	3307	1.7	57.1	1.6	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1020	MW-114	16.01	6.68	21.9	3307	1.7	57.1	1.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
	...	RO Fields Program (2@20)										
↓	1020	MW-114	16.01	6.68	21.9	3307	1.7	57.1	1.6	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03"; if LNAPL thickness is measured at 0.01" or 0.02", remove LNAPL, and collect groundwater sample

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ATV - S. RO Field (mesquite!!)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-125
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BTB (111)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1030	NP	19.17	0.00	28.31	23.5	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1035	19.22	0.5	6.93	23.3	4263	3.8	18.4	10.2	colorless; clear	*Low-flow groundwater sample:*
	1037	19.24	1.0	6.89	22.4	4239	3.2	24.6	7.8		(A) peristaltic pump w/ ded tubing
	1040	19.24	1.5	6.87	21.7	4198	2.8	32.3	6.3		B) ded bladder pump
	1042	19.24	2.0	6.84	21.3	4190	2.5	36.8	5.0		C) non-ded bladder pump; or
	1045	19.24	2.5	6.83	21.1	4186	2.3	40.6	4.1		*Standard groundwater sample:*
	1047	19.24	3.0	6.82	21.6	4183	2.2	41.9	3.9		D) bailer due to limited column; or
	1050	19.24	3.5	6.81	21.0	4181	2.1	42.6	3.9		E) recovery well cycling sample
	1052	19.24	4.0	6.81	20.9	4180	2.1	42.8	3.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1055	MW-125	19.24	6.81	20.9	4180	2.1	42.8	3.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
		RO Fields Program (2020)										
	1055	MW-125	19.24	6.81	20.9	4180	2.1	42.8	3.8	per COC	per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-117
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: DSD (112)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1050	NP	14.65	0.00	27.22	19.7	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1055	14.66	0.5	6.77	21.1	3430	3.5	67.1	30.6	Colorless/sl cloudy	Low-flow groundwater sample:
	1058	14.66	1.0	6.68	20.8	3410	3.1	70.2	29.3		(A) peristaltic pump w/ ded tubing
	1100	14.66	1.5	6.62	20.7	3350	3.1	72.1	26.8		B) ded bladder pump
	1103	14.66	2.0	6.57	20.6	3310	3.0	73.4	24.5		C) non-ded bladder pump; or
	1105	14.66	2.5	6.55	20.5	3260	2.9	74.2	23.1		Standard groundwater sample:
	1107	14.66	3.0	6.53	20.5	3240	2.8	75.1	21.7	Colorless/clear	D) bailer due to limited column; or
	1110	14.66	3.5	6.51	20.4	3230	2.7	75.7	20.7		E) recovery well cycling sample
	1113	14.66	4.0	6.48	20.3	3220	2.6	76.1	21.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1115	MW-117	14.66	6.48	20.3	3220	2.6	76.1	21.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
		RO Fields Program (2020)										
		MW-117								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-118
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSO (113)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	955	NP	17.76	0.00	28.29	21.0	Yes	Yes	Yes	Yes		Weather: CLEAR 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1000	17.92	0.5	6.55	19.3	3350	4.4	71.2	41.6	colorless/cloudy	Low-flow groundwater sample:
	1003	17.98	1.0	6.72	18.9	3390	4.3	72.8	37.5		(A) peristaltic pump w/ ded tubing
	1005	18.03	1.5	6.66	18.6	3420	4.1	72.5	35.6		B) ded bladder pump
	1008	18.06	2.0	6.59	18.4	3340	3.9	73.1	32.1		C) non-ded bladder pump; or
	1010	18.08	2.5	6.51	18.4	3420	3.6	74.6	33.7	colorless/cloudy	Standard groundwater sample:
	1013	18.08	3.0	6.48	18.2	3400	3.5	75.3	31.5		D) bailer due to limited column; or
	1015	18.08	3.5	6.43	18.2	3430	3.5	75.7	28.4		E) recovery well cycling sample
↓	1018	18.08	4.0	6.41	18.2	3410	3.4	75.9	27.3	colorless/clear	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1020	MW-118	18.08	6.41	18.2	3410	3.4	75.9	27.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓	↓	RO Fields Program (2020)										
		MW-118								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-9
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AJS (114)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1732	NP	16.78	0.00	25.65	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-119
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (115)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	920	NP	16.02	0.00	28.11	20.8	Yes	Yes	Yes	Yes		Weather: Partly cloudy, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	925	16.09	0.5	7.47	21.6	6920	2.1	99.8	24.2	colorless / clear	*Low-flow groundwater sample:*
	927	16.10	1.0	7.22	20.4	6670	1.5	102.3	15.8		(A) peristaltic pump w/ ded tubing
	930	16.10	1.5	7.17	20.2	6550	1.3	105.6	11.6		B) ded bladder pump
	933	16.10	2.0	7.14	19.9	6510	1.4	107.3	10.2		C) non-ded bladder pump; or
	935	16.10	2.5	7.09	19.8	6480	1.4	106.7	8.9		*Standard groundwater sample:*
	937	16.10	3.0	7.07	19.7	6470	1.4	106.1	8.0		D) bailer due to limited column; or
	940	16.10	3.5	7.06	19.8	6470	1.4	105.7	7.4		E) recovery well cycling sample
	943	16.10	4.0	7.06	19.7	6470	1.4	105.3	7.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	945	MW-119	16.10	7.06	19.7	6470	1.4	105.3	7.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
		RO Fields Program (2020)										
	945	MW-119								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-5
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GBS (116)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1554	NF	16.32	0.00	25.09	20.0	Yes	Yes	Yes	Yes		Weather: SUNNY, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-5								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-136
Event: iH2O
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GX (117)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1601	NP	16.69	0.00	27.90	23.0	Yes	Yes	Yes	Yes		Weather: Sunny, 70's
6/17/20	850	NP	16.65	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	855	16.73	0.5	7.17	22.3	6620	2.3	76.2	42.9	colorless / sl. cloudy	Low-flow groundwater sample:
	857	16.73	1.0	7.12	21.6	6410	1.5	82.0	34.1	↓	(A) peristaltic pump w/ ded tubing
	900	16.73	1.5	7.08	21.4	6370	1.2	86.1	29.3	↓	B) ded bladder pump
	903	16.73	2.0	6.99	21.3	6300	1.1	88.6	24.5	colorless / clear	C) non-ded bladder pump; or
	905	16.73	2.5	6.95	21.3	6300	1.0	89.3	20.9	↓	Standard groundwater sample:
	907	16.73	3.0	6.96	21.2	6290	1.0	90.6	18.6	↓	D) bailer due to limited column; or
	910	16.73	3.5	6.95	21.2	6290	1.0	92.0	17.9	↓	E) recovery well cycling sample
↓	913	16.73	4.0	6.95	21.2	6280	1.0	93.2	17.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	915	MW-136	16.73	6.95	21.2	6280	1.0	93.2	17.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-126A
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (118)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1440	NP	20.60	0.00	37.51	29.5	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1445	20.61	0.5	7.05	27.1	4880	2.3	-115.6	56.1	Colorless / Sl. Cloudy	Low-flow groundwater sample:
↓	1447	20.61	1.0	6.97	25.4	4820	1.6	-119.4	59.6	↓	(A) peristaltic pump w/ ded tubing
	1450	20.61	1.5	6.91	24.3	4830	1.3	-125.2	39.9		B) ded bladder pump
	1453	20.61	2.0	6.90	23.9	4800	1.1	-127.9	28.7		C) non-ded bladder pump; or
	1455	20.61	2.5	6.91	23.6	4760	1.1	-130.8	18.3	Colorless / clear	Standard groundwater sample:
	1457	20.61	3.0	6.91	23.6	4720	1.0	-133.6	12.6	↓	D) bailer due to limited column; or
	1500	20.61	3.5	6.91	23.5	4680	1.1	-137.0	8.1		E) recovery well cycling sample
↓	1503	20.61	4.0	6.92	23.5	4650	1.1	-140.6	6.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1505	MW-126A	20.61	6.92	23.5	4650	1.1	-140.6	6.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-126B
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: ADS (119)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1400	NP	20.45	0.00	51.43	48.4	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1405	20.59	0.5	7.10	26.5	5300	2.0	93.2	11.0	Colorless / clear	*Low-flow groundwater sample:*
↓	1407	20.59	1.0	7.06	24.2	5730	1.3	96.8	7.1	↓	(A) peristaltic pump w/ ded tubing
	1410	20.59	1.5	6.98	23.7	5850	1.2	99.0	4.4		B) ded bladder pump
	1413	20.59	2.0	6.92	23.1	5950	1.0	100.3	3.7		C) non-ded bladder pump; or
	1415	20.59	2.5	6.87	22.9	5970	1.0	101.1	3.1		*Standard groundwater sample:*
	1417	20.59	3.0	6.88	23.0	5980	1.0	101.9	3.6		D) bailer due to limited column; or
	1420	20.59	3.5	6.88	22.9	6010	1.0	102.7	3.2		E) recovery well cycling sample
↓	1423	20.59	4.0	6.87	22.8	6030	1.0	103.4	2.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1425	MW-126B	20.59	6.87	22.8	6030	1.0	103.4	2.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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* No Sheen present

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-127
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MSJ (120)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1349	22.45	24.24	1.79	53.21	38.4	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT	Sampled	due	to well			C) non-ded bladder pump; or
			2.5			having	LNAPL	Thickness			*Standard groundwater sample:*
			3.0			≥	0.03'				D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-127								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-129
Event: 1H20
Area of Concern: REST

Completion: At-Grade ✓ / ~~Upright~~ ✓ | Casing Diam.: 2-in ✓ / 4-in | Casing Material: PVC ✓ / SS / Other

* well has been converted to at-grade completion.

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GAS (121)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1340	23.17	24.08	0.91	~~53.08~~ 50.78	~~38.2~~ NA	Yes	* Yes	Yes	Yes		Weather: partly Cloudy, 80's

Well Purging Record

(Recompleted at-grade prior to 1H20 event)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								Low-flow groundwater sample:
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED due to well having LNAPL thickness ≥ 0.03'						C) non-ded bladder pump; or
			2.5								Standard groundwater sample:
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-129								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

Take photo for TRC (MW-129) emailed to Sev 6/15/20

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+EB-RO-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#18A
Event: iH20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCU (122)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	925	NP	16.94	0.00	17.78	16.7	Yes	Yes	Yes	Yes		Weather: p. cloudy, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	930	16.96	0.5	7.15	22.9	3570	3.2	107.0	15.9	colorless; clear	Low-flow groundwater sample:
↓	932	16.96	1.0	7.03	22.4	3600	2.4	105.8	15.5	↓	(A) peristaltic pump w/ ded tubing
	935	16.96	1.5	7.01	22.3	3610	2.4	105.7	12.1		B) ded bladder pump
	937	16.96	2.0	7.00	22.3	3610	2.3	105.9	10.7		C) non-ded bladder pump; or
	940	16.96	2.5	6.98	22.3	3620	2.3	106.3	10.4		Standard groundwater sample:
	942	16.96	3.0	6.97	22.2	3620	2.1	106.9	10.1		D) bailer due to limited column; or
	945	16.96	3.5	6.96	22.2	3630	2.1	108.0	9.8		E) recovery well cycling sample
↓	947	16.96	4.0	6.95	22.1	3630	2.0	109.1	9.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	950	RW-#18A	16.96	6.95	22.1	3630	2.0	109.1	9.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
		RO Fields Program (2020)										
↓	950	RW-#18A	16.96	6.95	22.1	3630	2.0	109.1	9.8	Per COC	Per COC	
↓	1005	EB-RO-01	NA						→	Per COC	per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-1A
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: LDS (123)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1541	NP	17.91	0.00	33.50	25.8	Yes	Yes	Yes	Yes		Weather: Sunny, 70's
6/17/20	935	NP	17.90	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	940	17.91	0.5	7.17	24.4	6790	5.4	108.8	17.5	clorkish / clear	*Low-flow groundwater sample:*
	943	17.91	1.0	6.99	23.0	6960	2.8	105.4	8.9		(A) peristaltic pump w/ ded tubing
	945	17.91	1.5	6.93	22.4	6880	2.6	108.6	5.2		B) ded bladder pump
	947	17.91	2.0	6.92	22.2	6780	2.3	109.1	4.1		C) non-ded bladder pump; or
	950	17.91	2.5	6.92	21.9	6750	2.2	110.2	3.7		*Standard groundwater sample:*
	953	17.91	3.0	6.91	22.0	6760	2.2	110.9	2.9		D) bailer due to limited column; or
	955	17.91	3.5	6.91	22.0	6760	2.1	111.6	3.2		E) recovery well cycling sample
↓	957	17.91	4.0	6.91	21.9	6760	2.1	112.2	2.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1000	KWB-1A	17.91	6.91	21.9	6760	2.1	112.2	2.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-1B
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (124)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1543	NP	19.63	0.00	33.92	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-1B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-1C
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (125)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1545	NP	20.24	0.00	52.71	42.7	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Curr. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-1C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Located ~25' N. of original KWB-10 pad) **Monitoring Well Purging and Sampling Record**

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-10R
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: COS (126)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1535	18.56	21.40	2.84	29.46	22.0	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not SAMPLED due to well						C) non-ded bladder pump; or
			2.5		having LNAPL thickness						*Standard groundwater sample:*
			3.0		≥ 0.03'						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-10R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-131
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (127)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1255	NP	25.85	0.00	53.35	38.1	Yes	Yes	Yes	Yes		Weather: Partly Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1300	25.86	0.5	6.86	29.4	3020	2.7	-118.9	12.7	Colorless / clear	*Low-flow groundwater sample:*
	1303	25.87	1.0	6.84	28.2	3030	2.4	-123.5	15.6	↓	(A) peristaltic pump w/ ded tubing
	1305	25.87	1.5	6.80	27.7	3030	2.3	-127.8	18.1	+ brown particles	B) ded bladder pump
	1307	25.87	2.0	6.77	26.8	3030	2.1	-131.9	15.6	↓	C) non-ded bladder pump; or
	1310	25.87	2.5	6.75	26.4	2990	2.1	-135.8	16.2	↓	*Standard groundwater sample:*
	1313	25.87	3.0	6.75	26.2	3010	2.0	-139.8	14.9	↓	D) bailer due to limited column; or
	1315	25.87	3.5	6.74	26.3	2990	2.0	-142.5	13.9	↓	E) recovery well cycling sample
↓	1317	25.87	4.0	6.74	26.2	2980	1.9	-144.4	14.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1320	MW-131	25.87	6.74	26.2	2980	1.9	-144.4	14.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-5
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade _	2-in ✓	PVC ✓
Upright ✓	4-in _	SS _
Vault _	Other _	Other _

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: DSD (128)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1655	25.72	27.11	1.39	37.68	30.7	Yes	Yes	Yes	Yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								(B) ded bladder pump
			2.0			NO Sample ; LNAPL > 0.03'					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-5								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

* upon HMI arrival, tubing / bladder pump were removed. HMI "fished" bladder pump from back of well and installed new tubing.

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-111
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring for TRC Houston, Texas

Initials: GDS

(129)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1725	NP	27.05	0.00	40.83	35.8	Yes	Yes	Yes	Yes		Weather: Sunny, 80's
6/17/20	1020	NP	26.99	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1025	27.08	0.5	6.70	27.8	4260	2.4	-62.8	100.1	colorless / sl. cloudy	*Low-flow groundwater sample:*
	1027	27.08	1.0	6.68	26.7	4210	1.9	-74.6	111.2	↓	A) peristaltic pump w/ ded tubing
	1030	27.08	1.5	6.65	26.0	4260	1.7	-83.9	128.6	↓	(B) ded bladder pump
	1033	27.08	2.0	6.64	25.6	4280	1.7	-90.4	158	↓	C) non-ded bladder pump; or
	1035	27.08	2.5	6.63	25.4	4260	1.6	-94.4	176	tan / cloudy	*Standard groundwater sample:*
	1037	27.08	3.0	6.63	25.5	4310	1.6	-97.8	184	↓	D) bailer due to limited column; or
	1040	27.08	3.5	6.62	25.5	4290	1.6	-100.1	192	↓	E) recovery well cycling sample
	1043	27.08	4.0	6.62	25.5	4270	1.6	-103.0	7200	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1045	MW-111	27.08	6.62	25.5	4270	1.6	-103.0	7200	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

No Sock present

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-6
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (130)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1241	23.89	26.45	2.56	36.44	27.4	Yes	Yes	Yes	Yes		Weather: Partly Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED due to well						C) non-ded bladder pump; or
			~~2.5~~		having	LNAPL	thickness				*Standard groundwater sample:*
			3.0			≥ 0.03'					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-6										Lab: Pace National, Mt. Juliet, TN
										Per COC	Per COC	+ EDB in 1H20, per TRC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

* NO SOCK present

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-112
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GZS (131)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1247	23.15	25.09	1.94	37.54	32.5	Yes	Yes	Yes	Yes		Weather: Partly Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								Low-flow groundwater sample:
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED		DUE TO	WELL			C) non-ded bladder pump; or
			2.5		HAVING		LNAPL	THICKNESS			Standard groundwater sample:
			3.0			≥ 0.03'					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-112								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

* No sock present

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-132
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS

132

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1236	21.25	23.75	2.50	42.66	NA	Yes	Yes	Yes	Yes		Weather: Partly cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED due to well						C) non-ded bladder pump; or
			~~2.5~~		having	LNAPL	thickness				*Standard groundwater sample:*
			3.0		≥	0.03'					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-132								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located inside yellow vault; furthest South

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-57
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD (133)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1500	NP	21.45 (21.45)	0.00	34.32	32.8	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1505	21.57	0.5	6.98	24.5	3980	4.6	113.2	13.5	Colorless/Clear	*Low-flow groundwater sample:*
	1508	21.59	1.0	6.88	24.5	3990	4.2	112.6	11.6		A) peristaltic pump w/ ded tubing
	1510	21.64	1.5	6.81	24.4	4140	4.0	111.5	9.5		(B) ded bladder pump
	1513	21.68	2.0	6.78	24.4	4176	3.8	109.3	9.2		C) non-ded bladder pump; or
	1515	21.70	2.5	6.74	24.3	4190	3.7	107.4	8.4		*Standard groundwater sample:*
	1518	21.73	3.0	6.71	24.2	4220	3.5	105.2	8.1		D) bailer due to limited column; or
	1520	21.75	3.5	6.79	24.1	4250	3.4	103.1	7.8		E) recovery well cycling sample
	1522	21.77	4.0	6.73	24.1	4270	3.4	99.6	7.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1525	MW-57	21.77	6.73	24.1	4270	3.4	99.6	7.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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~32" corrugated stickup

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#11-O
Event: 1H20
Area of Concern: REST

Completion: At-Grade __ Upright ✓ Vault __
Casing Diam.: 2-in __ 4-in __ Other 32-in
Casing Material: PVC __ SS __ Other ✓ corrugated pipe

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GMS

(134)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1224	Dry	Dry	Dry	22.20	NA	Yes	Yes	Yes	Yes		Weather: Partly Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								Low-flow groundwater sample:
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT	SAMPLED Due to well					C) non-ded bladder pump; or
			2.5			being dry					Standard groundwater sample:
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample
											(Historically not sampled

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#11-O								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(until further notice, do not address in any way, per Navajo 4-26-16)

Monitoring Well Purging and Sampling Record

(Farmer - Jack Jay, 575-365-6042)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-9
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

135

Initials: LDS

Well Inspection Information

(Historically - well casing obstructed @ 15.11')

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1227	NM	NM	NM	NM	NA	—	—	—	—		Weather: Partly Cloudy, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		DO NOT ADDRESS						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-12A
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD (136)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1240	NP	23.88	0.00	25.03	24.9	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1245	24.02	0.5	6.90	26.6	2830	3.8	72.1	18.8	Colorless/clear	*Low-flow groundwater sample:*
"	1248	24.12	1.0	6.86	26.8	2840	3.4	70.9	12.5	"	(A) peristaltic pump w/ ded tubing
"	1250	24.16	1.5	6.82	26.6	3050	3.3	69.3	11.6	"	B) ded bladder pump
"	1253	24.18	2.0	6.79	26.2	3040	3.3	68.7	10.8	"	C) non-ded bladder pump; or
"	1255	24.21	2.5	6.77	26.1	3040	3.2	68.2	9.6	"	*Standard groundwater sample:*
"	1257	24.21	3.0	6.76	25.8	3030	3.2	67.8	9.2	"	D) bailer due to limited column; or
"	1300	24.21	3.5	6.75	25.7	3040	3.2	67.2	6.5	"	E) recovery well cycling sample
↓	1302	24.23	4.0	6.73	25.5	3050	3.2	66.9	7.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1305	KWB-12A	24.23	6.73	25.5	3050	3.2	66.9	7.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+ Dup-Rest-05 (same analyses)
+ EB-Rest-05 (same analyses)
+ Trip Blank - Rest 02

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KwB-12B
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSJ (137)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1330	NP	23.73	0.00	39.39	35.2	Yes	Yes	Yes	Yes		Weather: CLEAR 80'S

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1335	23.79	0.5	6.86	22.9	2760	5.2	59.4	9.8	Color/Less/Clear	Low-flow groundwater sample:
	1338	23.79	1.0	6.81	23.2	2760	5.0	61.2	9.2		A) peristaltic pump w/ ded tubing
	1340	23.79	1.5	6.80	23.4	2750	4.9	64.7	8.8		(B) ded bladder pump
	1343	23.79	2.0	6.79	23.5	2730	4.9	67.5	8.5		C) non-ded bladder pump; or
	1345	23.79	2.5	6.79	23.7	2720	4.9	69.8	8.1		Standard groundwater sample:
	1348	23.79	3.0	6.78	23.8	2720	4.8	71.4	7.6		D) bailer due to limited column; or
	1350	23.79	3.5	6.77	23.9	2700	4.8	73.3	7.2		E) recovery well cycling sample
	1353	23.79	4.0	6.75	23.9	2690	4.7	75.7	6.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1355	KwB-12B	23.79	6.75	23.9	2690	4.7	75.7	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	1200	Dup-Rest-05	23.79	6.75	23.9	2690	4.7	75.7	6.8	Same	same	
	1415	EB-Rest-05	NA							Same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-2R
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: KDS (138)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1652	24.57	24.73	0.16	39.39	32.4	¥	¥	¥	¥	¥	Weather: Sunny, 90's

¥ At-grade prot. casing damaged and needs to be replaced. PVC well is functional and appears to not be damaged

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not Sample'd due to well						C) non-ded bladder pump; or
			2.5		having LNAPL thickness						*Standard groundwater sample:*
			3.0		≥ 0.03'						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-2R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-58
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GMS (139)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1703	23.43	24.05	0.62	33.06	25.6	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED DUE to well						C) non-ded bladder pump; or
			2.5		having LNAPL thickness						*Standard groundwater sample:*
			3.0		≥ 0.03'						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-58								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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HNI dedicated bladder pump (Pull pump; allow equilibration; then gauge)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-13
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD (140)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1730	NP	28.42 (28.42)	0.00	33.10	30.1	Yes	Yes	Yes	Yes		Weather: Clear, 90s

Well Purging Record

* Top of pump @ 27.40'

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1735	>27.40	0.5	6.84	26.8	3010	6.4	-23.5	7200	TAN/CLOUDY	*Low-flow groundwater sample:*
	1737	>27.40	1.0	6.81	26.4	3020	6.1	-17.5	7200		A) peristaltic pump w/ ded tubing
	1740	>27.40	1.5	6.78	26.3	3010	5.8	-15.8	7200		(B) ded bladder pump
	1742	>27.40	2.0	6.78	26.1	3020	5.7	-13.1	7200		C) non-ded bladder pump; or
	1745	>27.40	2.5	6.77	25.8	3030	5.5	-9.6	7200		*Standard groundwater sample:*
	1748	>27.40	3.0	6.76	25.5	3020	5.5	-7.6	7200		D) bailer due to limited column; or
	1750	>27.40	3.5	6.75	25.4	3020	5.4	-6.9	7200		E) recovery well cycling sample
↓	1752	>27.40	4.0	6.74	25.3	3020	5.4	-6.5	7200	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1755	KWB-13	>27.40	6.74	25.3	3020	5.4	-6.5	7200	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Sign-in & permit from South Crude Control Room prior to entry

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-103
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: ZG (141)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1245	NP	17.69	0.00	25.22	22.2	Yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1250	17.91	0.5	7.09	34.4	11,710	1.9	-305.1	5.6	colorless; clear	*Low-flow groundwater sample:*
"	1252	17.97	1.0	7.06	33.9	11,800	1.8	-314.2	5.4	"	(A) peristaltic pump w/ ded tubing
"	1255	18.03	1.5	7.05	34.0	11,840	1.7	-317.8	5.1	"	B) ded bladder pump
"	1257	18.08	2.0	7.04	33.8	11,920	1.8	-321.3	5.0	"	C) non-ded bladder pump; or
"	1300	18.11	2.5	7.04	33.7	11,980	1.7	-322.6	4.9	"	*Standard groundwater sample:*
"	1302	18.14	3.0	7.04	33.7	12,010	1.7	-323.4	4.9	"	D) bailer due to limited column; or
"	1305	18.17	3.5	7.04	33.6	12,030	1.7	-324.1	4.8	"	E) recovery well cycling sample
↓	1307	18.20	4.0	7.03	33.6	12,040	1.7	-324.7	4.8	"	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1310	MW-103	18.20	7.03	33.6	12,040	1.7	-324.7	4.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Sign-in & Permit from South Crude Control Room prior to entry

Monitoring Well Purging and Sampling Record

+ Dup-Rest-02 (Same analysis)
+ EB-Rest-02 (Same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-104
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

(142)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1350	NP	13.85	0.80	21.97	19.0	Yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1355	13.98	0.5	6.81	28.3	2340	1.8	-318.9	H.0	colorless; clear	*Low-flow groundwater sample:*
	1357	14.04	1.0	6.88	27.9	2070	1.6	-323.6	3.8		(A) peristaltic pump w/ ded tubing
	1400	14.09	1.5	6.92	27.6	1950	1.5	-325.7	3.6		B) ded bladder pump
	1402	14.13	2.0	6.93	27.3	1854	1.5	-326.8	3.6		C) non-ded bladder pump; or
	1405	14.16	2.5	6.94	27.2	1838	1.5	-327.0	3.4		*Standard groundwater sample:*
	1407	14.19	3.0	6.95	27.2	1826	1.5	-327.3	3.4		D) bailer due to limited column; or
	1410	14.22	3.5	6.96	27.2	1807	1.4	-327.4	3.3		E) recovery well cycling sample
	1412	14.25	4.0	6.95	27.2	1804	1.4	-327.5	3.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1415	MW-104	14.25	6.95	27.2	1804	1.4	-327.5	3.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	1425	Dup-Rest-02	14.25	6.95	27.2	1804	1.4	-327.5	3.3	Same	Same	
	1435	EB-Rest-02	NA						→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube; stretch to outside of berm

Monitoring Well Purging and Sampling Record

(Sock removed; replaced after sampling)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-64
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (143)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1505	20.95	20.96	0.01*	34.08	26.6	Yes	Yes	Yes	Yes		Weather: Clear, 90s

Well Purging Record

*Removed w/ absorbant pad prior to sampling

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1510	21.16	0.5	6.91	36.5	2310	2.1	-310.6	26.1	colorless; clear	Low-flow groundwater sample:
	1512	21.25	1.0	6.91	36.3	2330	2.0	-315.5	24.4		(A) peristaltic pump w/ ded tubing
	1515	21.32	1.5	6.90	36.3	2340	2.1	-318.5	22.7		B) ded bladder pump
	1517	21.36	2.0	6.89	36.1	2340	2.2	-321.8	21.3		C) non-ded bladder pump; or
	1520	21.37	2.5	6.89	36.0	2350	2.3	-325.1	21.0		Standard groundwater sample:
	1522	21.38	3.0	6.88	35.9	2360	2.4	-327.1	20.4		D) bailer due to limited column; or
	1525	21.39	3.5	6.88	35.9	2360	2.4	-328.5	20.2		E) recovery well cycling sample
✓	1527	21.40	4.0	6.87	35.9	2360	2.4	-329.0	20.0	↓ ↓	F) irrigation well grab sample
	1										

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1530	MW-64	21.40	6.87	35.9	2360	2.4	-329.0	20.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube; Located in front of Navajo storage shed.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-65
Event: 1H20
Area of Concern: BEST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Saturated sock should be replaced w/ new sock w/ slightly shorter cord please -scu 6/16/20 Initials: SCU

Hydrologic Monitoring
for TRC
Houston, Texas

(144)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1550	17.84	18.99	1.15	28.78	23.8	Yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not Sampled; LNAPL present ≥ 0.03'						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6/16/20		MW-65								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge to top of guide-pipe

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-5R
Event: 1H20
Area of Concern: REST

Above-grade

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other ✓	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (145)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other:	Comments
6/16/20	1605	22.60	24.32	1.72	NM	24.0	Yes	Yes	Yes	Yes		Weather: Clear, 90s
					(pump in well; reported total depth = 35.30 Ft-TOC)							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Not sampled; LNAPL present ≥ 0.03					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-5R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tubes; do not dedicate, per historical observations.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-102
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SLG (146)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1625	NP	16.65	0.00	26.45	21.3	Yes	Yes	Yes	Yes		Weather: pt. cloudy; 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1630	16.68	0.5	6.98	30.0	2180	2.8	-274.5	20.5	colorless; clear	*Low-flow groundwater sample:*
"	1632	16.68	1.0	6.94	29.5	2220	2.1	-286.8	17.4	↓	(A) peristaltic pump w/ ded tubing
"	1635	16.68	1.5	6.88	28.7	2240	1.9	-302.7	13.1		B) ded bladder pump
"	1637	16.68	2.0	6.86	28.3	2250	2.0	-307.0	10.4		C) non-ded bladder pump; or
"	1640	16.68	2.5	6.85	28.1	2250	2.1	-309.7	9.1		*Standard groundwater sample:*
"	1642	16.68	3.0	6.85	28.0	2260	2.1	-310.4	9.0		D) bailer due to limited column; or
"	1645	16.68	3.5	6.84	27.7	2260	2.2	-312.0	8.8		E) recovery well cycling sample
↓	1647	16.68	4.0	6.84	27.6	2260	2.2	-312.4	8.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1650	MW-102	16.68	6.84	27.6	2260	2.2	-312.4	8.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-4
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other ✓	Other __

(Recovery Well Doghouse)

Bracket to hold doghouse top open is damaged; prop open w/ pry bar

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SLG (147)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1722	NP	15.05	0.00	36.62	31.6	yes	yes	yes	yes		Weather: pt cloudy, 90s
6/17/20	850	NP	15.08	0.00								

Well Purging Record

* Gauge/Sample through labeled guide-pipe.
* Drawdown not measured (narrow diam guide-pipe)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	855	NM *	0.5	6.69	27.3	2110	2.0	-296.9	18.8	colorless; clear	Low-flow groundwater sample:
"	857	"	1.0	6.71	27.0	2110	1.8	-299.1	19.1	"	(A) peristaltic pump w/ ded tubing
"	900	"	1.5	6.71	27.0	2110	2.0	-300.4	19.4	"	B) ded bladder pump
"	902	"	2.0	6.72	26.9	2110	2.0	-301.1	19.7	"	C) non-ded bladder pump; or
"	905	"	2.5	6.72	26.9	2110	2.1	-310.4	20.0	"	Standard groundwater sample:
"	907	"	3.0	6.73	26.8	2110	2.2	-304.1	20.4	"	D) bailer due to limited column; or
"	910	"	3.5	6.73	26.8	2100	2.2	-303.5	20.6	"	E) recovery well cycling sample
↓	912	↓	4.0	6.73	26.7	2110	2.2	-303.8	20.8	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	915	RW-4	NM*	6.73	26.7	2110	2.2	-303.8	20.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-6
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other ✓	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (148)

Well Inspection Information

(Recovery well; Doghouse)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	715	23.60	26.12	2.52	34.90	30.0	Yes	Yes	Yes	Yes		Weather: pt cloudy, 90s

Well Purging Record

* Gauge/Sample through labeled guide-pipe
* Drawdown not measured (narrow diam. guide-pipe)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
		NM *	0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Not Sampled; LNAPL present ≥ 0.03				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-6								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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Position marked on adjacent fence; well is ~4' N. of chain-link fence; possibly covered by gravel/silt.

Monitoring Well Purging and Sampling Record

Navajo Refining Company — Well: MW-99
Artesia Refinery — Event: 1H20
Artesia, New Mexico — Area of Concern: REST

Completion: At-Grade ✓ / Upright __ / Vault __
Casing Diam.: 2-in __ / 4-in ✓ / Other __
Casing Material: PVC ✓ / SS __ / Other __

Hydrologic Monitoring for TRC
Houston, Texas

Initials: SCH (149)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1731	NP	20.07	0.00	27.80	22.8	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s
6/17/20	1220	NP	20.10	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1230	20.18	0.5	6.55	29.6	1180	2.0	-265.0	35.0	lt. gray tint; clear	*Low-flow groundwater sample:*
"	1232	20.21	1.0	6.53	28.9	1136	2.1	-272.5	31.9		(A) peristaltic pump w/ ded tubing
	1235	20.22	1.5	6.51	28.7	1095	2.3	-275.5	32.1		B) ded bladder pump
	1237	20.23	2.0	6.50	28.5	1080	2.3	-278.4	33.9		C) non-ded bladder pump; or
	1240	20.23	2.5	6.50	28.4	1071	2.3	-279.5	34.3		*Standard groundwater sample:*
	1242	20.23	3.0	6.49	28.0	1052	2.4	-286.5	34.2		D) bailer due to limited column; or
	1245	20.23	3.5	6.49	28.0	1034	2.4	-281.7	34.1		E) recovery well cycling sample
↓	1247	20.23	4.0	6.49	28.0	1031	2.4	-282.2	34.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1250	MW-99	20.23	6.49	28.0	1031	2.4	-282.2	34.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Middle of gravel road; location marked on adjacent chain-link fence.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-66
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ___	PVC ✓
Upright ___	4-in ✓	SS ___
Vault ___	Other ___	Other ___

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SLH (150)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1738	NP	19.34	0.00	29.80	24.6	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s
6/17/20	1220	NP	19.36	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1225	19.51	0.5	6.97	29.8	2770	2.0	-156.2	54.5	colorless / sl. cloudy	*Low-flow groundwater sample:*
	1227	19.58	1.0	6.89	26.8	2740	1.7	-159.2	24.6	colorless / clear	(A) peristaltic pump w/ ded tubing
	1230	19.59	1.5	6.83	26.2	2720	1.6	-160.7	17.7		B) ded bladder pump
	1233	19.59	2.0	6.82	25.4	2730	1.7	-162.5	11.1		C) non-ded bladder pump; or
	1235	19.59	2.5	6.82	25.4	2730	1.7	-164.2	9.8		*Standard groundwater sample:*
	1237	19.59	3.0	6.83	25.2	2730	1.7	-166.2	8.2		D) bailer due to limited column; or
	1240	19.59	3.5	6.82	25.1	2730	1.6	-168.6	7.7		E) recovery well cycling sample
↓	1243	19.59	4.0	6.82	25.0	2730	1.6	-170.3	7.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1245	MW-99	19.59	6.82	25.0	2730	1.6	-170.3	7.4	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-28
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Formerly: Extended vertically through gravel berm
Converted to upright completion (in area of former berm, cut out to ground surface, pre 1H20.

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

(151)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1745	NP	20.18	0.00	27.82	23.8	Yes	Yes	Yes	Yes		Weather: pt cloudy, 90s
6/17/20	1315	NP	20.21	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1320	20.28	0.5	7.32	27.7	4110	1.4	-276.6	18.1	Colorless / clear	*Low-flow groundwater sample:*
	1323	20.33	1.0	7.31	25.4	4330	1.1	-308.9	10.6		(A) peristaltic pump w/ ded tubing
	1325	20.36	1.5	7.27	25.0	4390	1.1	-311.8	5.8		B) ded bladder pump
	1327	20.38	2.0	7.25	25.0	4420	1.2	-312.3	4.4		C) non-ded bladder pump; or
	1330	20.40	2.5	7.24	24.7	4440	1.2	-314.1	3.6		*Standard groundwater sample:*
	1333	20.41	3.0	7.23	24.4	4460	1.2	-315.6	2.9		D) bailer due to limited column; or
	1335	20.42	3.5	7.22	24.3	4470	1.2	-316.2	2.4		E) recovery well cycling sample
	1337	20.43	4.0	7.22	24.3	4480	1.2	-318.0	2.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1340	MW-28	20.43	7.22	24.3	4480	1.2	-318.0	2.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-59
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCM (152)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other:	
6/16/20	1750	NP	16.62	0.00	32.72	25.3	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s
6/17/20	950	NP	16.65	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	955	16.68	0.5	6.89	27.0	2870	2.3	-220.6	20.5	colorless; clear	*Low-flow groundwater sample:*
"	957	16.68	1.0	6.86	26.8	2890	2.2	-225.8	15.4		(A) peristaltic pump w/ ded tubing
"	1000	16.68	1.5	6.84	26.6	2900	2.2	-232.3	13.5		B) ded bladder pump
"	1002	16.68	2.0	6.83	26.4	2900	2.3	-235.2	12.3		C) non-ded bladder pump; or
"	1005	16.68	2.5	6.82	26.3	2910	2.4	-239.5	11.9		*Standard groundwater sample:*
"	1007	16.68	3.0	6.81	26.3	2910	2.4	-241.9	11.2		D) bailer due to limited column; or
"	1010	16.68	3.5	6.80	26.3	2910	2.5	-243.9	11.0		E) recovery well cycling sample
↓	1012	16.68	4.0	6.80	26.2	2910	2.5	-244.5	10.4	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1015	MW-59	16.68	6.80	26.2	2910	2.5	-244.5	10.4	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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(Support - trailer parking area)

Monitoring Well Purging and Sampling Record

+Dup-Rest-04 (same analysis)
+EB-Rest-04 (same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-60
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (153)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1755	NP	17.95	0.00	37.78	26.7	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s
6/17/20	1120	NP	17.98	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1125	18.12	0.5	6.59	29.3	3520	2.7	-275.9	7.5	colorless; clear	*Low-flow groundwater sample:*
	1127	18.18	1.0	6.58	28.7	3540	2.4	-284.1	7.0		(A) peristaltic pump w/ ded tubing
	1130	18.23	1.5	6.58	28.6	3550	2.5	-286.1	6.8		B) ded bladder pump
	1132	18.24	2.0	6.57	28.0	3560	2.9	-295.3	6.2		C) non-ded bladder pump; or
	1135	18.25	2.5	6.57	27.9	3560	2.9	-297.1	6.0		*Standard groundwater sample:*
	1137	18.25	3.0	6.57	27.9	3560	2.9	-298.7	5.9		D) bailer due to limited column; or
	1140	18.25	3.5	6.57	27.8	3560	2.9	-299.9	5.8		E) recovery well cycling sample
↓	1142	18.25	4.0	6.57	27.7	3560	2.9	-303.0	5.6	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1145	MW-60	18.25	6.57	27.7	3560	2.9	-303.0	5.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	1000	Dup-Rest-04	18.25	6.57	27.7	3560	2.9	-303.0	5.6	same	same	
↓	1205	EB-Rest-04	NA	—	—	—	—	—	→	same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-107
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (154)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1805	18.43	18.35	.92	19.05	17.1	Yes	Yes	Yes	Yes		Weather: P. cloudy, 90s

Well Purging Record + DTP CONFIRMED

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT	SAMPLED	DUE	TO	LNAPL	>0.03	C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-107								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located 15' NW of NW corner of berm; Commonly buried by gravel / silt

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-128
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

(155)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1312	18.35	20.26	1.91	35.35	25.4	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s

Well Purging Record

* AT-grade; under dust / gravel

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5		NOT SAMPLED due to LNAPL 20.03						*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhc/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-128								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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(Bagged extension, NF flooded)

Monitoring Well Purging and Sampling Record

+ Trip Blank-03 REST
(for TRC prgm)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-116
Event: 1st 20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCM (156)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1050	NP	16.18	0.00	27.63	20.0	Yes	Yes	Yes	Yes		Weather: Cloudy, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1055	16.23	0.5	6.98	21.2	3765	4.4	-21.8	8.2	colorless; clear	*Low-flow groundwater sample:*
	1058	16.24	1.0	6.94	19.8	3837	3.2	-24.8	6.0		(A) peristaltic pump w/ ded tubing
	1100	16.24	1.5	6.91	19.2	3889	3.1	-37.6	4.9		B) ded bladder pump
	1103	16.24	2.0	6.88	18.9	3921	3.0	-39.8	3.7		C) non-ded bladder pump; or
	1105	16.24	2.5	6.86	18.8	3947	2.8	-40.6	3.4		*Standard groundwater sample:*
	1108	16.24	3.0	6.85	18.8	3962	2.7	-41.2	3.2		D) bailer due to limited column; or
	1110	16.24	3.5	6.84	18.7	3971	2.6	-41.8	3.1		E) recovery well cycling sample
	1113	16.24	4.0	6.84	18.7	3976	2.6	-42.2	3.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1115	MW-116	16.24	6.84	18.7	3976	2.6	-42.2	3.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
		RD Fields Program (2Q20)										
	1115	MW-116	16.24	6.84	18.7	3976	2.6	-42.2	3.1	per COC	per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-46R
Event: 1H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

N. side of dirt road; in-line with westernmost row of pecan trees; Position marked on adjacent chain-link fence (12' S. of fence)

Initials: SG

Hydrologic Monitoring
for TRC
Houston, Texas

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Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1820	NP	13.33	0.00	19.36	14.1	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s
6/17/20	1320	NP	13.36	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1325	13.38	0.5	6.79	26.6	3370	2.7	17.2	24.2	Colorless, clear	Low-flow groundwater sample:
	1327	13.38	1.0	6.75	26.1	3430	2.3	19.9	19.0		(A) peristaltic pump w/ ded tubing
	1330	13.38	1.5	6.72	25.9	3490	2.3	21.6	18.1		B) ded bladder pump
	1332	13.38	2.0	6.72	25.5	3500	2.4	22.1	17.4		C) non-ded bladder pump; or
	1335	13.38	2.5	6.71	25.4	3510	2.4	23.7	16.7		Standard groundwater sample:
	1337	13.38	3.0	6.71	25.3	3520	2.4	24.2	16.1		D) bailer due to limited column; or
	1340	13.38	3.5	6.71	25.3	3520	2.4	24.5	15.8		E) recovery well cycling sample
↓	1342	13.38	4.0	6.71	25.3	3520	2.4	24.7	15.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6/17/20	1345	MW-46R	13.38	6.71	25.3	3520	2.4	24.7	15.7	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Furthest west "city well"

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-3R
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(158)

Initials: SCH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/15/20	1605	NP	22.37	0.00	38.58	35.6	Y/S	Y/S	Y/S	Y/S		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/15/20	1610	22.37	0.5	6.42	24.9	2210	6.1	24.7	5.8	colorless ; clear	*Low-flow groundwater sample:*
"	1612	22.38	1.0	6.56	24.9	2250	5.8	48.8	5.5		A) peristaltic pump w/ ded tubing
"	1615	22.38	1.5	6.62	24.6	2260	5.5	55.0	5.1		(B) ded bladder pump
"	1617	22.39	2.0	6.64	24.5	2250	5.7	61.1	4.6		C) non-ded bladder pump; or
"	1620	22.40	2.5	6.68	24.2	2260	5.6	70.1	4.3		*Standard groundwater sample:*
"	1622	22.40	3.0	6.70	24.4	2260	5.7	74.4	4.1		D) bailer due to limited column; or
"	1625	22.40	3.5	6.70	24.3	2260	5.7	76.4	4.0		E) recovery well cycling sample
↓	1627	22.40	4.0	6.70	24.2	2260	5.6	77.0	3.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/15/20	1630	UG-3R	22.46	6.70	24.2	2260	5.6	77.0	3.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Location @ North-side park

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-4
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright ___	4-in ___	SS ___
Vault ___	Other ___	Other ___

Hydrologic Monitoring
for TRC
Houston, Texas

(159)

Initials: SCU

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/15/20	1655	NP	19.58	0.00	39.24	34.5	yes	yes	yes	yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/15/20	1700	19.75	0.5	6.96	24.3	3540	4.3	114.6	18.2	colorless; clear	*Low-flow groundwater sample:*
	1702	19.76	1.0	6.87	26.0	3600	3.4	116.5	15.4		(A) peristaltic pump w/ ded tubing
	1705	19.77	1.5	6.80	25.5	3640	2.9	119.1	12.7		B) ded bladder pump
	1707	19.78	2.0	6.77	25.3	3650	2.8	120.8	9.8		C) non-ded bladder pump; or
	1710	19.79	2.5	6.76	25.3	3660	2.8	121.8	9.6		*Standard groundwater sample:*
	1712	19.79	3.0	6.76	25.3	3660	2.7	121.9	9.6		D) bailer due to limited column; or
	1715	19.80	3.5	6.75	25.2	3660	2.7	122.1	9.2		E) recovery well cycling sample
	1717	19.80	4.0	6.75	25.0	3660	2.7	122.5	9.0	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/15/20	1720	UG-4	19.80	6.75	25.0	3670	2.7	122.5	9.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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North of elementary school

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-1
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(160)

Initials: SCH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/15/20	1745	NP	13.02	0.00	24.08	19.1	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/15/20	1750	13.03	0.5	7.23	27.5	3190	5.5	126.4	8.1	colorless; clear	*Low-flow groundwater sample:*
	1752	13.03	1.0	7.12	27.2	3200	4.8	127.1	7.6		(A) peristaltic pump w/ ded tubing
	1755	13.03	1.5	7.06	27.1	3200	4.5	128.0	7.4		B) ded bladder pump
	1758	13.03	2.0	7.02	26.8	3200	4.4	128.6	5.8		C) non-ded bladder pump; or
	1800	13.03	2.5	7.00	26.8	3200	4.3	129.1	5.4		*Standard groundwater sample:*
	1802	13.03	3.0	6.98	26.6	3190	4.1	129.8	5.2		D) bailer due to limited column; or
	1805	13.03	3.5	6.97	26.6	3190	4.1	130.2	5.2		E) recovery well cycling sample
↓	1807	13.03	4.0	6.97	26.6	3190	4.1	130.3	5.0	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/15/20	1810	UG-1	13.03	6.97	26.6	3190	4.1	130.3	5.0	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located near E-W alley, NW of Artesia Hotel

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-2
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(161)

Initials: SCU

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/15/20	1840	NP	16.81	0.00	29.28	24.3	Yes	Yes	Yes	Yes		Weather: pt. cloudy, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/15/20	1850	16.90	0.5	7.26	26.7	2250	3.9	121.2	5.4	colorless; clear	*Low-flow groundwater sample:*
↓	1852	16.90	1.0	7.23	26.5	2260	3.8	121.5	3.8	↓ ↓	(A) peristaltic pump w/ ded tubing
↓	1855	16.91	1.5	7.18	26.2	2250	3.5	122.4	3.6	↓ ↓	B) ded bladder pump
↓	1857	16.91	2.0	7.17	26.1	2250	3.4	122.7	3.4	↓ ↓	C) non-ded bladder pump; or
↓	1900	16.92	2.5	7.14	25.8	2240	3.4	123.1	3.1	↓ ↓	*Standard groundwater sample:*
↓	1902	16.92	3.0	7.12	25.6	2230	3.3	123.8	3.1	↓ ↓	D) bailer due to limited column; or
↓	1905	16.92	3.5	7.11	25.5	2230	3.2	124.4	3.0	↓ ↓	E) recovery well cycling sample
↓	1907	16.92	4.0	7.10	25.4	2230	3.2	124.6	3.0	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/15/20	1910	UG-2	16.92	7.10	25.4	2230	3.2	124.6	3.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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+Trip Blank - Rest - 04

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-101
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade (✓)	2-in __	PVC ✓
Upright (✓)	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (162)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1440	NP	14.25	0.00	~~26.85~~ 24.10	~~23.5~~ 20.75	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

* Converted to at-grade completion prior to 1H20 event

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1445	14.27	0.5	6.97	26.9	1760	3.4	-198.4	12.7	Clear / Colorless	*Low-flow groundwater sample:*
	1447	14.27	1.0	6.95	26.9	1722	3.1	-201.5	10.2		(A) peristaltic pump w/ ded tubing
	1450	14.27	1.5	6.92	26.8	1682	2.9	-203.1	9.4		B) ded bladder pump
	1452	14.27	2.0	6.90	26.8	1674	2.8	-204.9	8.5		C) non-ded bladder pump; or
	1455	14.27	2.5	6.89	26.7	1652	2.6	-205.4	8.2		*Standard groundwater sample:*
	1457	14.27	3.0	6.88	26.6	1650	2.5	-207.6	7.9		D) bailer due to limited column; or
	1500	14.28	3.5	6.88	26.6	1647	2.4	-208.1	6.2		E) recovery well cycling sample
	1502	14.28	4.0	6.87	26.5	1641	2.4	-209.9	5.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1505	MW-101	14.28	6.87	26.5	1641	2.4	-209.9	5.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

Take photo for TRC (MW-101)

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-105
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (163)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1650	ND	9.69	0.01	17.20	14.2	YES	YES	YES	YES		Weather: Clear 90°
6/17/20	900	ND	9.74	0.00			YES	YES	YES	YES		Clear 80°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	905	9.79	0.5	7.39	24.8	1712	1.8	-352.9	20.3	Clear Colorless	*Low-flow groundwater sample:*
	907	9.79	1.0	7.37	24.6	1703	1.6	-354.3	16.0	ode	(A) peristaltic pump w/ ded tubing
	910	9.79	1.5	7.33	24.5	1726	1.4	-354.5	15.4		B) ded bladder pump
	913	9.79	2.0	7.23	24.3	1728	1.3	-355.7	13.7		C) non-ded bladder pump; or
	915	9.79	2.5	7.19	24.2	1730	1.2	-356.1	11.4		*Standard groundwater sample:*
	917	9.79	3.0	7.17	24.2	1733	1.2	-356.3	10.6		D) bailer due to limited column; or
	920	9.79	3.5	7.15	24.1	1735	1.1	-355.0	10.0		E) recovery well cycling sample
↓	923	9.79	4.0	7.15	24.1	1736	1.1	-354.7	9.8	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	925	MW-105	9.79	7.15	24.1	1736	1.1	-354.7	9.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located in "Doghouse"; Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-2
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (164)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1530	15.02	15.53	0.51	36.13	31.1	yes	yes	yes	yes		Weather: clear 90s

Well Purging Record

* Gauge/Sample through labeled 1-in guide-pipe

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								Low-flow groundwater sample:
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5	Not Sampled Due to LNAPL ≥ 0.03'							Standard groundwater sample:
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20		RW-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN + SVOC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-61
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AB (165)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1526	NP	12.90	0.00	29.30	24.3	yes	yes	yes	yes		Weather: clear 90°
6/17/20	950	NP	12.92	0.00								clear 80°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	955	13.10	0.5	6.72	27.1	2980	1.4	-348.9	9.1	Clear/Colorless	*Low-flow groundwater sample:*
	957	13.22	1.0	6.69	26.9	2970	1.2	-353.0	8.2		(A) peristaltic pump w/ ded. tubing
	1000	13.33	1.5	6.68	26.8	2970	1.2	-355.2	6.0		B) ded bladder pump
	1003	13.41	2.0	6.66	26.7	2960	1.1	-360.2	4.0		C) non-ded bladder pump; or
	1005	13.51	2.5	6.65	26.6	2950	1.1	-362.3	3.8	Reduced Purge Rate	*Standard groundwater sample:*
	1010	13.61	3.0	6.65	26.4	2960	1.1	-366.2	2.9	100 mL/min	D) bailer due to limited column; or
	1015	13.71	3.5	6.65	26.4	2970	1.1	-366.5	2.7		E) recovery well cycling sample
	1020	13.74	4.0	6.64	26.4	2980	1.1	-367.1	2.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments (Lab: Pace National, Mt. Juliet, TN)
6/17/20	1025	MW-61	13.74	6.64	26.4	2980	1.1	-367.1	2.7	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-62
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(166)

Initials: TA BJ

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1500	NP	15.50	0.00	29.50	21.3	yes	yes	yes	yes		Weather: Clear 90s
6/17/20	1155	NP	15.51	0.00								Clear 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1200	15.67	0.5	6.44	27.2	2830	1.5	-341.2	12.1	Clear/Colorless	Low-flow groundwater sample:
	1203	15.77	1.0	6.44	27.0	2820	1.5	-346.3	9.7	odor	(A) peristaltic pump w/ ded tubing
	1205	15.84	1.5	6.46	26.9	2810	1.5	-350.8	7.8		B) ded bladder pump
	1207	15.89	2.0	6.47	26.8	2810	1.4	-351.2	7.5		C) non-ded bladder pump; or
	1210	15.93	2.5	6.48	26.6	2810	1.4	-351.0	7.5		Standard groundwater sample:
	1213	15.96	3.0	6.48	26.5	2800	1.4	-350.2	7.3		D) bailer due to limited column; or
	1215	15.99	3.5	6.49	26.5	2800	1.4	-350.9	5.8		E) recovery well cycling sample
↓	1217	16.01	4.0	6.49	26.5	2800	1.4	-351.3	4.9	↓ ↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1220	MW-62	16.01	6.49	26.5	2800	1.4	-351.3	4.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-93
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AB (167)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1550	NP	9.90	0.00	20.23	15.9	yes	yes	yes	yes		Weather: Clear 90
6/17/20	1100	NP	9.92	0.00			"	"	"	"		Clear 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1105	10.02	0.5	6.47	25.2	3010	1.5	-342.8	8.1	Clear/Odorless	*Low-flow groundwater sample:*
	1107	10.08	1.0	6.47	24.5	3060	1.3	-346.9	7.8	Odor	(A) peristaltic pump w/ ded tubing
	1110	10.13	1.5	6.46	24.1	2980	1.2	-341.7	7.0		B) ded bladder pump
	1113	10.16	2.0	6.45	24.1	2970	1.1	-348.8	6.8		C) non-ded bladder pump; or
	1115	10.18	2.5	6.45	24.0	2980	1.1	-350.5	6.3		*Standard groundwater sample:*
	1117	10.21	3.0	6.44	23.9	2970	1.0	-354.7	6.1		D) bailer due to limited column; or
	1120	10.23	3.5	6.45	23.9	2970	1.0	-351.6	6.0		E) recovery well cycling sample
↓	1123	10.25	4.0	6.47	23.9	2970	1.0	-353.0	3.7	↓ ↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1125	MW-93	10.25	6.47	23.9	2970	1.0	-353.0	3.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN + 5 VOL

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-43
Event: 1420
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in.	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: JA BB (168)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1400	ND	13.99	0.60	19.67	16.5	yes	yes	yes	yes		Weather: Clear 90°
6/17/20	1400	ND	14.00	0.00			"	"	"	"		Clear 100°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1405	14.05	0.5	6.72	28.9	3240	1.5	-338.7	10.1	Clear/Colorless	*Low-flow groundwater sample:*
↑	1407	14.09	1.0	6.68	29.8	3205	1.3	-338.9	9.7	↑	(A) peristaltic pump w/ ded tubing
↑	1410	14.11	1.5	6.67	29.7	3220	1.2	-341.9	7.7	↑	B) ded bladder pump
↑	1413	14.13	2.0	6.69	29.7	3220	1.1	-343.5	7.5	↑	C) non-ded bladder pump; or
↑	1415	14.14	2.5	6.71	29.4	3210	1.1	-343.8	6.6	↑	*Standard groundwater sample:*
↑	1417	14.15	3.0	6.71	29.2	3200	1.1	-345.7	6.5	↑	D) bailer due to limited column; or
↑	1420	14.16	3.5	6.72	29.1	3190	1.1	-346.6	6.2	↑	E) recovery well cycling sample
↓	1423	14.16	4.0	6.72	29.1	3190	1.1	-346.3	6.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, ML Juliet, TN
6/17/20	1425	MW-43	14.16	6.72	29.1	3190	1.1	-346.3	6.0	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-137
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (169)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1430	11.38	12.47	1.09	29.60	24.6	yes	yes	yes	yes		Weather: Clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0	Not sampled due to LNAPL 20.03							C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/16/20		MW-137								Per COC	Per COC	+ SVOC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-138
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AB (170)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1420	12.89	15.49	2.60	24.81	19.8	yes	yes	yes	yes		Weather: clear 90°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5	Not Sampled Due To LNAPL						20.03'	*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/16/20		MW-138								Per COC	Per COC	+ SVOC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-23
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(171)

Initials: TAB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1450	NA	16.94	0.00	23.10	17.9	Yes	Yes	Yes	Yes		Weather: clear 90°
6/17/20	1300	ND	16.28	0.00			"	"	"	"		clear 90°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1305	16.38	0.5	6.96	28.6	2820	1.6	-308.5	6.0	clear/yellow tint	Low-flow groundwater sample:
	1307	16.43	1.0	6.95	28.4	2800	1.3	-311.9	5.8	odor	(A) peristaltic pump w/ ded tubing
	1310	16.51	1.5	6.95	28.2	2790	1.2	-313.7	5.2		B) ded bladder pump
	1313	16.56	2.0	6.94	28.2	2770	1.2	-311.9	4.5		C) non-ded bladder pump; or
	1315	16.58	2.5	6.96	28.0	2770	1.2	-311.1	4.3		Standard groundwater sample:
	1317	16.60	3.0	6.95	28.0	2760	1.2	-309.7	3.4		D) bailer due to limited column; or
	1320	16.62	3.5	6.94	28.0	2760	1.1	-309.4	3.3		E) recovery well cycling sample
	1323	16.63	4.0	6.94	28.1	2760	1.1	-310.6	3.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1325	MW-23	16.63	6.94	28.1	2760	1.1	-310.6	3.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+Dup-TEL-01 (Same analysis)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-4
Event: 1H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AB (172)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1230	NP	12.67	5.00	27.27	22.2	yes	yes	yes	yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1235	12.91	0.5	6.88	27.1	3860	1.5	-234.7	8.0	Clear / Colorless	Low-flow groundwater sample:
	1237	12.91	1.0	6.86	26.6	3850	1.3	-236.8	7.6		(A) peristaltic pump w/ ded tubing
	1240	12.91	1.5	6.84	25.9	3840	1.1	-236.7	6.9		B) ded bladder pump
	1243	12.91	2.0	6.83	25.2	3840	1.0	-236.9	6.6		C) non-ded bladder pump; or
	1245	12.91	2.5	6.82	25.1	3840	0.9	-307.7	6.2		Standard groundwater sample:
	1247	12.91	3.0	6.80	24.8	3840	0.8	-307.8	6.1		D) bailer due to limited column; or
	1250	12.91	3.5	6.78	24.7	3830	0.7	-308.1	5.8		E) recovery well cycling sample
↓	1253	12.91	4.0	6.77	24.5	3830	0.7	-308.9	5.6	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1255	TEL-4	12.91	6.77	24.5	3830	0.7	-308.9	5.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓	1200	Dup-TEL-01	12.91	6.77	24.5	3830	0.7	-308.9	5.6	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-3
Event: 1H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (173)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1100	14.10	14.16	0.06	27.19	22.2	yes	yes	yes	yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1155		0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5	Not	Sampled	Due	To	LNAPL	20.03		B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0		(Needs	Sock	in	well)			D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20		TEL-3								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
				Not	Sampled							

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+EB-TEL-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-2
Event: 1H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (174)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1160	NP	15.20	0.00	27.20	22.1	yes	yes	yes	yes		Weather: Pt.cloudy 90°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1105	15.27	0.5	7.02	26.4	3290	1.2	-340.2	5.0	clear colorless	*Low-flow groundwater sample:*
	1107	15.27	1.0	7.01	26.5	3270	0.9	-341.7	4.8	light sheen	(A) peristaltic pump w/ ded tubing
	1110	15.27	1.5	6.98	26.1	3280	0.8	-345.5	4.5		B) ded bladder pump
	1113	15.27	2.0	6.96	25.9	3290	0.8	-348.4	4.3		C) non-ded bladder pump; or
	1115	15.27	2.5	6.95	25.9	3280	0.7	-350.7	4.1		*Standard groundwater sample:*
	1117	15.27	3.0	6.94	25.9	3280	0.7	-352.2	3.7		D) bailer due to limited column; or
	1120	15.27	3.5	6.92	25.8	3290	0.7	-353.8	3.6		E) recovery well cycling sample
	1123	15.27	4.0	6.92	25.8	3290	0.7	-354.1	3.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1125	TEL-2	15.27	6.92	25.8	3290	0.7	-354.1	3.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	1140	EB-TEL-01	NA							Same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+ Trip Blank - TEL-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-1
Event: 1H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAG (175)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1000	NP	14.52	0.00	27.00	22.9	yes	yes	yes	yes		Weather: P. Cloudy 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1005	14.76	0.5	7.32	25.1	2580	1.4	-261.0	6.8	clear	colorless
	1007	14.76	1.0	7.28	24.7	2570	1.2	-265.8	4.6		
	1010	14.76	1.5	7.25	24.5	2570	1.1	-270.2	4.3		
	1013	14.76	2.0	7.22	24.3	2550	0.9	-273.7	4.4		
	1015	14.76	2.5	7.21	24.2	2550	0.9	-275.2	4.0		
	1017	14.76	3.0	7.20	24.0	2550	0.8	-276.9	4.0		
	1020	14.76	3.5	7.20	24.0	2550	0.8	-278.8	4.2		
	1023	14.76	4.0	7.19	24.0	2550	0.8	-279.1	4.4		

Low-flow groundwater sample:
(A) peristaltic pump w/ ded tubing
B) ded bladder pump
C) non-ded bladder pump; or
Standard groundwater sample:
D) bailer due to limited column; or
E) recovery well cycling sample
F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1025	TEL-1	14.76	7.19	24.0	2550	0.8	-279.1	4.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-39
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (176)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1110	NP	15.22	0.00	25.44	20.4	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1115	15.33	0.5	7.29	27.7	3050	2.4	-284.1	6.1	clear / colorless	*Low-flow groundwater sample:*
	1117	15.33	1.0	7.28	27.7	3010	2.2	-287.4	5.3		(A) peristaltic pump w/ ded tubing
	1120	15.33	1.5	7.28	27.6	2970	1.9	-289.8	5.0		B) ded bladder pump
	1122	15.33	2.0	7.29	27.5	2940	1.7	-291.6	4.7		C) non-ded bladder pump; or
	1125	15.33	2.5	7.28	27.4	2900	1.6	-294.4	4.3		*Standard groundwater sample:*
	1127	15.33	3.0	7.27	27.4	2860	1.6	-295.8	4.4		D) bailer due to limited column; or
	1130	15.33	3.5	7.27	27.3	2840	1.5	-296.2	3.8		E) recovery well cycling sample
	1132	15.33	4.0	7.26	27.3	2830	1.5	-297.3	3.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	1135	MW-39	15.33	7.26	27.3	2830	1.5	-297.3	3.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-98
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (177)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	1330	NP	12.88 (12.88)	0.80	25.60	21.5	yes	yes	yes	yes		Weather: Clear 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1335	12.93	0.5	6.77	26.1	3260	1.6	-371.2	16.2	Clear / colorless	*Low-flow groundwater sample:*
	1337	12.93	1.0	6.74	26.0	3260	1.4	-372.5	8.7		(A) peristaltic pump w/ ded tubing
	1340	12.93	1.5	6.70	25.9	3230	1.2	-372.9	7.5		B) ded bladder pump
	1343	12.94	2.0	6.69	25.9	3230	1.1	-376.7	6.6		C) non-ded bladder pump; or
	1345	12.94	2.5	6.68	25.7	3220	0.9	-377.0	6.5		*Standard groundwater sample:*
	1347	12.95	3.0	6.68	25.6	3210	0.8	-377.1	6.4		D) bailer due to limited column; or
	1350	12.95	3.5	6.67	25.5	3210	0.8	-377.0	6.5		E) recovery well cycling sample
	1353	12.95	4.0	6.67	25.5	3210	0.8	-376.6	6.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1355	mw-98	12.95	6.67	25.5	3210	0.8	-376.6	6.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-10
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(178)

Well Inspection Information The former RW-10 is permanently covered by heavy steel box. Current RW-10 is the stand-pipe ~50' South of former RW-10 per Navajo. Initials: TAB

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Well Inspection: Casing	Well Inspection: Well Secured	Well Inspection: Label	Well Inspection: Other	Comments
6/16/20	900	NP	15.18	0.00	22.49 (22.49)	17.5	yes	yes	yes	yes		Weather: partly cloudy 70°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	905	15.19	0.5	7.08	23.2	2560	1.4	-301.8	2.8	clear colorless	*Low-flow groundwater sample:*
	907	15.19	1.0	7.07	22.8	2520	1.1	-307.4	2.7	odor	(A) peristaltic pump w/ ded tubing
	910	15.19	1.5	7.06	22.8	2520	1.1	-308.7	2.6		B) ded bladder pump
	913	15.19	2.0	7.07	21.9	2530	1.0	-316.2	2.4		C) non-ded bladder pump; or
	915	15.19	2.5	7.08	20.6	2530	1.0	-319.7	2.2		*Standard groundwater sample:*
	917	15.19	3.0	7.09	22.1	2520	0.9	-322.6	2.3		D) bailer due to limited column; or
	920	15.19	3.5	7.09	22.2	2520	0.9	-324.7	2.5		E) recovery well cycling sample
	923	15.19	4.0	7.10	22.3	2520	0.9	-326.5	2.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	925	RW-10	15.19	7.10	22.3	2520	0.9	-326.5	2.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-40
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB to SCD (179)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	900	NP	13.86	0.00	24.75	21.8	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	905	13.95	0.5	6.79	22.2	2810	2.5	-296.2	67.5	sl. Cloudy / w/ black particles	Low-flow groundwater sample:
	907	13.95	1.0	6.76	22.0	2750	1.9	-334.1	42.6	↓	(A) peristaltic pump w/ ded tubing
	910	13.95	1.5	6.74	21.9	2720	1.7	-351.9	21.9	Clear/colorless w/	B) ded bladder pump
	912	13.95	2.0	6.72	21.8	2700	1.6	-359.2	14.5	black particles	C) non-ded bladder pump; or
	915	13.95	2.5	6.71	21.8	2690	1.6	-361.5	12.3		Standard groundwater sample:
	917	13.95	3.0	6.71	21.7	2680	1.5	-363.4	10.2		D) bailer due to limited column; or
	920	13.95	3.5	6.70	21.7	2680	1.5	-364.9	9.8		E) recovery well cycling sample
↓	922	13.95	4.0	6.70	21.7	2670	1.5	-365.9	9.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/16/20	925	MW-40	13.95	6.70	21.7	2670	1.5	-365.9	9.1	Per COC	Per COC	(TRC)
↓		RO Field Program (2Q20)										
↓	925	MW-40	13.95	6.70	21.7	2670	1.5	-365.9	9.1			
										per COC	per COC	(wood)

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-41
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (180)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1015	NP	14.02	0.00	21.56	18.6	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1020	14.06	0.5	6.64	25.4	5070	2.9	-206.1	9.5	Clear / colorless	*Low-flow groundwater sample:*
↓	1022	14.06	1.0	6.62	25.3	5170	2.7	-208.3	9.1	↓	(A) peristaltic pump w/ ded tubing
	1025	14.06	1.5	6.60	25.3	5210	2.5	-211.4	8.8		B) ded bladder pump
	1027	14.06	2.0	6.59	25.3	5240	2.4	-213.7	8.7		C) non-ded bladder pump; or
	1030	14.06	2.5	6.58	25.2	5280	2.4	-215.5	8.0		*Standard groundwater sample:*
	1032	14.06	3.0	6.57	25.1	5290	2.3	-216.1	7.4		D) bailer due to limited column; or
	1035	14.06	3.5	6.57	25.1	5300	2.3	-216.9	7.2		E) recovery well cycling sample
↓	1037	14.06	4.0	6.56	25.1	5300	2.2	-217.4	6.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6-16-20	1040	MW-41	14.06	6.56	25.1	5300	2.2	-217.4	6.7	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-9
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(181)

Well Inspection Information The former RW-9 is permanently covered by heavy steel box, Current RW-9 is the stand-pipe ~50' East of former RW-9, per Navajo. Initials: RJM

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1210	NP	15.19	0.00	21.83	16.8	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1215	15.20	0.5	6.99	26.3	3630	1.9	-335.1	3.8	Clear / Colorless	*Low-flow groundwater sample:*
	1217	15.20	1.0	6.92	26.1	3620	1.8	-339.4	3.6		(A) peristaltic pump w/ ded tubing
	1220	15.20	1.5	6.88	26.1	3620	1.6	-341.5	3.3		B) ded bladder pump
	1222	15.20	2.0	6.85	26.1	3610	1.5	-342.7	3.0		C) non-ded bladder pump; or
	1225	15.20	2.5	6.84	26.0	3610	1.5	-344.1	2.9		*Standard groundwater sample:*
	1227	15.20	3.0	6.84	26.0	3610	1.4	-345.6	2.4		D) bailer due to limited column; or
	1230	15.20	3.5	6.83	26.0	3620	1.4	-346.0	1.7		E) recovery well cycling sample
	1232	15.20	4.0	6.83	26.0	3610	1.3	-346.8	1.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	1235	RW-9	15.20	6.83	26.0	3610	1.3	-346.8	1.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-42
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (182)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1610	NP	15.48	0.00	24.32	21.3	yes	yes	yes	yes		Weather: Clear 90°
6/17/20	1355	NP	15.40	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1400	15.51	0.5	7.25	28.1	5790	2.2	-316.8	7.3	Colorless / clear	*Low-flow groundwater sample:*
	1403	15.53	1.0	7.23	26.7	5920	2.4	-324.9	8.6		(A) peristaltic pump w/ ded tubing
	1405	15.53	1.5	6.90	26.3	5960	2.4	-325.7	6.8		B) ded bladder pump
	1407	15.53	2.0	6.89	25.9	6010	2.5	-329.6	6.2		C) non-ded bladder pump; or
	1410	15.53	2.5	6.84	25.4	6020	2.5	-333.7	5.7		*Standard groundwater sample:*
	1413	15.53	3.0	6.80	25.3	6040	2.4	-336.0	5.4		D) bailer due to limited column; or
	1415	15.53	3.5	6.78	25.2	6090	2.4	-339.1	5.9		E) recovery well cycling sample
↓	1417	15.53	4.0	6.76	25.2	6110	2.4	-341.8	5.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1420	MW-42	15.53	6.76	25.2	6110	2.4	-341.8	5.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+ DUP-RO-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-29
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(183)

Initials: TAB to SCD

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6/16/20	955	NP	20.76	0.00	24.22	19.2	Yes	Yes	Yes	Yes		Weather: PT. Cloudy 70's
						↳ lowered tubing intake as needed						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1000	20.78	0.5	6.97	23.5	4110	3.1	-282.6	15.5	clear/colorless	Low-flow groundwater sample:
↓	1002	20.78	1.0	6.93	23.2	4220	2.4	-292.5	13.1	↓	(A) peristaltic pump w/ ded tubing
	1005	20.78	1.5	6.91	23.1	4240	2.0	-305.9	11.5		B) ded bladder pump
	1007	20.78	2.0	6.90	23.1	4250	1.9	-314.5	10.2		C) non-ded bladder pump; or
	1010	20.78	2.5	6.89	23.0	4260	1.8	-320.5	9.8		Standard groundwater sample:
	1012	20.78	3.0	6.89	23.0	4260	1.8	-322.9	9.5		D) bailer due to limited column; or
	1015	20.78	3.5	6.88	23.0	4270	1.7	-324.1	9.1		E) recovery well cycling sample
↓	1017	20.78	4.0	6.88	23.1	4270	1.7	-325.8	8.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/16/20	1020	MW-29	20.78	6.88	23.1	4270	1.7	-325.8	8.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN (TRC)
↓												
		RO Field Program (2Q20)										
	1020	MW-29	20.78	6.88	23.1	4270	1.7	-325.8	8.9	Per COC	Per COC	(Wood)
↓	1000	DUP-RO-01	20.78	6.88	23.1	4270	1.7	-325.8	8.9	Same	Same	Same

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#16B
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (184)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	930	NP	17.10	0.00	17.70	14.7	Yes	Yes	Yes	Yes	*	Weather: Sunny 80's
											cracked pad	

* lowered sample intake to base

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20			0.5								*Low-flow groundwater sample:*
			1.0	No Purge Due to limited water column							(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	940	RW-#16B	17.49	6.79	25.5	4080	2.0	29.2	8.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN (Hole to fill all bottles)

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-30
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: JA KS

185

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1600	NP	15.90	0.00	23.50	NS	yes	yes	yes	yes		Weather: clear 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-30								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-56
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB to SCD (186)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1100	NP	16.67	0.00	26.50	21.4	Yes	Yes	Yes	Yes		Weather: Pt Cloudy 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/16/20	1105	16.71	0.5	6.81	23.3	3690	2.3	-172.5	4.2	Clear / colorless	*Low-flow groundwater sample:*
	1107	16.71	1.0	6.77	22.9	3720	1.7	-169.9	3.5		(A) peristaltic pump w/ ded tubing
	1110	16.71	1.5	6.74	22.7	3750	1.5	-164.7	3.1		B) ded bladder pump
	1112	16.71	2.0	6.72	22.5	3790	1.4	-161.2	2.9		C) non-ded bladder pump; or
	1115	16.71	2.5	6.71	22.4	3820	1.4	-159.5	2.5		*Standard groundwater sample:*
	1117	16.71	3.0	6.71	22.4	3840	1.3	-157.2	2.2		D) bailer due to limited column; or
	1120	16.71	3.5	6.70	22.3	3850	1.3	-156.1	2.0		E) recovery well cycling sample
↓	1122	16.71	4.0	6.70	22.3	3850	1.3	-156.0	1.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/16/20	1125	MW-56	16.71	6.70	22.3	3850	1.3	-156.0	1.9	Per COC	Per COC	(TRC)
		RD Field Program		(2020)								
↓	1125	MW-56	16.71	6.76	22.3	3850	1.3	-156.0	1.9	Per COC	Per COC	(Weed)

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located under yellow barricade

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-49
Event: 1H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (187)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6-16-20	1315	NP	12.95	0.00	33.07	27.8	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1320	13.16	0.5	6.70	27.4	2830	2.5	-363.1	24.3	clear / colorless	*Low-flow groundwater sample:*
	1322	13.17	1.0	6.65	27.3	2800	2.2	-366.4	14.2		(A) peristaltic pump w/ ded tubing
	1325	13.17	1.5	6.63	27.3	2780	2.0	-368.5	10.4		B) ded bladder pump
	1327	13.17	2.0	6.61	27.3	2760	1.9	-369.8	9.7		C) non-ded bladder pump; or
	1330	13.17	2.5	6.60	27.2	2750	1.7	-370.4	8.5		*Standard groundwater sample:*
	1332	13.17	3.0	6.60	27.2	2750	1.6	-372.1	8.2		D) bailer due to limited column; or
	1335	13.17	3.5	6.59	27.2	2740	1.5	-372.9	7.7		E) recovery well cycling sample
	1337	13.17	4.0	6.59	27.2	2740	1.5	-373.4	6.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6-16-20	1340	MW-49	13.17	6.59	27.2	2740	1.5	-373.4	6.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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May get covered with gravel)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-106
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(188)

Well Inspection Information *Located in-line with the Final letter "A" from "Ammonia" sign on gray tank with yellow ladder. Initials: RJM

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1600	NP	10.32	0.00	22.80	17.5	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1605	10.44	0.5	6.72	26.8	2730	2.7	-362.4	14.1	Clear / colorless	*Low-flow groundwater sample:*
|	1607	10.47	1.0	6.70	26.8	2770	2.4	-367.1	12.3	|	(A) peristaltic pump w/ ded tubing
|	1610	10.50	1.5	6.68	26.7	2800	2.1	-370.5	10.5	|	B) ded bladder pump
|	1612	10.52	2.0	6.67	26.7	2810	1.9	-372.4	9.0	|	C) non-ded bladder pump; or
|	1615	10.55	2.5	6.65	26.7	2810	1.8	-374.5	8.3	|	*Standard groundwater sample:*
|	1617	10.57	3.0	6.64	26.6	2820	1.7	-375.1	7.6	|	D) bailer due to limited column; or
|	1620	10.58	3.5	6.64	26.6	2830	1.6	-375.9	7.4	|	E) recovery well cycling sample
▽	1622	10.58	4.0	6.63	26.6	2830	1.6	-377.1	6.8	▽	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	1625	MW-106	10.58	6.63	26.6	2830	1.6	-377.1	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-45
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (189)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6/16/20	1630	NP	11.67	0.00	15.05	12.3	yes	yes	yes	yes		Weather: clear 90s
6/17/20	1455	NP	11.42	0.00			〃	〃	〃	〃		clear 100s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity		
6/17/20	1500	11.46	0.5	7.02	23.3	4550	1.6	-229.9	10.3	clear/colorless		Low-flow groundwater sample:
〃	1503	11.46	1.0	7.00	23.0	4560	1.4	-228.8	7.0	〃		(A) peristaltic pump w/ ded tubing
〃	1505	11.46	1.5	6.98	22.9	4540	1.3	-227.2	6.8	〃		B) ded bladder pump
〃	1507	11.46	2.0	6.95	22.9	4540	1.2	-226.4	4.4	〃		C) non-ded bladder pump; or
〃	1510	11.46	2.5	6.96	23.0	4540	1.1	-225.9	4.0	〃		Standard groundwater sample:
〃	1513	11.46	3.0	6.94	23.1	4530	1.3	-226.5	3.3	〃		D) bailer due to limited column; or
〃	1515	11.46	3.5	6.93	23.2	4530	1.4	-226.6	3.2	〃		E) recovery well cycling sample
↓	1517	11.46	4.0	6.93	23.2	4536	1.4	-227.8	3.0	↓	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6/17/20	1590	MW-45	11.46	6.93	23.2	4530	1.4	-227.8	3.0	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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SW corner of Lauder Bldg. Installed 2H19.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-139
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(190)

Initials: LJH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1120	NP	13.86	0.00	29.60	24.6	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1125	13.91	0.5	6.68	24.9	4160	1.4	-253.1	20.8	Colorless; clear;	*Low-flow groundwater sample:*
"	1127	13.91	1.0	6.67	24.2	4160	1.2	-272.1	18.2	Sl. odor	(A) peristaltic pump w/ ded tubing
"	1130	13.91	1.5	6.67	23.8	4160	1.3	-284.7	12.6	"	B) ded bladder pump
"	1132	13.91	2.0	6.67	23.6	4160	1.3	-287.4	10.1	"	C) non-ded bladder pump; or
"	1135	13.91	2.5	6.67	23.5	4170	1.4	-286.2	9.5	"	*Standard groundwater sample:*
"	1137	13.91	3.0	6.66	23.4	4180	1.4	-285.2	9.0	"	D) bailer due to limited column; or
"	1140	13.91	3.5	6.66	23.4	4180	1.5	-284.1	8.6	"	E) recovery well cycling sample
↓	1142	13.91	4.0	6.66	23.4	4190	1.5	-282.9	8.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6.16.20	1145	MW-139	13.91	6.66	23.4	4190	1.5	-282.9	8.2	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-50
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(191)

Well Inspection Information *Located in Artesia Wool laydown yard, N. of main warehouse.

Initials: CJH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1205	NP	14.85	0.00	28.22	24.)	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

*SC confirmed

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1210	14.86	0.5	6.83	26.5	8810	1.7	-70.4	10.7	Colorless; Clear	*Low-flow groundwater sample:*
	1212	14.86	1.0	6.82	25.5	9210	1.3	-61.3	9.6		(A) peristaltic pump w/ ded tubing
	1215	14.86	1.5	6.81	25.2	9220	1.1	-63.1	9.0		B) ded bladder pump
	1217	14.86	2.0	6.82	25.1	9230	1.1	-135.1	8.6		C) non-ded bladder pump; or
	1220	14.86	2.5	6.82	25.1	9150	1.1	-224.6	8.0		*Standard groundwater sample:*
	1222	14.86	3.0	6.83	25.0	8780	1.0	-241.2	7.5		D) bailer due to limited column; or
	1225	14.86	3.5	6.83	25.0	8320	1.0	-246.7	7.2		E) recovery well cycling sample
	1227	14.86	4.0	6.84	25.1	8110	1.1	-250.1	6.9		F) irrigation well grab sample
	1230	14.86	4.5	6.84	25.1	8010	1.1	-254.2	7.1		
↓	1232	14.86	5.0	6.84	25.1	7960	1.1	-257.1	6.8	↓	

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6.16.20	1235	MW-50	14.86	6.84	25.1	7960	1.1	-257.1	6.8	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample.

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-97
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (192)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1250	10.81	14.06	3.25	21.20	5' off	Yes	Yes	Yes	Yes		Weather: Clear, 80's
				*		base						

Well Purging Record * Thickness Confirmed, Sorbent Sock in Well

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	Sampled due to presence					(A) peristaltic pump w/ ded tubing
			1.5		of	LNAPL > 0.03'					B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
		MW-97								Per COC	Per COC	+ SVOC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-92
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (193)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1305	13.11	13.67	0.56	22.60	17.6	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	Sampled due to presence of					A) peristaltic pump w/ ded tubing
			1.5		LNAPL	≥ 0.03'.					B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-92								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-1
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information In "doghouse"; gauge/sample through 1-in guide-pipe

Initials: CJH (194)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1320	14.37	15.05	0.71	35.39	30.4	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	Sampled	due	to	presence		(A) peristaltic pump w/ ded tubing
			1.5		of	LNAPL	≥ 0.03'				B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-1								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-91
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (195)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1335	NP	12.78	0.00	25.35	17.9	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1340	12.93	0.5	6.43	26.2	4260	2.1	-368.5	21.0	Yellow color;	*Low-flow groundwater sample:*
"	1342	12.98	1.0	6.45	25.9	4110	1.3	-374.1	17.9	clear; strong odor	(A) peristaltic pump w/ ded tubing
"	1345	13.02	1.5	6.46	25.1	4010	1.0	-352.6	15.1	"	B) ded bladder pump
"	1347	13.06	2.0	6.46	24.9	3970	1.1	-354.0	12.6	"	C) non-ded bladder pump; or
"	1350	13.09	2.5	6.47	24.7	3930	1.2	-354.6	11.0	"	*Standard groundwater sample:*
"	1352	13.12	3.0	6.47	24.6	3910	1.3	-355.4	10.1	"	D) bailer due to limited column; or
"	1355	13.14	3.5	6.48	24.6	3890	1.4	-356.7	9.6	"	E) recovery well cycling sample
↓	1357	13.16	4.0	6.48	24.7	3870	1.4	-357.9	8.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6.16.20	1400	mw-91	13.16	6.48	24.7	3870	1.4	-357.9	8.8	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-90
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (196)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1420	NP	12.66	0.00	22.80	21.5	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1425	12.76	0.5	6.69	24.6	3790	1.4	-352.4	10.8	Colorless; clear;	*Low-flow groundwater sample:*
	1427	12.81	1.0	6.72	23.6	3790	1.1	-363.1	10.1	odor	(A) peristaltic pump w/ ded tubing
	1430	12.84	1.5	6.72	23.4	3780	1.0	-366.1	9.6		B) ded bladder pump
	1432	12.87	2.0	6.72	23.2	3770	0.9	-368.7	9.2		C) non-ded bladder pump; or
	1435	12.90	2.5	6.71	23.2	3750	0.9	-370.4	8.5		*Standard groundwater sample:*
	1437	12.92	3.0	6.71	23.1	3740	0.9	-372.6	8.0		D) bailer due to limited column; or
	1440	12.94	3.5	6.71	23.1	3730	1.0	-374.1	7.8		E) recovery well cycling sample
	1442	12.95	4.0	6.71	23.1	3730	1.0	-376.3	7.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	1445	MW-90	12.95	6.71	23.1	3730	1.0	-376.3	7.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-96
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (197)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1505	NP	12.85	0.00	25.57	21.2	Yes	Issue	NO	Yes		Weather: Clear, 90's
								*	Lock			

* Well was struck prior to 2H17 event. Hinge is broken and well not secure.

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1510	12.86	0.5	6.73	26.5	2430	1.4	-345.3	11.6	Colorless; Clear	*Low-flow groundwater sample:*
↓	1512	12.87	1.0	6.72	25.3	2340	1.1	-361.0	10.1	↓	(A) peristaltic pump w/ ded tubing
	1515	12.87	1.5	6.72	25.1	2300	0.9	-370.2	9.1		B) ded bladder pump
	1517	12.87	2.0	6.72	24.9	2270	0.9	-374.1	7.6		C) non-ded bladder pump; or
	1520	12.87	2.5	6.71	24.8	2240	1.0	-375.6	6.8		*Standard groundwater sample:*
	1522	12.87	3.0	6.71	24.7	2220	1.0	-372.2	6.4		D) bailer due to limited column; or
	1525	12.87	3.5	6.70	24.7	2210	1.1	-370.3	5.9		E) recovery well cycling sample
↓	1527	12.87	4.0	6.70	24.7	2210	1.1	-369.0	5.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	1530	MW-96	12.87	6.70	24.7	2210	1.1	-369.0	5.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL and collect groundwater sample

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-94
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (198)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1550	14.63	16.50	3.87 *	23.45	16.0	Yes	Yes	Yes	Yes		Weather: Clear, 90's

* Thickness Confirmed

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Curn. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity
			0.5							
			1.0							
			1.5		Not	Sampled due to Presence				
			2.0		of	LNAPL ≥ 0.03'				
			2.5							
			3.0							
			3.5							
			4.0							

Low-flow groundwater sample:
(A) peristaltic pump w/ ded tubing
B) ded bladder pump
C) non-ded bladder pump; or
Standard groundwater sample:
D) bailer due to limited column; or
E) recovery well cycling sample
F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-94								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-8
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information In "doghouse"; gauge/sample through 1-in. guide-pipe.

Initials: CJH (199)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1600	13.62	15.72	2.10	37.22	35.2	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not sampled due to presence						(A) peristaltic pump w/ ded tubing
			1.5		of LNAPL ≥ 0.03'.						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
										Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-67
Event: iH20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (200)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1610	12.18	12.23	0.05	27.30	19.9	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not sampled due to presence						(A) peristaltic pump w/ ded tubing
			1.5		of LNAPL ≥ 0.03'.						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-67								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN + SVOC

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-95
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (201)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1620	NP	14.86	0.00	25.37	20.4	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1625	14.89	0.5	6.78	26.7	2900	1.2	-289.5	6.1	Colorless; clear;	*Low-flow groundwater sample:*
|	1627	14.89	1.0	6.77	25.7	2900	1.0	-299.1	5.6	sl. odor	(A) peristaltic pump w/ ded tubing
|	1630	14.89	1.5	6.76	25.0	2890	0.9	-306.1	5.0	↓	B) ded bladder pump
|	1632	14.89	2.0	6.75	24.9	2890	0.8	-309.6	4.5	↓	C) non-ded bladder pump; or
|	1635	14.89	2.5	6.74	24.8	2880	0.7	-311.9	4.7	↓	*Standard groundwater sample:*
|	1637	14.89	3.0	6.74	24.7	2870	0.7	-313.7	4.2	↓	D) bailer due to limited column; or
|	1640	14.89	3.5	6.73	24.7	2870	0.6	-315.6	3.6	↓	E) recovery well cycling sample
↓	1642	14.89	4.0	6.73	24.6	2860	0.6	-317.1	3.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6.16.20	1645	MW-95	14.89	6.73	24.6	2860	0.6	-317.1	3.1	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-7
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(202)

Well Inspection Information In "doghouse"; gauge/sample through 1-in guide-pipe. Initials: CJH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1700	NP	13.84	0.00	37.00	32.0	Yes	Yes	Yes	Yes		Weather: Clear, 90's
6.17.20	1155	NP	13.86	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1200	NM	0.5	6.66	26.2	2550	1.9	-356.1	15.1	Black Color; Clear;	Low-flow groundwater sample:
"	1202	"	1.0	6.65	25.9	2520	1.7	-355.0	13.0	black particles; odor	(A) peristaltic pump w/ ded tubing
"	1205	"	1.5	6.65	25.7	2490	1.5	-356.8	11.9	Sheen	B) ded bladder pump
"	1207	"	2.0	6.65	25.6	2460	1.4	-359.2	10.3	"	C) non-ded bladder pump; or
"	1210	"	2.5	6.64	25.5	2440	1.3	-362.9	9.7	"	Standard groundwater sample:
"	1212	"	3.0	6.64	25.5	2420	1.2	-364.6	9.4	"	D) bailer due to limited column; or
"	1215	"	3.5	6.64	25.4	2410	1.2	-366.8	9.0	"	E) recovery well cycling sample
↓	1217	↓	4.0	6.64	25.4	2410	1.2	-368.5	8.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6.17.20	1220	RW-7	NM	6.64	25.4	2410	1.2	-368.5	8.3	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-34A
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (203)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1706	NP	13.40	0.00	19.26	16.8	Yes	Yes	No	Yes		Weather: Clear, 90's
6.17.20	1245	NP	13.44	0.00					Lock			

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1250	13.56	0.5	6.52	26.6	2470	2.6	-353.6	7.9	Colorless; clear;	*Low-flow groundwater sample:*
	1252	13.56	1.0	6.52	25.9	2470	2.1	-360.1	7.4	odor	(A) peristaltic pump w/ ded tubing
	1255	13.57	1.5	6.53	25.1	2450	1.9	-364.2	6.8		B) ded bladder pump
	1257	13.57	2.0	6.53	24.8	2440	1.7	-363.7	6.5		C) non-ded bladder pump; or
	1300	13.57	2.5	6.53	24.7	2420	1.5	-364.2	6.1		*Standard groundwater sample:*
	1302	13.57	3.0	6.54	24.7	2410	1.4	-366.1	5.6		D) bailer due to limited column; or
	1305	13.57	3.5	6.54	24.6	2400	1.4	-368.9	5.4		E) recovery well cycling sample
↓	1307	13.57	4.0	6.54	24.6	2400	1.4	-370.1	5.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1310	NCL-34A	13.57	6.54	24.6	2400	1.4	-370.1	5.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-33
Event: 1420
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (204)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1713	NP	12.10	0.00	19.60	17.7	Yes	Yes	Yes	Yes		Weather: Clear, 90's
6.17.20	1330	NP	12.12	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1335	12.21	0.5	6.42	26.2	4900	1.9	-223.7	159.0	Orange tint;	*Low-flow groundwater sample:*
↓	1337	12.27	1.0	6.43	25.1	4940	1.6	-230.1	65.0	sl. cloudy; orange	(A) peristaltic pump w/ ded tubing
↓	1340	12.32	1.5	6.44	24.6	4910	1.4	-233.4	53.0	Particles	B) ded bladder pump
↓	1342	12.36	2.0	6.44	24.4	4850	1.3	-237.5	39.4	↓	C) non-ded bladder pump; or
↓	1345	12.40	2.5	6.45	24.5	4830	1.2	-238.4	27.4	Colorless; clear;	*Standard groundwater sample:*
↓	1347	12.43	3.0	6.44	24.6	4810	1.2	-239.1	20.1	orange Particles	D) bailer due to limited column; or
↓	1350	12.46	3.5	6.44	24.6	4790	1.1	-240.6	14.1	↓	E) recovery well cycling sample
↓	1352	12.48	4.0	6.45	24.7	4780	1.1	-241.7	9.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6.17.20	1355	NCL-33	12.48	6.45	24.7	4780	1.1	-241.7	9.2	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-44
Event: iH20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (205)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1715	NP	11.85	0.00	21.34	16.3	Yes	Yes	Yes	Yes		Weather: Clear, 80's
6.17.20	1110	NP	11.86	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1115	11.89	0.5	6.59	25.5	3230	3.4	-240.1	10.6	Colorless; clear	*Low-flow groundwater sample:*
↓	1117	11.89	1.0	6.58	24.9	3230	2.3	-250.8	9.4	↓	(A) peristaltic pump w/ ded tubing
	1120	11.89	1.5	6.58	24.5	3210	2.0	-262.4	9.0		B) ded bladder pump
	1122	11.89	2.0	6.58	24.3	3190	1.9	-268.6	8.7		C) non-ded bladder pump; or
	1125	11.89	2.5	6.57	24.2	3180	1.8	-271.7	8.2		*Standard groundwater sample:*
	1127	11.89	3.0	6.57	24.2	3180	1.8	-274.7	7.7		D) bailer due to limited column; or
	1130	11.89	3.5	6.56	24.3	3170	1.9	-277.2	7.4		E) recovery well cycling sample
↓	1132	11.89	4.0	6.56	24.3	3170	1.9	-280.4	6.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1135	NCL-44	11.89	6.56	24.3	3170	1.9	-280.4	6.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+EB-NCL-01 (same analysis)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-32
Event: 1H20
Area of Concern: NCL

Completion:	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (206)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1725	NP	12.26	0.00	20.04	18.1	Yes	Yes	Yes	Yes		Weather: Clear, 80's
6.17.20	1025	NP	12.30	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1030	12.41	0.5	6.95	24.8	3200	1.6	-146.9	21.9	Colorless; Clear	*Low-flow groundwater sample:*
↓	1032	12.42	1.0	6.94	23.8	3180	1.4	-148.0	18.6	↓	(A) peristaltic pump w/ ded tubing
	1035	12.43	1.5	6.89	23.4	3170	1.3	-145.0	16.1		B) ded bladder pump
	1037	12.43	2.0	6.86	23.2	3180	1.2	-141.2	14.9		C) non-ded bladder pump: or
	1040	12.43	2.5	6.83	23.1	3190	1.2	-137.1	12.2		*Standard groundwater sample:*
	1042	12.44	3.0	6.81	23.1	3190	1.1	-134.0	10.3		D) bailer due to limited column; or
	1045	12.44	3.5	6.80	23.0	3200	1.1	-130.6	9.2		E) recovery well cycling sample
↓	1047	12.44	4.0	6.79	23.0	3200	1.1	-127.7	8.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1050	NCL-32	12.44	6.79	23.0	3200	1.1	-127.7	8.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1100	EB-NCL-01	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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*Access on foot

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-108
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (207)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1730	NP	15.30	0.00	27.74	22.5	Yes	Yes	Yes	Yes		Weather: Clear, 80's
6.17.20	900	NP	15.40	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	905	15.51	0.5	6.68	26.1	1846	1.4	-358.1	19.8	Yellow Color;	*Low-flow groundwater sample:*
|	907	15.60	1.0	6.73	25.5	1811	1.3	-366.2	17.0	Clear; odor	(A) peristaltic pump w/ ded tubing
|	910	15.66	1.5	6.75	25.3	1796	1.2	-368.7	15.1	|	B) ded bladder pump
|	912	15.71	2.0	6.76	25.1	1784	1.2	-370.2	14.2	|	C) non-ded bladder pump; or
|	915	15.75	2.5	6.76	25.0	1775	1.2	-372.6	13.6	|	*Standard groundwater sample:*
|	917	15.79	3.0	6.77	24.9	1770	1.3	-374.5	10.4	|	D) bailer due to limited column; or
|	920	15.82	3.5	6.77	24.9	1765	1.3	-376.1	9.6	|	E) recovery well cycling sample
↓	922	15.85	4.0	6.78	24.8	1761	1.3	-378.9	9.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6.17.20	925	MW-108	15.85	6.78	24.8	1761	1.3	-378.9	9.1	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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SW of NCL field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-31
Event: iH20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (208)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1735	NP	12.17	0.00	20.16	17.4	Issue	Yes	Yes	Yes		Weather: Clear, 80's
6.17.20	940	NP	12.23				*					

Well Purging Record

*Comet Rt Cap and close lid

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	945	12.39	0.5	6.87	27.1	3100	1.9	-294.6	9.0	Colorless; Clear	*Low-flow groundwater sample:*
"	947	12.41	1.0	6.86	26.9	3030	1.7	-294.2	8.6	"	(A) peristaltic pump w/ ded tubing
"	950	12.41	1.5	6.85	26.5	2950	1.6	-290.4	8.2	"	B) ded bladder pump
"	952	12.41	2.0	6.84	26.4	2940	1.5	-286.2	7.9	"	C) non-ded bladder pump; or
"	955	12.41	2.5	6.84	26.3	2920	1.4	-285.1	7.4	"	*Standard groundwater sample:*
"	957	12.41	3.0	6.83	26.2	2910	1.4	-282.0	6.9	"	D) bailer due to limited column; or
"	1000	12.41	3.5	6.83	26.2	2900	1.3	-280.3	6.6	"	E) recovery well cycling sample
↓	1002	12.41	4.0	6.82	26.1	2890	1.3	-278.6	6.3	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1005	NCL-31	12.41	6.82	26.1	2890	1.3	-278.6	6.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record (Not in "sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-19
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (209)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1740	NP	12.45	0.00	22.08	NS	Yes	Yes	Issue *	Yes		Weather: Clear, 90's

* Not Secure; needs protective casing

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-19								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-55
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH to BPH (210)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6-16-20	1015	NP	15.02	0.00	26.85	21.7	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umhc/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6-16-20	1020	15.06	0.5	6.71	20.4	3340	3.0	67.5	9.8	Colorless, clear	*Low-flow groundwater sample:*
	1023	15.06	1.0	6.64	19.6	3360	2.9	69.7	9.2	↓	(A) peristaltic pump w/ ded tubing
↓	1025	15.06	1.5	6.61	19.3	3340	2.7	70.3	8.8	↓	B) ded bladder pump
	1028	15.06	2.0	6.59	19.2	3320	2.4	71.0	8.5	↓	C) non-ded bladder pump; or
	1030	15.06	2.5	6.59	19.0	3310	2.2	71.4	8.3	↓	*Standard groundwater sample:*
	1033	15.06	3.0	6.59	18.9	3300	2.0	71.8	8.0	↓	D) bailer due to limited column; or
	1035	15.06	3.5	6.58	18.9	3290	1.9	72.1	7.9	↓	E) recovery well cycling sample
↓	1038	15.06	4.0	6.58	18.8	3280	1.9	72.3	7.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umhc/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
6-16-20	1040	MW-55	15.06	6.58	18.8	3280	1.9	72.3	7.7	Per COC	Per COC	(TZL)
↓												
		RD Fields Program (2020)										
↓	1040	MW-55	15.06	6.58	18.8	3280	1.9	72.3	7.7	Per COC	Per COC	(Wood)

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03"; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#17A
Event: 1H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Bell-shaped PVC stickup w/ PVC slip cap

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AJS (211)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1755	NP	14.54	0.00	16.01	~14.0	Yes	Yes	Yes	Yes		Weather: Partly Cloudy, 100's
6/17/20	1445	NP	14.56	0.00		(~ lowered intake to base of well)						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6/17/20	1450	14.61	0.5	8.03	26.5	7990	3.1	-112.4	19.4	colorless / clear	*Low-flow groundwater sample:*
↓	1453	14.68	1.0	8.02	23.6	8490	2.9	-102.4	11.0	↓	(A) peristaltic pump w/ ded tubing
	1455	14.70	1.5	8.01	22.6	8370	3.0	-95.2	7.6		B) ded bladder pump
	1457	14.71	2.0	8.02	22.3	8300	3.0	-89.4	5.8		C) non-ded bladder pump; or
	1500	14.71	2.5	8.01	22.3	8260	3.0	-86.3	5.0		*Standard groundwater sample:*
	1503	14.71	3.0	8.01	22.3	8270	2.9	-83.9	3.9		D) bailer due to limited column; or
	1505	14.71	3.5	8.02	22.3	8270	2.9	-80.6	4.1		E) recovery well cycling sample
↓	1507	14.71	4.0	8.02	22.3	8270	2.9	-77.5	3.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6/17/20	1510	RW-#17A	14.71	8.02	22.3	8270	2.9	-77.5	3.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (212)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1749	NP	14.14	0.00	22.20	20.2	Yes	Yes	Yes	Yes		Weather: Clear, 100's
6.17.20	1415	NP	14.17	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.17.20	1420	14.24	0.5	6.81	24.9	3390	1.8	-221.6	6.7	Colorless; clear	*Low-flow groundwater sample:*
↓	1422	14.24	1.0	6.80	24.6	3350	1.6	-227.6	6.2	↓	(A) peristaltic pump w/ ded tubing
↓	1425	14.24	1.5	6.79	24.5	3330	1.5	-233.4	5.5	↓	B) ded bladder pump
↓	1427	14.24	2.0	6.76	24.4	3310	1.4	-236.4	5.4	↓	C) non-ded bladder pump; or
↓	1430	14.24	2.5	6.75	24.3	3300	1.4	-237.5	4.9	↓	*Standard groundwater sample:*
↓	1432	14.24	3.0	6.75	24.3	3290	1.3	-239.1	4.5	↓	D) bailer due to limited column; or
↓	1435	14.24	3.5	6.74	24.2	3290	1.3	-240.6	4.4	↓	E) recovery well cycling sample
↓	1437	14.24	4.0	6.74	24.3	3280	1.3	-242.5	3.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.17.20	1440	MW-18	14.24	6.74	24.3	3280	1.3	-242.5	3.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-54A
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (213)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	930	NP	14.77	0.00	31.30	23.6	Yes	Yes	Yes	Yes		Weather: clear, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	935	14.78	0.5	6.46	24.4	2590	2.7	65.8	9.8	Colorless; clear	*Low-flow groundwater sample:*
"	937	14.79	1.0	6.48	23.6	2610	2.2	73.7	9.2		(A) peristaltic pump w/ ded tubing
"	940	14.79	1.5	6.50	23.1	2600	2.0	73.6	8.5		B) ded bladder pump
"	942	14.79	2.0	6.51	22.9	2590	1.9	70.7	8.1		C) non-ded bladder pump; or
"	945	14.79	2.5	6.51	22.8	2590	1.8	68.8	7.8		*Standard groundwater sample:*
"	947	14.79	3.0	6.52	22.8	2580	1.8	67.1	7.5		D) bailer due to limited column; or
"	950	14.79	3.5	6.52	22.7	2580	1.7	66.2	6.2		E) recovery well cycling sample
↓	952	14.79	4.0	6.53	22.7	2580	1.7	65.0	5.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
6.16.20	955	MW-54A	14.79	6.53	22.7	2580	1.7	65.0	5.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge Only

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-54B
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

214

Initials: CJH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1010	NP	14.83	0.00	46.80	41.8	Yes	Yes	Yes			Weather: pt. cloudy, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-54B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Dup - NCL-01 (same analysis)
+ Trip Blank - NCL-01 ✓

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-49
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (215)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
6.16.20	1020	NP	18.18	0.00	32.18	27.2	Yes	Yes	Yes	Yes		Weather: Pt. Cloudy, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
6.16.20	1025	18.20	0.5	6.92	24.4	3640	2.5	107.5	7.2	Colorless; Clear	*Low-flow groundwater sample:*
↓	1027	18.20	1.0	6.90	23.7	3670	2.1	119.9	6.5	↓	(A) peristaltic pump w/ ded tubing
↓	1030	18.20	1.5	6.89	23.4	3670	2.0	124.0	6.1	↓	B) ded bladder pump
↓	1032	18.20	2.0	6.89	23.3	3660	2.0	126.7	5.7	↓	C) non-ded bladder pump; or
↓	1035	18.20	2.5	6.88	23.3	3650	2.0	128.4	5.0	↓	*Standard groundwater sample:*
↓	1037	18.20	3.0	6.88	23.2	3640	1.9	130.1	4.8	↓	D) bailer due to limited column; or
↓	1040	18.20	3.5	6.87	23.2	3640	1.9	132.6	4.5	↓	E) recovery well cycling sample
↓	1042	18.20	4.0	6.87	23.3	3630	1.9	133.7	4.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
6.16.20	1045	NCL-49	18.20	6.87	23.3	3630	1.9	133.7	4.2	Per COC	Per COC	
↓												
↓												
↓												
↓	1000	Dup-NCL-01	18.20	6.87	23.3	3630	1.9	133.7	4.2	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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mw-53R reinstalled - March 2020, per TRC

Not received yet, 1H20

Monitoring Well Purging and Sampling Record

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: MW-53R
Event: 1H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (216)

Well Inspection Information ~15' S. of 70 mile marker (285 north-bound)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
6.16.20	1110	NM	NM	NM	~~23.60~~	~~19.6~~	NA	NA	NA	NA		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity
			0.5							
			1.0		well	still	unable	to be	located	due
			1.5		to	construction	activity	"MW-53R"	has	
			2.0		not	been	drilled	per	Navajo's	Deming
			2.5							
			3.0							
			3.5							
			4.0							

mw-53 scheduled for replacement "MW-53R"

[mw-53 was lost due to construction

when installed, mw-53 to "mw-53R" (planned for re-install)

will have new TD & Intake !!!

SLu 3-12-20

Low-flow groundwater sample:
(A) peristaltic pump w/ ded tubing
B) ded bladder pump
C) non-ded bladder pump; or
Standard groundwater sample:
D) bailer due to limited column; or
E) recovery well cycling sample
F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
		mw-53R								Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL and collect groundwater sample

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Instrument Calibration Log

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Hydrologic Monitoring
for TRC
Houston, Texas

Date	Time	pH Hanna (Std. units)	Specific Conductivity Hanna (umho/cm)	Dissolved Oxygen Hanna (Slope Cal. in saturated air)	Turbidity Lamotte (NTU)	ORP Hanna HI 7020 Soln (200-275 mV)	PID Thermo Environmental 100 ppm Isobutylene	Initials / Comments
6/15/20	1545	4.01/7.00	1,000	100 %	10.0	241.4	NA	SCH
6/16/20	640	4.01/7.00	1,000	100%	10.0	243.0	NA	SCH
6/16/20	645	4.01/7.00	1,000	100%	10.0	249.8	NA	BB
6/16/20	649	4.01/7.00	1,000	100%	10.0	237.1	NA	CJH
6-16-20	652	4.01/7.00	1,000	100%	10.0	241.2	NA	MDB
6-16-20	655	4.01/7.00	1,000	100%	10.0	239.6	NA	SCD
6-16-20	659	4.01/7.00	1,000	100%	10.0	224.9	NA	BRH
6.16.20	701	4.01/7.00	1,000	100%	10.0	226.1	NA	CJH
6.16.20	705	4.01/7.00	1,000	100%	10.0	248.9	NA	TATB
6-16-20	708	4.01/7.00	1,000	100%	10.0	221.7	NA	QSD
6.16.20	711	4.01/7.00	1,000	100%	10.0	212.9	NA	RJM
6/17/20	645	4.01/7.00	1,000	100%	10.0	241.7	NA	SCH
6/17/20	652	4.01/7.00	1,000	100%	10.0	231.9	NA	MDB
6.17.20	655	4.01/7.00	1,000	100%	10.0	226.1	NA	CJH
6-17-20	658	4.01/7.00	1,000	100%	10.0	222.7	NA	BRH
6-17-20	700	4.01/7.00	1,000	100%	10.0	237.8	NA	MDB
6/17/20	706	4.01/7.00	1,000	100%	10.0	221.7	N/A	QSD
6/17/20	708	4.01/7.00	1,000	100%	10.0	229.8	NA	BB
6-17-20	711	4.01/7.00	1,000	100%	10.0	236.7	NA	SCD
6.17.20	714	4.01/7.00	1,000	100%	10.0	250.1	NA	TATB
6.17.20	717	4.01/7.00	1,000	100%	10.0	212.3	NA	RJM

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DAY 1

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (Lab only)
MW-6A	Grab	GW		6/16/20	1055	10	X	X	X	X	X	X						
MW-85	Grab	GW				10	X	X	X	X	X	X						
MW-86	Grab	GW				11	X	X	X		X	X	X	X				
MW-120	Grab	GW		6/16/20	1145	10	X	X	X	X	X	X						
MW-121	Grab	GW		6/16/20	1230	10	X	X	X	X	X	X						
MW-84	Grab	GW				10	X	X	X	X	X	X						
MW-122	Grab	GW				10	X	X	X	X	X	X						
MW-81	Grab	GW				10	X	X	X	X	X	X						
MW-80	Grab	GW				10	X	X	X	X	X	X						
MW-79	Grab	GW				10	X	X	X	X	X	X						

Chain of Custody Page 1 of 6

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Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP ___ Y ___ N
COC Signed/Accurate: ___ Y ___ N
Bottles arrive intact: ___ Y ___ N
Correct bottles used: ___ Y ___ N
Sufficient volume sent: ___ Y ___ N
If Applicable
VOA Zero Headspace: ___ Y ___ N
Preservation Correct/Checked: ___ Y ___ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

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TRC Solutions - Austin, TX
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Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 6

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Phone: 800-767-5859
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L #
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-82	Grab	GW				10	X	X	X	X	X	X						
MW-74	Grab	GW		6/16/20	1315	10	X	X	X	X	X	X						
MW-73	Grab	GW		6/16/20	1420	10	X	X	X	X	X	X						
MW-2A	Grab	GW				10	X	X	X	X	X	X						
MW-72	Grab	GW		6/16/20	1650	10	X	X	X	X	X	X						
OCD-6	Grab	GW		6/16/20	1605	10	X	X	X	X	X	X						
OCD-7AR	Grab	GW		6/16/20	1510	10	X	X	X	X	X	X						
MW-76	Grab	GW				10	X	X	X	X	X	X						
MW-77	Grab	GW				10	X	X	X	X	X	X						
MW-78	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: ___°C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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TRC Solutions - Austin, TX
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Austin, TX 78752

Billing Information:
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apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 6

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L#

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-75	Grab	GW				10	X	X	X	X	X	X						
MW-83	Grab	GW				10	X	X	X	X	X	X						
MW-3	Grab	GW				10	X	X	X	X	X	X						
MW-88	Grab	GW		6/16/20	1725	10	X	X	X	X	X	X						
MW-22A	Grab	GW				10	X	X	X	X	X	X						
MW-10	Grab	GW				10	X	X	X	X	X	X						
MW-123	Grab	GW				10	X	X	X	X	X	X						
MW-4A	Grab	GW		6/16/20	1555	10	X	X	X	X	X	X						
MW-5A	Grab	GW		6/16/20	1450	10	X	X	X	X	X	X						
MW-7A	Grab	GW		6/16/20	1345	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓
Rush? (Lab MUST Be Notified) ___ Same Day ___ Next Day ___ Two Day ___ Three Day ___ Five Day ___ 5 Day (Rad Only) ___ 10 Day (Rad Only)
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 6

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
OCD-8A	Grab	GW		6/16/20	1250	11	X	X	X		X	X	X	X				
MW-1R	Grab	GW				8	X	X		X	X	X						
MW-1S	Grab	GW				10	X	X	X	X	X	X						
OCD-1R	Grab	GW				10	X	X	X	X	X	X						
OCD-2A	Grab	GW				10	X	X	X	X	X	X						
OCD-3	Grab	GW				10	X	X	X	X	X	X						
OCD-4	Grab	GW				10	X	X	X	X	X	X						
MW-11A	Grab	GW				10	X	X	X	X	X	X						
OCD-5	Grab	GW				10	X	X	X	X	X	X						
MW-87	Grab	GW		6/16/20	1545	8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ✓ FedEx ___ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: ___°C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
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Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Chain of Custody Page 5 of 6

Pace Analytical
National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-18A	Grab	GW		6/16/20	1630	9	X	X			X	X	X	X				
MW-70	Grab	GW		6/16/20	1800	10	X	X	X	X	X	X						
MW-124	Grab	GW		6/16/20	1710	10	X	X	X	X	X	X						
DUP-EP-01	Grab	GW		6/16/20	1200	10	X	X	X	X	X	X						
DUP-EP-02	Grab	GW				10	X	X	X	X	X	X						
DUP-EP-03	Grab	GW		~~6/16/20~~	~~1320~~ SW	10	X	X	X	X	X	X						
EB-EP-01	Grab	GW		6/16/20	1330	10	X	X	X	X	X	X						
EB-EP-02	Grab	GW		6/16/20	1725	10	X	X	X	X	X	X						
EB-EP-03	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						
EB-EP-04	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	0800	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: °C Bottles Received:
Date: Time:

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

Page 422 of 2498

TRC Solutions - Austin, TX
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Pres Chk

Report to: **Julie Speer**

Email. To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
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___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

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Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~Trip Blank EP-01~~ SU	Grab	GW				1	X											
Trip Blank-EP-02	Grab	GW		6/16/20	—	1	X											
Trip Blank-EP-03	Grab	GW				1	X											
Trip Blank-EP-04	Grab	GW		6/16/20	—	1	X											

Chain of Custody Page 5 of 5

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L#
Table #
Acctnum: TRCATX
Template: T133265
Prelogin: P763440
TSR: 526
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier ____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

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DAY 1

TRC Solutions - Austin, TX
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Billing Information:
Accounts Payable
21 Griffin Road North
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Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 13

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National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RW-#15C	Grab	GW				8	X	X		X	X	X						
MW-48	Grab	GW				10	X	X	X	X	X	X						
MW-130	Grab	GW				10	X	X	X	X	X	X						
KWB-4	Grab	GW				8	X	X		X	X	X						
RW-19	Grab	GW				8	X	X		X	X	X						
MW-52	Grab	GW				11	X	X	X		X	X	X	X				
MW-109	Grab	GW				10	X	X	X	X	X	X						
MW-110	Grab	GW				10	X	X	X	X	X	X						
RW-12R	Grab	GW				8	X	X		X	X	X						
RW-113	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx ✓ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 424 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓
Rush? (Lab MUST Be Notified) ____ Same Day ____ Five Day ____ Next Day ____ 5 Day (Rad Only) ____ Two Day ____ 10 Day (Rad Only) ____ Three Day
Date Results Needed
Quote #

Chain of Custody Page 2 of 13

Pace Analytical® National Center for Testing & Innovation
32065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Pres Chk	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
KWB-8	Grab	GW				9		X	X			X	X	X	X				
RW-22	Grab	GW				8		X	X		X	X	X						
RW-20A	Grab	GW				8		X	X		X	X	X						
RW-20B	Grab	GW				8		X	X		X	X	X						
RW-13R	Grab	GW				8		X	X		X	X	X						
RW-14R	Grab	GW				8		X	X		X	X	X						
MW-133	Grab	GW				10		X	X	X	X	X	X						
MW-134	Grab	GW				10		X	X	X	X	X	X						
RA-4798	Grab	GW				5		X				X	X						
RA-4196	Grab	GW				5		X				X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS ✓FedEx __Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 425 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 13

Pace Analytical®
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RA-3156	Grab	GW				5	X				X	X						
RA-313	Grab	GW				5	X				X	X						
KWB-7	Grab	GW				9	X	X			X	X	X	X				
MW-135	Grab	GW				10	X	X	X	X	X	X						
KWB-11A	Grab	GW				11	X	X	X		X	X	X	X				
KWB-11B	Grab	GW				11	X	X	X		X	X	X	X				
MW-115	Grab	GW		6/16/20	920	10	X	X	X	X	X	X						
MW-114	Grab	GW		6/16/20	1020	10	X	X	X	X	X	X						
MW-117	Grab	GW		6/16/20	1115	10	X	X	X	X	X	X						
MW-118	Grab	SS		6/16/20	1020	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 426 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
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21 Griffin Road North
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately
Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Pres Chk

Chain of Custody Page 4 of 13

Pace Analytical
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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-119	Grab	GW		6/16/20	945	10	X	X	X	X	X	X						
MW-136	Grab	GW				11	X	X	X		X	X	X	X				
MW-126A	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						
MW-126B	Grab	GW		6/16/20	1425	10	X	X	X	X	X	X						
MW-127	Grab	GW				10	X	X	X	X	X	X						
MW-129	Grab	GW				10	X	X	X	X	X	X						
RW-#18A	Grab	GW		~~6/16/20~~	~~950~~ SU	6	X			X	X	X						
KWB-1A	Grab	GW				9	X	X			X	X	X	X				
KWB-10R	Grab	GW				8	X	X		X	X	X						
MW-131	Grab	GW		6/16/20	1320	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: RW-#18A replacement sample (6/19/20, 10:30) SU
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	0800	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:

Date: Time:

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 427 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, 5te 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
KWB-5	Grab	GW				8	X	X		X	X	X						
MW-111	Grab	GW				10	X	X	X	X	X	X						
KWB-6	Grab	GW				11	X	X		X	X	X				X		
MW-112	Grab	GW				10	X	X	X	X	X	X						
MW-132	Grab	GW				10	X	X	X	X	X	X						
MW-57	Grab	GW		6/16/20	1525	10	X	X	X	X	X	X						
RW-#11-0	Grab	GW				8	X	X		X	X	X						
KWB-12A	Grab	GW		6/16/20	1305	11	X	X	X		X	X	X	X				
KWB-12B	Grab	GW		6/16/20	1353	11	X	X	X		X	X	X	X				
KWB-2R	Grab	GW		~~6/16/20~~		8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___
Tracking #

Relinquished by : (Signature) Scott Ude
Date: 6/17/20
Time: 0800
Received by: (Signature)

Relinquished by : (Signature)
Date:
Time:
Received by: (Signature)

Relinquished by : (Signature)
Date:
Time:
Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: °C Bottles Received:
Date: Time:

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Chain of Custody Page 5 of 13

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #:
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 428 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 6 of 13

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Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-58	Grab	GW				9	X	X			X	X	X	X				
KWB-13	Grab	GW		6/16/20	1755	9	X	X			X	X	X	X				
MW-103	Grab	GW		6/16/20	1310	10	X	X	X	X	X	X						
MW-104	Grab	GW		6/16/20	1415	10	X	X	X	X	X	X						
MW-64	Grab	GW		6/16/20	1530	10	X	X	X	X	X	X						
MW-65	Grab	GW				10	X	X	X	X	X	X						
RW-5R	Grab	GW				8	X	X		X	X	X						
MW-102	Grab	GW		6/16/20	1650	10	X	X	X	X	X	X						
RW-4	Grab	GW				8	X	X		X	X	X						
RW-6	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	0800	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:

Date: Time:

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 429 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

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21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Chain of Custody Page 7 of 13

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L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-99	Grab	GW				10	X	X	X	X	X	X						
MW-66	Grab	GW				11	X	X	X		X	X	X	X				
MW-28	Grab	GW				11	X	X	X		X	X	X	X				
MW-59	Grab	GW				10	X	X	X	X	X	X						
MW-60	Grab	GW				11	X	X	X		X	X	X	X				
MW-107	Grab	GW				10	X	X	X	X	X	X						
MW-128	Grab	GW				10	X	X	X	X	X	X						
MW-125	Grab	GW		6/16/20	1055	10	X	X	X	X	X	X						
MW-116	Grab	GW		~~6/16/20~~	~~1115~~ SG	10	X	X	X	X	X	X						
UG-3R	Grab	GW		6/15/20	1630	11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: MW-116 replacement sample (6/19/20 ; 9:30) SG
Dissolved metals field-filtered.
pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

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City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Pres Chk

Chain of Custody Page 8 of 13

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National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
UG-4	Grab	GW		6/15/20	1720	11	X	X	X		X	X	X	X				
UG-1	Grab	GW		6/15/20	1810	11	X	X	X		X	X	X	X				
UG-2	Grab	GW		6/15/20	1910	11	X	X	X		X	X	X	X				
MW-101	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						
MW-105	Grab	GW				10	X	X	X	X	X	X						
RW-2	Grab	GW				12	X	X	X	X	X	X			X			
MW-61	Grab	GW				10	X	X	X	X	X	X						
MW-62	Grab	GW				10	X	X	X	X	X	X						
MW-93	Grab	GW				12	X	X	X	X	X	X			X			
MW-43	Grab	GW				11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: ___°C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-137	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-138	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-23	Grab	GW				10	X	X	X	X	X	X						
MW-39	Grab	GW		6/16/20	1135	10	X	X	X	X	X	X						
MW-98	Grab	GW		6/16/20	1355	10	X	X	X	X	X	X						
RW-10	Grab	GW		6/16/20	925	10	X	X	X	X	X	X						
MW-40	Grab	GW		6/16/20	925	10	X	X	X	X	X	X						
MW-41	Grab	GW		6/16/20	1040	10	X	X	X	X	X	X						
RW-9	Grab	GW		6/16/20	1235	10	X	X	X	X	X	X						
MW-42	Grab	GW				10	X	X	X	X	X	X						

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ✓ FedEx ___ Courier ___
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: ___°C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF: / OK

Chain of Custody Page 9 of 13

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Phone: 800-767-5859
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L#
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 10 of 13

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-29	Grab	GW		6/16/20	1020	10	X	X	X	X	X	X						
RW-#16B	Grab	GW		6/16/20	940	8	X	X		X	X	X						
MW-106	Grab	GW		6/16/20	1625	10	X	X	X	X	X	X						
MW-139	Grab	GW		6/16/20	1145	10	X	X	X	X	X	X						
MW-50	Grab	GW		6/16/20	1235	8	X	X		X	X	X						
MW-97	Grab	GW				12	X	X	X	X	X	X			X			
MW-92	Grab	GW				10	X	X	X	X	X	X						
RW-1	Grab	GW				10	X	X	X	X	X	X						
MW-91	Grab	GW		6/16/20	1400	10	X	X	X	X	X	X						
MW-90	Grab	GW		6/16/20	1445	10	X	X	X	X	X	X						

Matrix:
S - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing information:
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 11 of 13

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L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-96	Grab	GW		6/16/20	1530	10	X	X	X	X	X	X						
MW-94	Grab	GW				10	X	X	X	X	X	X						
RW-8	Grab	GW				8	X	X		X	X	X						
MW-67	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-95	Grab	GW		6/16/20	1645	10	X	X	X	X	X	X						
RW-7	Grab	GW				10	X	X	X	X	X	X						
RW-#17A	Grab	GW				10	X	X	X	X	X	X						
DUP-REST-01	Grab	GW				10	X	X	X	X	X	X						
DUP-REST-02	Grab	GW		6/16/20	1425	10	X	X	X	X	X	X						
DUP-REST-03	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ____

Remarks:
Dissolved metals field-filtered.

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS ✓ FedEx __ Courier ____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	0800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
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21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 12 of 13

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Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
DUP-REST-04	Grab	GW				11	X	X	X		X	X	X	X				
DUP-REST-05	Grab	GW		6/16/20	1200	11	X	X	X		X	X	X	X				
EB-REST-01	Grab	GW				10	X	X	X	X	X	X						
EB-REST-02	Grab	GW		6/16/20	1435	10	X	X	X	X	X	X						
EB-REST-03	Grab	GW				10	X	X	X	X	X	X						
EB-REST-04	Grab	GW				11	X	X	X		X	X	X	X				
EB-REST-05	Grab	GW		6/16/20	1415	11	X	X	X		X	X	X	X				
TRIP BLANK-REST-01	Grab	GW				1	X											
TRIP BLANK-REST-02	Grab	GW		6/16/20	—	1	X											
TRIP BLANK-REST-03	Grab	GW		~~6/16/20~~	— SU	1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Trip Blank-REST-03 replacement sample (6/19/20) SU
Dissolved metals field-filtered.
pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 3

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
Trip Blank-REST-04	Grab	GW		6/16/20	—	1	X											
Trip Blank-REST-05	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 436 of 2498

DAY 1

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TEL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TEL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TEL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
TEL-4	Grab	GW		6/16/20	1255	10	X	X	X	X	X	X						
TEL-3	Grab	GW				10	X	X	X	X	X	X						
TEL-2	Grab	GW		6/16/20	1125 SM	10	X	X	X	X	X	X						
TEL-1	Grab	GW	SM	6/16/20	1025 SM	10	X	X	X	X	X	X						
MW-49	Grab	GW		6/16/20	1340	11	X	X	X		X	X	X	X				
DUP-TEL-01	Grab	GW		6/16/20	1200	10	X	X	X	X	X	X						
EB-TEL-01	Grab	GW		6/16/20	1140	10	X	X	X	X	X	X						
Trip Blank-TEL-01	Grab	GW		6/16/20	—	1	X											

Chain of Custody Page 1 of 1

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#

Table #

Acctnum: **TRCATX**
Template: **T118731**
Prelogin: **P763442**
TSR: **526**
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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DAY 1

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Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TMD (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: **TRCATX**
Template: **T133687**
Prelogin: **P763444**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-25	Grab	GW				8	X	X		X	X	X						
MW-20	Grab	GW				8	X	X		X	X	X						
NP-1	Grab	GW				5	X				X	X						
MW-8	Grab	GW				10	X	X	X	X	X	X						
MW-21	Grab	GW				10	X	X	X	X	X	X						
MW-71	Grab	GW				9	X	X			X	X	X	X				
MW-68	Grab	GW				8	X	X		X	X	X						
MW-27	Grab	GW				8	X	X		X	X	X						
MW-89	Grab	GW				8	X	X		X	X	X						
MW-16	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 438 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **TMD (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-26	Grab	GW				8	X	X		X	X	X						
MW-46R	Grab	GW				8	X	X		X	X	X						
TRIP BLANK-TMD-01	Grab	GW				1	X											

Chain of Custody Page 2 of 2

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Mount Juliet, TN 37122
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Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133687**
Prelogin: **P763444**
TSR: **526**
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 439 of 2498

DAY 1

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **NCL (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓
Rush? (Lab MUST Be Notified) ___ Same Day ___ Next Day ___ Two Day ___ Three Day ___ Five Day ___ 5 Day (Rad Only) ___ 10 Day (Rad Only)
Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical® National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-56	Grab	GW		6/16/20	1125	8	X	X		X	X	X						
MW-45	Grab	GW				9	X	X			X	X	X	X				
NCL-34A	Grab	GW				8	X	X		X	X	X						
NCL-33	Grab	GW				8	X	X		X	X	X						
NCL-44	Grab	GW				8	X	X		X	X	X						
NCL-32	Grab	GW				8	X	X		X	X	X						
MW-108	Grab	GW				8	X	X		X	X	X						
NCL-31	Grab	GW				8	X	X		X	X	X						
MW-55	Grab	GW		6/16/20	1040	11	X	X	X		X	X	X	X				
MW-18	Grab	GW				9	X	X			X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: UPS ✓FedEx Courier
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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National Center for Testing & Innovation
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: **TRCATX**
Template: **T133457**
Prelogin: **P763441**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (Lab only)
MW-54A	Grab	GW		6/16/20	955	8	X	X		X	X	X						
NCL-49	Grab	GW		6/16/20	1045	8	X	X		X	X	X						
~~MW-53~~	~~Grab~~	~~GW~~				~~8~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~		Missing due to construction				
DUP-NCL-01	Grab	GW		6/16/20	1000	8	X	X		X	X	X						
EB-NCL-01	Grab	GW				8	X	X		X	X	X						
TRIP BLANK-NCL-01	Grab	GW		6/16/20	—	1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	0800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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DAY 2

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-6A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-85~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-86	Grab	GW		6/17/20	1415	11	X	X	X		X	X	X	X				
~~MW-120~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-121~~	Grab	GW				10	X	X	X	X	X	X						
MW-84	Grab	GW		6/17/20	1330	10	X	X	X	X	X	X						
MW-122	Grab	GW		6/17/20	940	10	X	X	X	X	X	X						
MW-81	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						
MW-80	Grab	GW		6/17/20	1110	10	X	X	X	X	X	X						
MW-79	Grab	GW		6/17/20	1155	10	X	X	X	X	X	X						

Chain of Custody Page 1 of 6

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Mount Juliet, TN 37122
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Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:
Dissolved metals field-filtered.

pH: ____ Temp ____
Flow ____ Other ____

Samples returned via:
___ UPS ✓ FedEx ___ Courier
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: ____°C Bottles Received:
Date: Time:

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 6

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-82	Grab	GW		6/17/20	1245	10	X	X	X	X	X	X						
~~MW-74~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-73~~	Grab	GW				10	X	X	X	X	X	X						
MW-2A	Grab	GW		6/17/20	855	10	X	X	X	X	X	X						
~~MW-72~~	Grab	GW				10	X	X	X	X	X	X						
~~OCD-6~~	Grab	GW				10	X	X	X	X	X	X						
~~OCD-7AR~~	Grab	GW				10	X	X	X	X	X	X						
MW-76	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X						
MW-77	Grab	GW		6/17/20	1410	10	X	X	X	X	X	X						
MW-78	Grab	GW		6/17/20	1455	10	X	X	X	X	X	X						

L#
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
UPS ✓ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	Sample Receipt Checklist
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 3 of 6

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-75	Grab	GW		6/17/20	1540	10	X	X	X	X	X	X						
MW-83	Grab	GW		6/17/20	1240	10	X	X	X	X	X	X						
MW-3	Grab	GW		6/17/20	1140	10	X	X	X	X	X	X						
~~MW-88~~	Grab	GW				10	X	X	X	X	X	X						
MW-22A	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						
MW-10	Grab	GW		6/17/20	940	10	X	X	X	X	X	X						
MW-123	Grab	GW		6/17/20	855	10	X	X	X	X	X	X						
~~MW-4A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-5A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-7A~~	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Biogassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier
Tracking # _____

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR	
Scott Ude	6/17/20	1700			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 4 of 6

Pace Analytical* National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Lab #

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~OCD-8A~~	Grab	GW				11	X	X	X		X	X	X	X				
MW-1R	Grab	GW		6/17/20	1000	8	X	X		X	X	X						
MW-15	Grab	GW		6/17/20	1045	10	X	X	X	X	X	X						
OCD-1R	Grab	GW		6/17/20	1415	10	X	X	X	X	X	X						
OCD-2A	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X						
OCD-3	Grab	GW		6/17/20	1145	10	X	X	X	X	X	X						
OCD-4	Grab	GW		6/17/20	1055	10	X	X	X	X	X	X						
MW-11A	Grab	GW		6/17/20	1235	10	X	X	X	X	X	X						
OCD-5	Grab	GW		6/17/20	1010	10	X	X	X	X	X	X						
~~MW-87~~	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 445 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Red Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 5 of 6

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

E.#

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-18A~~	Grab	GW				9	X	X			X	X	X	X				
~~MW-70~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-124~~	Grab	GW				10	X	X	X	X	X	X						
~~DUP-EP-01~~	Grab	GW				10	X	X	X	X	X	X						
DUP-EP-02	Grab	GW		6/17/20	1000	10	X	X	X	X	X	X						
DUP-EP-03	Grab	GW		6/17/20	1100	10	X	X	X	X	X	X						
~~EB-EP-01~~	Grab	GW				10	X	X	X	X	X	X						
~~EB-EP-02~~	Grab	GW				10	X	X	X	X	X	X						
~~EB-EP-03~~	Grab	GW				10	X	X	X	X	X	X						
EB-EP-04	Grab	GW		6/17/20	1210	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking # _____

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 446 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
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21 Griffin Road North
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **EP (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓
Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Quote #
Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 6 of 6

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~Trip Blank-EP-01~~ Su	Grab	GW				1	X											
~~Trip Blank-EP-02~~	Grab	GW				1	X											
Trip Blank-EP-03	Grab	GW		6/17/20	—	1	X											
~~Trip Blank-EP-04~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	Hold:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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DAY 2

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~RW-#15C~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-48~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-130	Grab	GW		6/17/20	1410	10	X	X	X	X	X	X						
~~KWB-4~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-19~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-52	Grab	GW		6/17/20	1320	11	X	X	X		X	X	X	X				
MW-109	Grab	GW		6/17/20	1235	10	X	X	X	X	X	X						
MW-110	Grab	GW		6/17/20	1150	10	X	X	X	X	X	X						
RW-12R	Grab	GW		6/17/20	1535	8	X	X		X	X	X						
~~RW-113~~ MW-113	Grab	GW		6/17/20	1510	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Lab - print RW-113 should have been "MW-113"
Dissolved metals field-filtered.
pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ✓ FedEx ___ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Chain of Custody Page 1 of 3

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 448 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

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21 Griffin Road North
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 2 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Lab #

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~KWB-8~~ (LNAPL)	Grab	GW				9	X	X			X	X	X	X				
~~RW-22~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-20A~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-20B~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-13R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-14R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-133 (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-134	Grab	GW		6/17/20	1340	10	X	X	X	X	X	X						
RA-4798	Grab	GW		6/17/20	1605	5	X				X	X						
RA-4196	Grab	GW		6/17/20	1550	5	X				X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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Page 449 of 2498

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Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
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___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RA-3156	Grab	GW		6/17/20	1520	5	X				X	X						
RA-313	Grab	GW		6/17/20	855	5	X				X	X						
KWB-7	Grab	GW		6/16/20	1330	9	X	X			X	X	X	X				
MW-135	Grab	GW		6/17/20	1420	10	X	X	X	X	X	X						
KWB-11A	Grab	GW		6/16/20	1425	11	X	X	X		X	X	X	X				
KWB-11B	Grab	GW		6/16/20	1515	11	X	X	X		X	X	X	X				
~~MW-115~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-114~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-117~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-118~~	Grab	SS				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier

Tracking #

Relinquished by : (Signature) Scott Ude | Date: 6/17/20 | Time: 1720 | Received by: (Signature) | Trip Blank Received: Yes / No, HCL / MeoH, TBR

Relinquished by : (Signature) | Date: | Time: | Received by: (Signature) | Temp ____ °C Bottles Received: | If preservation required by Login: Date/Time

Relinquished by : (Signature) | Date: | Time: | Received for lab by: (Signature) | Date: Time: | Hold: | Condition: NCF / OK

Chain of Custody Page 3 of 13

Pace Analytical®
National Center for Testing & Innovation
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L#

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

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Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓
Rush? (Lab MUST Be Notified) ____ Same Day ____ Five Day ____ Next Day ____ 5 Day (Rad Only) ____ Two Day ____ 10 Day (Rad Only) ____ Three Day
Quote #
Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 4 of 13

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L#
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-119~~	Grab	GW				10	X	X	X	X	X	X						
MW-136	Grab	GW		6/17/20	915	11	X	X	X		X	X	X	X				
~~MW-126A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-126B~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-127~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-129~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-#18A~~	Grab	GW				6	X			X	X	X						
KWB-1A	Grab	GW		6/17/20	1000	9	X	X			X	X	X	X				
~~KWB-10R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-131~~	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: UPS ✓FedEx Courier
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: °C Bottles Received:
Date: Time:

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 451 of 2498

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (Signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 5 of 13

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Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~KWB-5~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-111	Grab	GW		6/17/20	1045	10	X	X	X	X	X	X						
~~KWB-6~~ (LNAPL)	Grab	GW				11	X	X		X	X	X				X		
~~MW-112~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-132~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-57~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-11-0~~ (DRY)	Grab	GW				8	X	X		X	X	X						
~~KWB-12A~~	Grab	GW				11	X	X	X		X	X	X	X				
~~KWB-12B~~	Grab	GW				11	X	X	X		X	X	X	X				
~~KWB-2R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___ Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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Site/Facility ID # **REST (Navajo - Artesia)**

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Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
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___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-58~~ (LNAPL)	Grab	GW				9	X	X			X	X	X	X				
~~KWB-13~~	Grab	GW				9	X	X			X	X	X	X				
~~MW-103~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-104~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-64~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-65~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-5R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-102~~	Grab	GW				10	X	X	X	X	X	X						
RW-4	Grab	GW		6/17/20	915	8	X	X		X	X	X						
~~RW-6~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: °C Bottles Received:

Date: Time:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 6 of 13

Pace Analytical
National Center for Testing & Innovation

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Fax: 615-758-5859

L#

Table #

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Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

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City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

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Immediately Packed on Ice N ____ Y ✓

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___ Three Day

Quote #

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Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-99	Grab	GW		6/17/20	1250	10	X	X	X	X	X	X						
MW-66	Grab	GW		6/17/20	1245	11	X	X	X		X	X	X	X				
MW-28	Grab	GW		6/17/20	1340	11	X	X	X		X	X	X	X				
MW-59	Grab	GW		6/17/20	1015	10	X	X	X	X	X	X						
MW-60	Grab	GW		6/17/20	1145	11	X	X	X		X	X	X	X				
~~MW-107~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-128~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-125~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-116~~	Grab	GW				10	X	X	X	X	X	X						
~~UG-3R~~	Grab	GW				11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS ✓FedEx __Courier _____

Tracking #

Chain of Custody Page 7 of 13

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Lab #

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
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Date Results Needed
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Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~UG-4~~	Grab	GW				11	X	X	X		X	X	X	X				
~~UG-1~~	Grab	GW				11	X	X	X		X	X	X	X				
~~UG-2~~	Grab	GW				11	X	X	X		X	X	X	X				
~~MW-101~~	Grab	GW				10	X	X	X	X	X	X						
MW-105	Grab	GW		6/17/20	925	10	X	X	X	X	X	X						
~~RW-2~~ (LNAPL)	Grab	GW				12	X	X	X	X	X	X			X			
MW-61	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						
MW-62	Grab	GW		6/17/20	1220	10	X	X	X	X	X	X						
MW-93	Grab	GW		6/17/20	1125	12	X	X	X	X	X	X			X			
MW-43	Grab	GW		6/17/20	1425	11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier _____
Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: °C Bottles Received:
Date: Time:

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Chain of Custody Page 8 of 13

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:
Shipped Via:

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Page 455 of 2498

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Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
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Analysis / Container / Preservative

Pres Chk

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)
~~MW-137~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X	
~~MW-138~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X	
MW-23	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X				
~~MW-39~~	Grab	GW				10	X	X	X	X	X	X				
~~MW-98~~	Grab	GW				10	X	X	X	X	X	X				
~~RW-10~~	Grab	GW				10	X	X	X	X	X	X				
~~MW-40~~	Grab	GW				10	X	X	X	X	X	X				
~~MW-41~~	Grab	GW				10	X	X	X	X	X	X				
~~RW-9~~	Grab	GW				10	X	X	X	X	X	X				
MW-42	Grab	GW		6/17/20	1420	10	X	X	X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

ph _____ Temp _____
Flow _____ Other _____

Samples returned via:
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Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR
Temp: °C Bottles Received:
Date: Time:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time
Hold:
Condition: NCF / OK

Chain of Custody Page 9 of 13

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L#
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Remarks | Sample # (lab only)

Received by OCD: 6/23/2021 4:05:29 PM
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Analysis / Container / Preservative

Chain of Custody Page 10 of 13

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Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-29~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-#16B~~	Grab	GW				8	X	X		X	X	X						
~~MW-106~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-139~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-50~~	Grab	GW				8	X	X		X	X	X						
~~MW-97~~ (LNAPL)	Grab	GW				12	X	X	X	X	X	X			X			
~~MW-92~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-1~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-91~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-90~~	Grab	GW				10	X	X	X	X	X	X						

L #

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
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OT - Other_____

Remarks:
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pH _____ Temp _____
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Samples returned via:
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Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
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If Applicable
VOA Zero Headspace: __Y __N
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Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

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P.O. # **150726**

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Analysis / Container / Preservative

Chain of Custody Page 11 of 13

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TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-96~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-94~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-8~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-67~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X			
~~MW-95~~	Grab	GW				10	X	X	X	X	X	X						
RW-7	Grab	GW		6/17/20	1220	10	X	X	X	X	X	X						
RW-#17A	Grab	GW		6/17/20	1510	10	X	X	X	X	X	X						
DUP-REST-01	Grab	GW		6/17/20	1200	10	X	X	X	X	X	X						
~~DUP-REST-02~~	Grab	GW		~~6/17/20~~	~~1100~~ SM	10	X	X	X	X	X	X						
DUP-REST-03	Grab	GW		6/17/20	1100	10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ✓ FedEx ___ Courier ___ Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 12 of 13

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Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
DUP-REST-04	Grab	GW		6/17/20	1000	11	X	X	X		X	X	X	X				
~~DUP-REST-05~~	Grab	GW				11	X	X	X		X	X	X	X				
EB-REST-01	Grab	GW		6/17/20	1530	10	X	X	X	X	X	X						
~~EB-REST-02~~	Grab	GW				10	X	X	X	X	X	X						
EB-REST-03	Grab	GW		6/17/20	1400	10	X	X	X	X	X	X						
EB-REST-04	Grab	GW		6/17/20	1205	11	X	X	X		X	X	X	X				
~~EB-REST-05~~	Grab	GW				11	X	X	X		X	X	X	X				
TRIP BLANK-REST-01	Grab	GW				1	X											
~~TRIP BLANK-REST-02~~	Grab	GW				1	X											
~~TRIP BLANK-REST-03~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier: __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 13 of 13

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Lab #

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~Trip Blank-REST-04~~	Grab	GW				1	X											
~~Trip Blank-REST-05~~	Grab	GW				1	X											

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Samples returned via:
___ UPS ✓ FedEx ___ Courier

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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DAY 2

TRC Solutions - Austin, TX
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Billing Information:
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21 Griffin Road North
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apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **TEL Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-TEL**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **TEL (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Chain of Custody Page 1 of 1

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L#
Table #
Acctnum: TRCATX
Template: T118731
Prelogin: P763442
TSR: 526
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions, NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~TEL-4~~	Grab	GW				10	X	X	X	X	X	X						
~~TEL-3~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~TEL-2~~	Grab	GW				10	X	X	X	X	X	X						
~~TEL-1~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-49~~	Grab	GW				11	X	X	X		X	X	X	X				
~~DUP-TEL-01~~	Grab	GW				10	X	X	X	X	X	X						
~~EB-TEL-01~~	Grab	GW				10	X	X	X	X	X	X						
~~Trip Blank-TEL-01~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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DAY 2

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Billing Information:
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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TMD (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-25	Grab	GW		6/17/20	910	8	X	X		X	X	X						
MW-20	Grab	GW		6/17/20	1235	8	X	X		X	X	X						
NP-1	Grab	GW		6/17/20	940	5	X				X	X						
MW-8	Grab	GW		6/17/20	1130	10	X	X	X	X	X	X						
MW-21	Grab	GW		6/17/20	1035	10	X	X	X	X	X	X						
MW-71	Grab	GW		6/17/20	1415	9	X	X			X	X	X	X				
MW-68	Grab	GW		6/17/20	940	8	X	X		X	X	X						
MW-27	Grab	GW		6/17/20	1325	8	X	X		X	X	X						
MW-89	Grab	GW		6/17/20	1040	8	X	X		X	X	X						
MW-16	Grab	GW		6/17/20	1135	8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Chain of Custody Page 1 of 2

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L#
Table #
Acctnum: **TRCATX**
Template: **T133687**
Prelogin: **P763444**
TSR: **526**
PB:
Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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Austin, TX 78752

Billing Information:
Accounts Payable
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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TMD (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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Phone: 800-767-5859
Fax: 615-758-5859

L #
Table #
Acctnum: **TRCATX**
Template: **T133687**
Prelogin: **P763444**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-26	Grab	GW		6/17/20	1230	8	X	X		X	X	X						
MW-46R	Grab	GW		6/17/20	1345	8	X	X		X	X	X						
TRIP BLANK-TMD-01	Grab	GW		6/17/20	—	1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier: _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

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DAY 2

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Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **NCL (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

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L#
Table #
Acctnum: **TRCATX**
Template: **T133457**
Prelogin: **P763441**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-56~~	Grab	GW				8	X	X		X	X	X						
MW-45	Grab	GW		6/17/20	1520	9	X	X			X	X	X	X				
NCL-34A	Grab	GW		6/17/20	1310	8	X	X		X	X	X						
NCL-33	Grab	GW		6/17/20	1355	8	X	X		X	X	X						
NCL-44	Grab	GW		6/17/20	1135	8	X	X		X	X	X						
NCL-32	Grab	GW		6/17/20	1050	8	X	X		X	X	X						
MW-108	Grab	GW		6/17/20	925	8	X	X		X	X	X						
NCL-31	Grab	GW		6/17/20	1005	8	X	X		X	X	X						
~~MW-55~~	Grab	GW				11	X	X	X		X	X	X	X				
MW-18	Grab	GW		6/17/20	1440	9	X	X			X	X	X	X				

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS ✓FedEx __Courier __ _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM
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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ____ Y ✓

Rush? (Lab MUST Be Notified)
____ Same Day ____ Five Day
____ Next Day ____ 5 Day (Rad Only)
____ Two Day ____ 10 Day (Rad Only)
____ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (Lab only)
~~MW-54A~~	Grab	GW				8	X	X		X	X	X						
~~NCL-49~~	Grab	GW				8	X	X		X	X	X						
~~MW-53~~	Grab	GW				8	X	X		X	X	X					Missing due to construction	
~~DUP-NCL-01~~	Grab	GW				8	X	X		X	X	X						
EB-NCL-01	Grab	GW		6/17/20	1100	8	X	X		X	X	X						
~~TRIP BLANK-NCL-01~~	Grab	GW				1	X											

Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: °C Bottles Received:

Date: Time:

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table #

Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:

Shipped Via:

Received by OCD: 6/23/2021 4:05:29 PM
Released to Imaging: 11/21/2023 10:16:55 AM

Released to Imaging: 11/21/2023 8:57:05 AM
Received by OCD: 6/23/2021 4:05:29 PM

S. Department of Commerce
ational Oceanic & Atmospheric Administration
ational Environmental Satellite, Data, and Information Service
rrent Location: Elev: 3366 ft. Lat: 32.7547° N Lon: -104.3835° W
ation: **ARTESIA 6 S, NM US USC00290600**

Record of Climatological Observations

These data are quality controlled and may not be identical to the original observations.

Generated on 01/28/2021

National Centers for Environmental Informati
151 Patton Aven
Asheville, North Carolina 288

Observation Time Temperature: 0730 Observation Time Precipitation: 07

Year	Month	Day	Temperature (F)			Precipitation					Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		At Obs.	24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth		
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2020	10	01	91	46	49	0.00		0.0		0.0	72.7	0.20	5	67	67			
2020	10	02	86	42	43	0.00		0.0		0.0	128.0	0.19	5	66	66			
2020	10	03	86	43	47	0.00		0.0		0.0	170.9	0.23	5	66	65			
2020	10	04	84	43	46	0.00		0.0		0.0	126.1	0.24	5	66	66			
2020	10	05	81	44	44	0.00		0.0		0.0	96.9	0.16	5	66	65			
2020	10	06	95	44	49	0.00		0.0		0.0	95.7	0.20	5	66	65			
2020	10	07	92	47	48	0.00		0.0		0.0		0.16	5	66	65			
2020	10	08	92	45	45	0.00		0.0		0.0	100.0	0.21	5	69	65			
2020	10	09	92	43	46	0.00		0.0		0.0	119.3	0.20	5	66	66			
2020	10	10	95	46	50	0.00		0.0		0.0	70.2	0.13	5	66	66			
2020	10	11	96	49	49	0.00		0.0		0.0	103.8	0.23	5	66	66			
2020	10	12	89	48	52	0.00		0.0		0.0	172.7	0.32	5	68	65			
2020	10	13	78	41	42	0.00		0.0		0.0	85.1	0.17	5	68	65			
2020	10	14	91	42	45	0.00		0.0		0.0	59.0	0.14	5	66	65			
2020	10	15	96	44	53	0.00		0.0		0.0	124.9	0.22	5	66	64			
2020	10	16	72	46	46	0.00		0.0		0.0	128.0	0.20	5	66	64			
2020	10	17	68	42	43	0.00		0.0		0.0	200.7	0.40	5	65	63			
2020	10	18	93	41	59	0.00		0.0		0.0	88.9	0.15	5	64	62			
2020	10	19	91	40	40	0.00		0.0		0.0	116.2	0.24	5	65	63			
2020	10	20	80	39	41	0.00		0.0		0.0	137.9	0.19	5	65	63			
2020	10	21	90	41	45	0.00		0.0		0.0	69.0	0.16	5	64	63			
2020	10	22	91	44	48	0.00		0.0		0.0	116.2	0.22	5	64	62			
2020	10	23	91	44	45	0.00		0.0		0.0	180.2	0.29	5	64	62			
2020	10	24	60	37	38	0.00		0.0		0.0	121.2	0.25	5	64	61			
2020	10	25	78	38	63	0.00		0.0		0.0	218.7	0.18	5	60	60			
2020	10	26	83	33	33	0.00		0.0		0.0	261.0	0.28	5	61	60			
2020	10	27	34	23	23	0.02		T		0.0	139.2	0.00	5	60	55			
2020	10	28	29	23	29	0.03		0.0		0.0	167.8	0.00	5	53	37			
2020	10	29	47	23	34	0.00		0.0		0.0	110.0	0.02	5	52	51			
2020	10	30	64	23	29	0.00		0.0		0.0	49.1	0.08	5	52	51			
2020	10	31	71	28	37	0.00		0.0		0.0	134.2	0.20	5	53	52			
		Summary	80	40		0.05		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests. "At Obs." = Temperature at time of observation

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

HMI Groundwater

Hydrologic Monitoring
1654 W. Sam Houston Pkwy. N.
Houston, Texas 77043

Phone 713.464.5206
Fax 713.464.5207

October 17, 2020

Ms. Julie Speer, P.G.
Sr. Project Manager
TRC
505 East Huntland Drive, Suite 250
Austin, Texas 78752

Subject: October 2020 (Fall) Groundwater Monitoring Event
Sitewide Gauging – October 6, 2020
Groundwater Sampling – October 6-7, 2020
Navajo Refining Company, Artesia, New Mexico

Dear Ms. Speer:

This document summarizes groundwater monitoring field activities conducted by Hydrologic Monitoring, LLC (HMI) on behalf of TRC at the Navajo Refining Company, Artesia Refinery, Artesia, New Mexico.

Contents

Field Activities Narrative
Table 1: (Gauging Data, GW Field Parameters, Well Inspections, & Analytical Program)
Groundwater Sampling SOP Memo
Job Hazard Analysis (JHA) forms
Groundwater Sampling Forms, followed by Field Instrument Calibration Log
(three (3) emails - forms in order of field-strategy, Table 1)
Chain-of-Custody Forms (one email)

Field Activities Narrative

1. Historically-conducted in April, the 1H20 event was delayed until June 2020, due to COVID 19 concerns. HMI conducted the *Fall 2020* groundwater monitoring event in October 2020 (i.e., "SA" designations only, in Table 1). Sitewide gauging was conducted October 6, 2020. Groundwater sampling was conducted October 6-7 with HMI team; 20 cooler-entire project shipped from Roswell, New Mexico FedEx location, October 7, 2020.

2. Groundwater sampling was conducted in accordance with the Site Sampling and Analysis Plan, EPA guidance, and the attached Memorandum - Low-Flow Groundwater Monitoring Standard Operating Procedures, Navajo Refining Co. - Artesia, New Mexico. Per regulatory request, if measured LNAPL thickness was *less than* 0.03 feet, in any well scheduled for groundwater sampling, LNAPL was removed, and the well was sampled. If LNAPL thickness was equal to, or greater than 0.03 feet, in any well scheduled for sampling, the well was not sampled. Gauging data, groundwater field parameters, and well inspection information is summarized in Table 1. Samples were shipped overnight FedEx, to Pace National, Mt. Juliet, TN. The groundwater sampling process is documented on the attached groundwater sampling forms.

3. Field QA/QC Sampling (per Refinery Area):

   Evaporation Ponds
   Duplicates:
   Dup-EP-01 at MW-7A
   Dup-EP-02 at MW-22A
   Dup-EP-03 at MW-3
   Equipment Blanks:
   EB-EP-01 collected over decontaminated gauging probe after sampling at MW-74
   EB-EP-02 collected over decontaminated gauging probe after sampling at MW-124
   EB-EP-03 collected over decontaminated gauging probe after sampling at MW-5A
   EB-EP-04 collected over decontaminated gauging probe after sampling at MW-79
   Trip Blank-EP-01
   Trip Blank-EP-02
   Trip Blank-EP-03
   Trip Blank-EP-04

   NCL
   Duplicate:
   Dup-NCL-01 at NCL-49
   Equipment Blank:
   EB-NCL-01 collected over decontaminated gauging probe after sampling at NCL-32
   Trip Blank-NCL-01

   TMD
   Trip Blank-TMD-01

TEL
Duplicate:
Dup-TEL-01 at TEL-4
Equipment Blank:
EB-TEL-01 collected over decontaminated gauging probe after sampling at TEL-2
Trip Blank-TEL-01

REST ("rest" of the site)
Duplicates:
Dup-REST-01 at MW-113
Dup-REST-02 at MW-104
Dup-REST-03 at MW-134
Dup-REST-04 at MW-60
Dup-REST-05 at KWB-12B
Equipment Blanks:
EB-REST-01 collected over decontaminated gauging probe after sampling at MW-113
EB-REST-02 collected over decontaminated gauging probe after sampling at MW-104
EB-REST-03 collected over decontaminated gauging probe after sampling at MW-134
EB-REST-04 collected over decontaminated gauging probe after sampling at MW-60
EB-REST-05 collected over decontaminated gauging probe after sampling at KWB-12B
Trip Blank-REST-01
Trip Blank-REST-02
Trip Blank-REST-03
Trip Blank-REST-04

4. Notes:

1H20 & 2H20: Per TRC, Pace chain-of-custodies, reference PO # 150726

TRC notes from October 2020:
HMI's daily JHA forms to be included in deliverables package.
Email TRC "Estimated Field Hours" table, pre-event, and followup with "Actual Field Hours" table, post-event.
Pre-2H20 - Wood installed wells MW-137A, MW-138A, and MW-62R inside Refinery; TRC installed MW-145 (+Dup-01, +EB-01), MW-146, MW-147, and MW-148 (East Field/Chase Farms), for VOC only, on separate COC and TRC invoice.
TRC also installed replacement well MW-53R.
Pre-1H20, MW-101 recompleted at-grade (due to in-plant construction), then pre-2H20, MW-101 surrounding area was excavated on all four sides, approximately 4-ft deep; and planned to be refilled, not affecting MW-101, per Navajo (photo).



MW-101 area, 10-6-20

Irrigation wells may experience upcoming changes, per TRC (TBD, replacements, etc.), with possible renewed well-access on the Joy farm property upcoming, per TRC.

Training modules: "24HFNAV HOLLYFRONTIER SITE SPECIFIC ORIENTATION ARTESIA-NM", and additional "LPS" module – both @ HASC, annually (HMI's December-cycle). HMI's DISA 2-yr backgound check/drug/alcohol requirements approved by safety-trailer personnel on 10-3-17 (updated 2019), as reported through HASC system; HMI maintains its access qualifications.
Per Navajo, purgewater is disposed in the pad sump (inside, then to the left, after Main Gate-entrance). Alternately, North Bundle Pad sump (fenced area of drums, etc.), notifying FCC control room prior to entrance.
Sitewide well/gate lock combinations: "2-0-1-3" (less often "2-0-0-2").
With suggested telephone notification, FedEx pickup from locked Artesia Refinery shed (35-25-39 lock combination), no earlier than approximately 14:00 daily, located across from Artesia Wool Co (access shed-area from inside the Refinery).
North side of Hwy 82, east of site, gate with cable and combination lock (8810).
POTW bldg, check-in as needed, to borrow a key or get gate unlocked.
HMI borrows Navajo key sets for "Evaporation Ponds" & "TEL" at permitting; returning upon event completion.
Navajo's Mr. Robert Combs, Randy Dade, Richard Orosco, for daily safety review & permit-issue per team member (typically 8-10 HMI team-).
Navajo completed well surface completion upgrades in a phased-approach, beginning 2018. HMI's well inspections are documented on well gauging and sampling forms. Well inspection items of concern (i.e., "Issues") highlighted in yellow (Table 1).

HMI appreciates the opportunity to assist TRC with this project. If you have any questions or would like additional information please feel free to call us at 713.464.5206.

Sincerely,

HYDROLOGIC MONITORING

Scott C. Ude

STATE OF TEXAS
SCOTT C. UDE
GEOLOGY
353
LICENSED
PROFESSIONAL GEOSCIENTIST

Scott C. Ude, P.G.

The seal appearing on this document was authorized by Scott C. Ude, P.G. 353 on October 17, 2020.

Attachments

cc: Dana Helbert, P.G., TRC-Austin

Released to Imaging: 11/21/2023 10:16:55 AM
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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC						
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
MW-6A	Monitoring	MDB		1	EP	6-Oct	1515	NP	14.28	0.00	19.04										Yes	Yes	Yes	Yes		SA	A	A					
MW-6B	Monitoring	MDB		2	EP	6-Oct	1520	NP	14.18	0.00	52.28										Yes	Yes	Yes	Yes		SA	B	B					
MW-85	Monitoring	MDB		3	EP	6-Oct	1650	11.71	12.28	0.57	20.34			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-86	Monitoring	MDB		4	EP	6-Oct	1610	NP	11.45	0.00	19.21	6-Oct	1635	6.91	23.5	7,570	1.0	-355.7	8.8	Yellow tint, black particles	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-120	Monitoring	MDB		5	EP	6-Oct	835	NP	14.02	0.00	28.00	6-Oct	900	7.19	21.1	8,370	1.2	-132.6	5.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-121	Monitoring	MDB		6	EP	6-Oct	915	NP	14.12	0.00	27.31	6-Oct	940	7.23	22.3	5,740	1.4	34.9	9.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-84	Monitoring	MDB		7	EP	6-Oct	1525	NP	10.81	0.00	20.56	6-Oct	1550	7.13	24.4	10,100	1.0	-134.0	7.6	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-122	Monitoring	MDB		8	EP	6-Oct	1050	NP	12.02	0.00	23.32	6-Oct	1115	7.32	21.5	5,500	1.1	-123.1	28.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-81	Monitoring	MDB		9	EP	6-Oct	955	NP	12.42	0.00	18.62										Yes	Yes	Yes	Yes		SA	A	A					
MW-80	Monitoring	MDB		10	EP	6-Oct	1000	NP	10.44	0.00	19.69										Yes	Yes	Yes	Yes		SA	A	A					
MW-79	Monitoring	MDB		11	EP	6-Oct	1005	NP	11.71	0.00	19.24	6-Oct	1030	7.19	20.8	8,650	1.2	-54.4	4.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-82	Monitoring	MDB		12	EP	6-Oct	1605	NP	11.29	0.00	20.02										Yes	Yes	Yes	Yes		SA	A	A					
MW-74	Monitoring	MDB		13	EP	6-Oct	1410	NP	11.01	0.00	20.19	6-Oct	1435	7.10	22.6	10,530	1.0	58.0	3.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-73	Monitoring	MDB		14	EP	6-Oct	1500	NP	11.92	0.00	19.60										Yes	Yes	Yes	Yes		SA	A	A					
MW-2A	Monitoring	MDB		15	EP	6-Oct	1130	NP	11.65	0.00	17.30	6-Oct	1155	7.23	23.6	6,400	1.4	-20.3	6.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-2B	Monitoring	MDB		16	EP	6-Oct	1210	NP	12.69	0.00	52.00			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
MW-72	Monitoring	MDB		17	EP	6-Oct	1220	NP	9.17	0.00	13.93										Yes	Yes	Yes	Yes		SA	A	A					
OCD-6	Monitoring	MDB		18	EP	6-Oct	1225	NP	11.90	0.00	26.69	6-Oct	1250	7.08	21.8	15,850	1.0	-96.5	5.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
OCD-7AR	Monitoring	MDB		19	EP	6-Oct	1305	NP	11.01	0.00	21.28	6-Oct	1330	7.11	24.3	13,070	1.3	-135.5	7.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
OCD-7B	Monitoring	MDB		20	EP	6-Oct	1345	NP	11.00	0.00	56.85										Yes	Yes	Yes	Yes		SA	B	B	x				
OCD-7C	Monitoring	MDB		21	EP	6-Oct	1350	NP	10.73	0.00	71.95			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
RW-#15C	Recovery	MDB		22	REST	6-Oct	810	19.26	19.30	0.04	22.30										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-48	Monitoring	MDB		23	REST	6-Oct	805	21.41	21.49	0.08	32.00			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Issue	Yes	Y	SA	SA	SA	x				
MW-130	Monitoring	MDB		24	REST	6-Oct	800	NP	23.19	0.00	45.00	7-Oct	855	6.70	21.6	3,010	2.3	51.2	5.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
KWB-4	Monitoring	MDB		25	REST	6-Oct	1730	27.03	28.31	1.28	41.75			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
RW-19	Recovery [d]	MDB		26	REST	6-Oct	815	27.80	27.89	0.09	NM										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-76	Monitoring	SCD		27	EP	6-Oct	1655	NP	12.77	0.00	20.33	6-Oct	1720	6.83	20.2	7,750	1.8	-205.6	7.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-77	Monitoring	SCD		28	EP	6-Oct	1650	NP	11.01	0.00	20.52										Yes	Yes	Yes	Yes		SA	A	A					
MW-78	Monitoring	SCD		29	EP	6-Oct	1645	NP	11.04	0.00	19.57										Yes	Yes	Yes	Yes		SA	A	A					
MW-75	Monitoring	SCD		30	EP	6-Oct	1600	NP	11.07	0.00	23.74	6-Oct	1625	7.18	20.2	7,060	1.3	-153.8	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-83	Monitoring	SCD		31	EP	6-Oct	1745	NP	11.01	0.00	19.91	7-Oct	845	6.96	20.6	6,140	1.7	-145.9	6.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-3	Monitoring	SCD		32	EP	6-Oct	1750	NP	13.08	0.00	22.10	7-Oct	930	7.00	19.5	6,540	2.0	-16.5	6.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				

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								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
MW-88	Monitoring	SCD		33	EP	6-Oct	1230	NP	10.71	0.00	20.31	6-Oct	1255	7.01	20.6	6,860	1.5	-52.3	6.8	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-22A	Monitoring	SCD		34	EP	6-Oct	1315	NP	9.92	0.00	22.65	6-Oct	1340	6.94	21.2	14,440	1.8	-97.9	6.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-22B	Monitoring	SCD		35	EP	6-Oct	1415	NP	9.76	0.00	54.66										Yes	Yes	Yes	Yes		SA	B	B				
MW-10	Monitoring	SCD		36	EP	6-Oct	1420	NP	7.46	0.00	18.45	6-Oct	1445	6.93	21.1	6,750	2.3	-107.5	5.9	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-123	Monitoring	SCD		37	EP	6-Oct	1505	NP	7.94	0.00	25.71	6-Oct	1530	6.91	20.2	6,430	1.8	-145.2	7.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-4A	Monitoring	SCD		38	EP	6-Oct	1135	NP	13.23	0.00	16.55	6-Oct	1200	7.00	22.1	6,730	2.5	-149.6	7.0	Clr, black particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-4B	Monitoring	SCD		39	EP	6-Oct	1220	NP	13.00	0.00	72.37										Yes	Yes	Yes	Yes		SA	B	B				
MW-5A	Monitoring	SCD		40	EP	6-Oct	1025	NP	10.32	0.00	20.15	6-Oct	1050	7.08	20.4	9,570	1.6	-138.1	6.2	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-5B	Monitoring	SCD		41	EP	6-Oct	1125	NP	10.41	0.00	53.54										Yes	Yes	Yes	Yes		SA	B	B				
MW-5C	Monitoring	SCD		42	EP	6-Oct	1120	NP	10.61	0.00	71.64										Yes	Yes	Yes	Yes		SA	B	B				
MW-7A	Monitoring	SCD		43	EP	6-Oct	915	NP	10.99	0.00	18.65	6-Oct	940	7.06	20.2	8,450	1.5	-93.3	5.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-7B	Monitoring	SCD		44	EP	6-Oct	1015	NP	10.81	0.00	52.56										Yes	Yes	Yes	Yes		SA	B	B				
OCD-8A	Monitoring	SCD		45	EP	6-Oct	815	NP	10.70	0.00	20.74	6-Oct	840	6.92	18.8	17,880	1.7	-110.9	7.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
OCD-8B	Monitoring	SCD		46	EP	6-Oct	905	NP	10.67	0.00	56.65										Yes	Yes	Yes	Yes		SA	B	B				
KWB-P4	Monitoring	BRH		47	REST	6-Oct					30.26			DO NOT ADDRESS IN 2H20, per Navajo												B	B	B				
MW-25	Monitoring	BRH		48	TMD	6-Oct	920	NP	15.96	0.00	28.18										Yes	Yes	Yes	Yes		SA	A	A				
NP-8	Monitoring	BRH		49	TMD	6-Oct	925	NP	14.27	0.00	>14.95			Not in sampling program; Navajo added PVC riser in 1H18							Yes	Issue	Yes	Yes		SA	Not in sampling program					
MW-1R	Monitoring	BRH		50	EP	6-Oct	930	NP	12.51	0.00	20.63										Yes	Issue	Yes	Yes		SA	A	A				
MW-15	Monitoring	BRH		51	EP	6-Oct	934	NP	13.42	0.00	21.70										Yes	Yes	Yes	Yes		SA	A	A				
OCD-1R	Monitoring	BRH		52	EP	6-Oct	902	NP	13.03	0.00	23.74	7-Oct	1000	7.22	18.4	6,840	1.5	14.9	5.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
OCD-2A	Monitoring	BRH		53	EP	6-Oct	825	NP	13.26	0.00	27.56	7-Oct	830	7.26	17.5	5,650	2.0	-124.9	5.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
OCD-2B	Monitoring	BRH		54	EP	6-Oct	828	NP	13.18	0.00	50.38			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program					
OCD-3	Monitoring	BRH		55	EP	6-Oct	832	NP	13.68	0.00	25.20	6-Oct	1640	7.52	20.1	4,050	1.4	-12.4	6.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
OCD-4	Monitoring	BRH		56	EP	6-Oct	837	NP	13.22	0.00	25.41	6-Oct	1600	7.26	20.8	14,950	1.3	-85.7	6.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-11A	Monitoring	BRH		57	EP	6-Oct	850	NP	10.93	0.00	22.01	7-Oct	915	6.78	19.3	25,200	1.8	33.0	4.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-11B	Monitoring	BRH		58	EP	6-Oct	853	NP	10.89	0.00	47.30										Yes	Yes	Yes	Yes		SA	B	B				
OCD-5	Monitoring	BRH		59	EP	6-Oct	842	NP	11.44	0.00	25.41	6-Oct	1520	7.25	20.4	15,790	1.3	-72.6	28.9	Clear, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-87	Monitoring	BRH		60	EP	6-Oct	1125	NP	10.26	0.00	20.39	6-Oct	1150	7.13	20.4	14,670	1.6	-73.4	4.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-18A	Monitoring	BRH		61	EP	6-Oct	1205	NP	11.68	0.00	22.58	6-Oct	1230	7.22	20.2	18,870	1.3	-163.4	2.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-18B	Monitoring	BRH		62	EP	6-Oct	1240	NP	11.67	0.00	50.59										Yes	Yes	Yes	Yes		SA	B	B				
MW-18T	Monitoring	BRH		63	EP	6-Oct	1245	NP	11.80	0.00	50.57			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program					
MW-70	Monitoring	BRH		64	EP	6-Oct	1255	NP	10.08	0.00	22.05	6-Oct	1320	7.16	21.2	6,260	1.0	-102.4	7.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC							
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
MW-124	Monitoring	BRH		65	EP	6-Oct	1340	NP	10.78	0.00	22.00	6-Oct	1405	7.19	21.2	11,790	1.4	-94.2	6.7	Clr, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-52	Monitoring	BRH/MDB		66	REST	6-Oct	1720	NP	21.54	0.00	34.67	7-Oct	940	6.84	20.7	3,190	1.7	58.3	4.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-109	Monitoring	BRH/RJM		67	REST	6-Oct	1725	NP	19.52	0.00	29.48	7-Oct	900	7.23	24.0	2,690	1.3	-355.9	5.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-110	Monitoring	BRH/RJM		68	REST	6-Oct	1730	NP	16.12	0.00	29.74	7-Oct	1000	7.23	24.1	1,741	1.2	-271.7	6.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-13	Monitoring	BRH		69	EP	6-Oct	1015	NP	12.89	0.00	21.10			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river					
MW-69	Monitoring	BRH		70	EP	6-Oct	1020	NP	11.61	0.00	22.51			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river					
MW-12	Monitoring	BRH		71	EP	6-Oct	1025	NP	10.03	0.00	17.93			Not in sampling program							Yes	Yes	Yes	Yes		SA	No sampling due to location N. of river					
MW-24	Monitoring	BRH		72	EP	6-Oct	1040	NP	12.04	0.00	23.51			Not in sampling program							Yes	Yes	Issue	Yes		SA	No sampling due to location E. of river					
MW-14	Monitoring	BRH		73	EP	6-Oct	1045	NP	>11.81	0.00	>11.81			Not in sampling program							Yes	Issue	Yes	Yes		SA	No sampling due to location N. of river					
RW-12	Recovery [d]			Field E of Refinery				Not in gauging program						Not in sampling program											-	-	-	-	-	-	-	-
RW-12R	Recovery [d]	BTB		74	REST	6-Oct	1621	NP	21.74	0.00	NM										Yes	Yes	Yes	Yes		SA	A	A				
MW-113	Monitoring	BTB/GDS		75	REST	6-Oct	1702	NP	21.49	0.00	37.80	7-Oct	900	6.64	20.1	3,620	1.6	-150.2	7.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
KWB-8	Monitoring	BTB		76	REST	6-Oct	1225	NP	18.86	0.00	35.80	6-Oct	1250	6.89	21.6	5,198	0.8	-308.5	7.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
RW-22	Recovery [d]	BTB		77	REST	6-Oct	1640	23.46	24.34	0.88	NM										Yes	Yes	Yes	Yes	Y	SA	A	A				
RW-20A	Recovery [d]	BTB		78	REST	6-Oct	1635	>20.65	>20.65	NM	NM			Top of recovery pump @ 20.65 ft-toc							Yes	Yes	Yes	Yes	Y	SA	A	A				
RW-20B	Recovery [d]	BTB		79	REST	6-Oct	1630	20.51	20.70	0.19	NM										Yes	Yes	Yes	Yes	Y	SA	A	A				
RW-13	Recovery [d]			Field E of Refinery				Not in gauging program						Not in sampling program											Y	-	-	-	-	-	-	-
RW-13R	Recovery [d]	BTB		80	REST	6-Oct	1616	20.02	20.13	0.11	NM										Yes	Yes	Yes	Yes	Y	SA	A	A				
RW-14	Recovery [d]			Field E of Refinery				Not in gauging program						Not in sampling program											Y	-	-	-	-	-	-	-
RW-14R	Recovery [d]	BTB		81	REST	6-Oct	1610	21.78	21.97	0.19	NM										Yes	Yes	Yes	Yes	Y	SA	A	A				
MW-133	Monitoring	BTB		82	REST	6-Oct	1604	19.40	19.62	0.22	37.64			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-134	Monitoring	BTB/GDS		83	REST	6-Oct	1605	NP	19.73	0.00	32.95	6-Oct	1630	6.83	22.1	6,250	0.9	123.5	2.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
RA-4798	Irrigation	BTB		84	REST	6-Oct	No gauging @ irrigation well					6-Oct	1315	7.21	21.4	2,396	3.8	-43.9	0.8	Clear	NA	NA	NA	Yes		NA	SA	SA	x			
RA-4196	Irrigation	BTB		85	REST	6-Oct	No gauging @ irrigation well					6-Oct	1330	7.19	23.7	2,186	3.1	-39.8	0.9	Clear	NA	NA	NA	Yes		NA	SA	SA	x			
RA-1227	Irrigation	BTB		86	REST									Removed from program by Navajo, 4-13-15												NA						
RA-3156	Irrigation	BTB		87	REST	6-Oct	Do not address in 2H20														NA	NA	NA	Yes		NA	A	A				
RA-313	Irrigation	BTB		88	REST	6-Oct	Do not address in 2H20														NA	NA	NA	Yes		NA	A	A				
KWB-7	Monitoring	BTB		89	REST	6-Oct	1135	NP	17.75	0.00	34.83	6-Oct	1200	6.89	23.2	2,369	1.9	-194.3	2.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-135	Monitoring	BTB/GDS		90	REST	6-Oct	1715	NP	31.02	0.00	65.55	7-Oct	1030	6.74	19.7	7,400	3.6	46.1	17.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-20	Monitoring	BTB		91	TMD	6-Oct	1542	NP	18.33	0.00	26.66										Yes	Yes	Yes	Yes		SA	A	A				
NP-3	Monitoring	BTB		92	TMD	6-Oct	1549	NP	20.47	0.00	21.59			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program					
NP-4	Monitoring	BTB		93	TMD	6-Oct	1556	NP	33.81	0.00	36.98			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program					

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC						
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
NP-2	Monitoring	BTB		94	TMD	6-Oct	1559	NP	20.56	0.00	21.49			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
NP-1	Monitoring	BTB		95	TMD	6-Oct	1350	NP	18.74	0.00	21.88	6-Oct	1415	6.74	20.6	4,625	1.6	36.3	1.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
NP-6	Monitoring	BTB		96	TMD	6-Oct	1526	NP	15.14	0.00	20.35										Yes	Yes	Yes	Yes		SA	B	B				
MW-8	Monitoring	BTB		97	TMD	6-Oct	1532	NP	16.59	0.00	23.30										Yes	Yes	Yes	Yes		SA	A	A				
MW-21	Monitoring	BTB/GDS		98	TMD	6-Oct	1520	NP	15.76	0.00	25.12	6-Oct	1545	6.91	23.3	7,460	1.0	128.9	3.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-9	Monitoring	BTB		99	TMD	6-Oct	1538	NP	17.12	0.00	22.25			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
MW-71	Monitoring	BTB		100	TMD	6-Oct	1522	NP	17.41	0.00	21.67										Yes	Yes	Yes	Yes		SA	A	A				
MW-68	Monitoring	BTB		101	TMD	6-Oct	1516	NP	21.12	0.00	26.52										Yes	Yes	Yes	Yes		SA	A	A				
MW-27	Monitoring	BTB		102	TMD	6-Oct	1505	NP	20.42	0.00	30.28										Yes	Yes	Yes	Yes		SA	A	A				
MW-89	Monitoring	BTB		103	TMD	6-Oct	1458	NP	13.08	0.00	20.28										Yes	Yes	Yes	Yes		SA	A	A				
MW-16	Monitoring	BTB		104	TMD	6-Oct	1445	NP	10.39	0.00	21.24										Yes	Yes	Yes	Yes		SA	A	A				
MW-26	Monitoring	BTB		105	TMD	6-Oct	1449	NP	14.00	0.00	27.58										Yes	Yes	Yes	Yes		SA	A	A				
KWB-11A	Monitoring	BTB		106	REST	6-Oct	1000	NP	17.56	0.00	42.27	6-Oct	1025	6.77	19.4	3,861	1.0	14.5	17.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
KWB-11B	Monitoring	BTB		107	REST	6-Oct	1045	NP	18.31	0.00	72.45	6-Oct	1110	6.93	20.1	3,143	1.1	120.8	4.7	Clear	Yes	Yes	Cracked pad	Yes		SA	SA	SA	x			
KWB-3AR	Monitoring	BTB		108	REST									Removed from program by Navajo, 4-13-15 (farmer Jack Joy, 575-365-6042)																		
MW-115	Monitoring	BTB		109	REST	6-Oct	1655	NP	17.89	0.00	27.50	7-Oct	915	6.80	19.5	5,048	2.6	67.5	1.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-114	Monitoring	BTB		110	REST	6-Oct	1659	NP	17.38	0.00	38.25	7-Oct	1000	6.67	21.4	3,428	1.9	96.3	1.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-125	Monitoring	BTB		111	REST	6-Oct	1708	NP	20.32	0.00	28.31	7-Oct	1050	6.80	19.7	4,371	2.1	61.2	4.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-117	Monitoring	GDS/OJD		112	REST	6-Oct	1355	NP	16.17	0.00	27.22	6-Oct	1420	6.71	21.2	3,010	2.5	55.7	8.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-118	Monitoring	GDS/OJD		113	REST	6-Oct	1310	NP	19.35	0.00	28.29	6-Oct	1335	6.87	20.4	2,940	3.8	58.3	9.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
NP-9	Monitoring	GDS		114	TMD	6-Oct	842	NP	18.40	0.00	25.65			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
MW-119	Monitoring	GDS		115	REST	6-Oct	855	NP	17.21	0.00	28.11	6-Oct	920	6.81	20.4	5,950	1.8	59.8	14.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
NP-5	Monitoring	GDS		116	REST	6-Oct	1231	NP	16.91	0.00	25.09										Yes	Yes	Yes	Yes		SA	B	B				
MW-136	Monitoring	GDS		117	REST	6-Oct	1155	NP	18.40	0.00	27.90	6-Oct	1220	6.75	22.0	5,380	1.6	110.6	13.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-126A	Monitoring	GDS		118	REST	6-Oct	945	NP	21.41	0.00	37.51	6-Oct	1010	6.63	21.4	4,570	1.3	-77.4	6.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-126B	Monitoring	GDS		119	REST	6-Oct	1025	NP	21.29	0.00	51.43	6-Oct	1050	6.67	21.2	5,360	1.8	82.5	3.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-127	Monitoring	GDS		120	REST	6-Oct	1117	22.96	24.88	1.92	53.21			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-129	Monitoring	GDS		121	REST	6-Oct	1125	23.66	24.75	1.09	50.78										Yes	Yes	Yes	Yes	Y	SA	A	A				
RW-#18A	Recovery	GDS		122	REST	6-Oct	1351	NP	17.60	0.00	17.78										Yes	Yes	Yes	Yes		SA	A	A				
KWB-1A	Monitoring	GDS		123	REST	6-Oct	1300	NP	18.49	0.00	33.50	6-Oct	1325	6.70	22.1	5,770	1.0	128.4	4.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
KWB-1B	Monitoring	GDS		124	REST	6-Oct	1337	NP	20.14	0.00	33.92			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
KWB-1C	Monitoring	GDS		125	REST	6-Oct	1340	NP	20.75	0.00	52.71										Yes	Yes	Yes	Yes		SA	B	B				

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																	PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC							
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)					
KWB-10R	Monitoring	GDS		126	REST	6-Oct	1346	18.80	21.79	2.99	29.46			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-131	Monitoring	GDS		127	REST	6-Oct	1121	25.95	27.58	1.63	53.35			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
KWB-5	Monitoring	GDS/OJD		128	REST	6-Oct	1235	25.97	28.09	2.12	37.68			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-111	Monitoring	GDS/OJD		129	REST	6-Oct	1225	27.39	27.64	0.25	40.83			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
KWB-6	Monitoring	GDS		130	REST	6-Oct	1436	23.98	26.61	2.63	36.44			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-112	Monitoring	GDS		131	REST	6-Oct	1449	23.23	25.29	2.06	37.54			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-132	Monitoring	GDS		132	REST	6-Oct	1430	21.32	23.80	2.48	42.66			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-57	Monitoring	GDS/OJD		133	REST	6-Oct	1105	NP	21.73	0.00	34.32	6-Oct	1130	6.48	20.5	3,220	3.3	107.3	7.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
RW-#11-0[e]	Recovery [d]	GDS		134	REST	6-Oct	1424	Dry	Dry	Dry	22.20										Yes	Yes	Yes	Yes		SA	A	A					
KWB-9	Monitoring	GDS		135	REST			(Historically-obstructed @ 15.11')						Removed from program by Navajo, 4-26-16 (farmer Jack Joy, 575-365-6042)																			
KWB-12A	Monitoring	GDS/OJD		136	REST	6-Oct	905	NP	23.11	0.00	25.03	6-Oct	930	6.34	19.1	2,460	3.4	51.3	8.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
KWB-12B	Monitoring	GDS/OJD		137	REST	6-Oct	950	NP	23.07	0.00	39.39	6-Oct	1015	6.39	19.4	3,020	4.1	112.1	5.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
KWB-2R	Monitoring	GDS/OJD		138	REST	6-Oct	1150	25.10	25.29	0.19	39.39			No sampling (LNAPL 0.03' or greater)							Issue	Issue	Issue	Issue	Y	SA	SA	SA	x				
MW-58	Monitoring	GDS/OJD		139	REST	6-Oct	1210	23.76	24.71	0.95	33.06			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
KWB-13	Monitoring	GDS		140	REST	6-Oct	1412	NP	28.00	0.00	33.10										Yes	Yes	Yes	Yes		SA	A	A					
MW-103	Monitoring	SCU		141	REST	6-Oct	1147	NP	18.30	0.00	25.22										Yes	Yes	Yes	Yes		SA	A	A					
MW-104	Monitoring	SCU		142	REST	6-Oct	1145	NP	14.31	0.00	21.97	6-Oct	1210	6.77	28.2	1,688	1.9	-333.9	4.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-64	Monitoring	SCU		143	REST	6-Oct	1240	NP	21.67	0.00	34.08	6-Oct	1305	6.68	34.6	2,320	3.6	-322.3	20.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-65	Monitoring	SCU		144	REST	6-Oct	1330	19.12	19.62	0.50	28.78			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
RW-5	Recovery [d]				S Refinery			Not in gauging program						Not in sampling program											Y								
RW-5R	Recovery [d]	SCU		145	REST	6-Oct	1340	21.04	21.33	0.29	NM										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-102	Monitoring	SCU		146	REST	6-Oct	1345	NP	17.00	0.00	26.45	6-Oct	1410	6.72	28.5	2,240	3.1	-297.2	8.4	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
RW-4	Recovery [d]	SCU		147	REST	6-Oct	1425	NP	15.58	0.00	36.62										Yes	Yes	Yes	Yes		SA	A	A					
RW-6	Recovery [d]	SCU		148	REST	6-Oct	1420	17.51	21.25	3.74	34.90										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-99	Monitoring	SCU		149	REST	6-Oct	1510	20.46	21.52	1.06	27.80			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-66	Monitoring	SCU		150	REST	6-Oct	1517	NP	19.95	0.00	29.80	7-Oct	925	6.60	22.4	1,529	2.0	-214.7	7.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-28	Monitoring	SCU/OJD		151	REST	6-Oct	1525	NP	21.03	0.00	27.82	7-Oct	1110	7.32	23.4	3,100	1.1	-197.3	8.1	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-59	Monitoring	SCU		152	REST	6-Oct	1618	NP	18.11	0.00	32.72										Yes	Yes	Yes	Yes		SA	A	A					
MW-60	Monitoring	SCU		153	REST	6-Oct	1620	NP	19.35	0.00	37.78	7-Oct	1025	6.55	24.0	3,470	2.0	-315.6	5.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-107	Monitoring	SCU		154	REST	6-Oct	1527	17.35	18.68	1.33	19.05										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-128	Monitoring	SCU		155	REST	6-Oct	1540	19.06	21.20	2.14	35.35			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-116	Monitoring	SCU/OJD		156	REST	6-Oct	1600	NP	17.18	0.00	27.63	7-Oct	1025	6.73	20.2	3,510	1.9	-4.6	4.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC						
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
MW-46R	Monitoring	SCU/OJD		157	TMD	6-Oct	1610	NP	14.56	0.00	19.36	7-Oct	940	6.82	18.4	3,090	2.1	40.5	9.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-145	Monitoring	SCU		157.1	REST	6-Oct	1105	NP	20.04	0.00	32.10	6-Oct	1130	6.72	24.0	4,670	2.3	129.7	29.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-146	Monitoring	SCU		157.2	REST	6-Oct	1035	NP	23.30	0.00	33.40	6-Oct	1100	6.81	24.5	4,740	2.4	123.1	17.7	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-147	Monitoring	SCU		157.3	REST	6-Oct	955	NP	30.70	0.00	39.83	6-Oct	1020	6.65	21.3	5,310	5.3	152.5	170.0	Sl. Cloudy	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-148	Monitoring	SCU		157.4	REST	6-Oct	910	NP	34.40	0.00	40.38	6-Oct	940	6.47	22.3	3,610	5.9	159.7	62.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
UG-3R	Monitoring	SCU		158	REST	City well - Not addressed in 2H20					38.58										Yes	Yes	Yes	Yes		A	A	A				
UG-4	Monitoring	SCU		159	REST	City well - Not addressed in 2H20					39.24										Yes	Yes	Yes	Yes		A	A	A				
UG-1	Monitoring	SCU		160	REST	City well - Not addressed in 2H20					24.08										Yes	Yes	Yes	Yes		A	A	A				
UG-2	Monitoring	SCU		161	REST	City well - Not addressed in 2H20					29.28										Yes	Yes	Yes	Yes		A	A	A				
MW-101	Monitoring	TAB/RJM		162	REST	6-Oct	835	NP	15.06	0.00	24.10	6-Oct	900	6.71	24.7	1,734	2.0	-311.8	5.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-105	Monitoring	TAB		163	REST	6-Oct	1450	NP	11.18	0.00	17.20	6-Oct	1515	6.75	27.4	1,254	0.7	-362.6	10.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
RW-2	Recovery [d]	TAB		164	REST	6-Oct	1400	15.60	16.88	1.28	36.13										Yes	Yes	Yes	Yes	Y	SA	A	A				
MW-61	Monitoring	TAB		165	REST	6-Oct	1300	NP	14.97	0.00	29.30	6-Oct	1335	6.87	27.2	2,310	1.0	-354.7	4.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-62	Monitoring	TAB/OJD		166	REST	6-Oct	1510	NP	17.56	0.00	29.50	6-Oct	1535	6.57	22.3	2,570	1.3	-353.1	7.8	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-62R	Monitoring	TAB/OJD		166.1	REST	6-Oct	1555	NP	17.29	0.00	24.51	6-Oct	1620	6.61	23.6	2,200	1.3	-298.8	8.1	Clear, gray tint	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-93	Monitoring	TAB		167	REST	6-Oct	1420	11.86	11.90	0.04	20.23										Yes	Yes	Yes	Yes	Y	SA	A	A				
MW-43	Monitoring	TAB/RJM		168	REST	6-Oct	1445	NP	15.85	0.00	19.67	6-Oct	1510	6.75	26.8	3,120	1.6	-382.7	7.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-137	Monitoring	TAB/RJM		169	REST	6-Oct	1405	13.41	14.97	1.56	29.60			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-137A	Monitoring	TAB/RJM		169.1	REST	6-Oct	1425	13.49	14.62	1.13	14.88			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-138	Monitoring	TAB/RJM		170	REST	6-Oct	1330	14.81	17.88	3.07	24.81			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-138A	Monitoring	TAB/RJM		170.1	REST	6-Oct	1345	14.59	No water	>0.44	15.03			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-23	Monitoring	TAB/OJD		171	REST	6-Oct	1230	NP	18.31	0.00	23.10	6-Oct	1705	6.93	23.2	2,320	1.1	-334.4	7.3	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA	SA	x			
TEL-4	Monitoring	TAB		172	TEL	6-Oct	930	NP	14.80	0.00	27.27	6-Oct	955	6.48	24.2	3,210	0.8	-308.1	0.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
TEL-3	Monitoring	TAB		173	TEL	6-Oct	820	NP	15.90	0.00	27.19	6-Oct	845	6.52	23.4	2,250	3.0	-356.8	0.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
TEL-2	Monitoring	TAB		174	TEL	6-Oct	900	16.87	17.25	0.38	27.20			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
TEL-1	Monitoring	TAB		175	TEL	6-Oct	740	16.14	16.80	0.66	27.00			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x			
MW-39	Monitoring	TAB/RJM		176	REST	6-Oct	945	NP	16.84	0.00	25.44	6-Oct	1010	7.26	25.2	2,730	1.6	-299.1	6.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-98	Monitoring	TAB		177	REST	6-Oct	1040	NP	13.54	0.00	25.60	6-Oct	1105	6.62	25.6	2,650	0.8	-380.0	0.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
RW-10	Recovery [d]	TAB		178	REST	6-Oct	750	NP	16.76	0.00	22.49										Yes	Yes	Yes	Yes		SA	A	A				
MW-40	Monitoring	TAB		179	REST	6-Oct	1200	NP	15.40	0.00	24.75										Yes	Yes	Yes	Yes		SA	A	A				
MW-41	Monitoring	TAB/RJM		180	REST	6-Oct	930	NP	14.74	0.00	21.56										Yes	Yes	Yes	Yes		SA	A	A				

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC							
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
RW-9	Recovery [d]	TAB/RJM		181	REST	6-Oct	935	NP	16.75	0.00	21.83										Yes	Yes	Yes	Yes		SA	A	A					
MW-42	Monitoring	TAB		182	REST	6-Oct	1150	NP	17.04	0.00	24.32										Yes	Yes	Yes	Yes		SA	A	A					
MW-29	Monitoring	TAB		183	REST	6-Oct	1220	NP	22.19	0.00	24.22	7-Oct	925	7.23	22.9	3,070	1.2	-309.9	2.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
RW-#16B	Recovery	TAB/RJM		184	REST	6-Oct	925	Dry	Dry	Dry	17.70										Yes	Yes	Cracked pad	Yes		SA	A	A					
MW-30	Monitoring	TAB		185	REST	6-Oct	1130	NP	17.71	0.00	23.50			Not in sampling program							Yes	Yes	Yes	Yes		SA	Not in sampling program						
MW-56	Monitoring	TAB		186	NCL	6-Oct	1140	NP	18.51	0.00	26.50										Yes	Yes	Yes	Yes		SA	A	A					
MW-49	Monitoring	TAB/RJM		187	TEL	6-Oct	1235	NP	14.15	0.00	33.07	6-Oct	1300	6.55	25.7	2,870	2.5	-371.2	7.5	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-106	Monitoring	TAB/RJM		188	REST	6-Oct	1035	NP	11.81	0.00	22.80	6-Oct	1200	6.53	25.6	3,320	1.9	-392.9	7.3	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-45	Monitoring	TAB		189	NCL	6-Oct	1545	NP	13.20	0.00	15.05	6-Oct	1610	7.48	24.2	2,720	0.9	-226.3	3.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-139	Monitoring	CJH		190	REST	6-Oct	1030	NP	14.51	0.00	29.60	6-Oct	1055	6.70	22.5	4,190	1.6	-150.0	9.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-50	Monitoring	CJH		191	REST	6-Oct	1100	NP	15.41	0.00	28.22	6-Oct	1125	6.81	25.0	8,820	1.6	-6.1	7.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-97	Monitoring	CJH		192	REST	6-Oct	NM	NM	NM	NM	Construction in area; entire area covered with soil and gravel; not located, in conjunction with Navajo; Historical LNAPL														Y	SA	SA	SA	x				
MW-92	Monitoring	CJH		193	REST	6-Oct	1150	14.68	17.69	3.01	22.60			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
RW-1	Recovery [d]	CJH		194	REST	6-Oct	1200	17.61	18.21	0.60	35.39										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-91	Monitoring	CJH		195	REST	6-Oct	1210	14.87	14.91	0.04	25.35			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-90	Monitoring	CJH		196	REST	6-Oct	1220	NP	14.47	0.00	22.80	6-Oct	1245	6.65	23.6	3,540	1.6	-370.2	7.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-96	Monitoring	CJH		197	REST	6-Oct	1425	NP	15.03	0.00	25.57	6-Oct	1450	6.67	25.1	2,180	1.4	-365.1	6.5	Clear	Yes	Closure	Issue	Yes		SA	SA	SA	x				
MW-94	Monitoring	CJH		198	REST	6-Oct	1505	16.94	22.45	5.51	23.45			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
RW-8	Recovery [d]	CJH		199	REST	6-Oct	1515	18.17	21.72	3.55	37.22										Yes	Yes	Yes	Yes	Y	SA	A	A					
MW-67	Monitoring	CJH		200	REST	6-Oct	1525	14.42	16.28	1.86	27.30			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Yes	Yes	Y	SA	SA	SA	x				
MW-95	Monitoring	CJH		201	REST	6-Oct	1535	NP	17.13	0.00	25.37										Yes	Yes	Yes	Yes		SA	A	A					
RW-7	Recovery [d]	CJH		202	REST	6-Oct	1550	18.79	20.95	2.16	37.00										Yes	Yes	Yes	Yes	Y	SA	A	A					
NCL-34A	Monitoring	CJH		203	NCL	6-Oct	1605	15.01	No water	>4.25	19.26			No sampling (LNAPL 0.03' or greater)							Yes	Yes	Issue	Yes	Y	SA	SA	SA	x				
NCL-33	Monitoring	CJH		204	NCL	6-Oct	1620	NP	14.04	0.00	19.60	7-Oct	1030	6.44	22.8	4,770	1.6	-68.4	9.1	Clear, orange particles	Yes	Yes	Yes	Yes		SA	SA	SA	x				
NCL-44	Monitoring	CJH		205	NCL	6-Oct	1630	NP	13.81	0.00	21.34	7-Oct	950	6.61	20.8	3,050	1.7	-207.1	5.9	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
NCL-32	Monitoring	CJH		206	NCL	6-Oct	1635	NP	13.96	0.00	20.04	7-Oct	905	6.78	20.5	3,150	1.6	31.3	9.6	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
MW-108	Monitoring	CJH		207	NCL	6-Oct	1345	NP	17.89	0.00	27.74	6-Oct	1410	6.80	26.7	1,632	1.4	-389.6	9.0	Clear, yellow tint	Yes	Yes	Yes	Yes		SA	SA	SA	x				
NCL-31	Monitoring	CJH		208	NCL	6-Oct	1300	NP	14.44	0.00	20.16	6-Oct	1325	7.05	26.0	2,710	1.2	-286.1	5.4	Clear	Issue	Yes	Yes	Yes		SA	SA	SA	x				
MW-19	Monitoring	CJH		209	NCL	6-Oct	1340	NP	14.80	0.00	22.08			Not in sampling program							Yes	Yes	Issue	Yes		SA	Not in sampling program						
MW-55	Monitoring	BRH/TAB		210	NCL	6-Oct	1755	NP	16.64	0.00	26.85	7-Oct	825	6.59	20.9	2,900	2.0	38.8	1.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x				
RW-#17A	Recovery	CJH		211	REST	6-Oct	1650	Dry	Dry	Dry	16.01										Yes	Yes	Yes	Yes		SA	A	A					
MW-18	Monitoring	CJH		212	NCL	6-Oct	1645	NP	15.85	0.00	22.20										Yes	Yes	Yes	Yes		SA	A	A					

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Table 1: Gauging Data, Groundwater Field Parameters and Well Inspections, 2H20

Navajo Refining Company - Artesia Refinery, Artesia, New Mexico

Well ID	Well Type	HMI Use	HMI Use (# Samp Wells)	HMI Use (Field-Strategy Order)	Location	Gauge Date	Gauge Time	Hydrologic Monitoring-Collected Data (Gauging/Groundwater Field Parameter/Well Inspection)																PSH Expected?	Gauging Frequency	GW Sampling Frequency / Analysis per COC							
								Depth to LNAPL (ft btoc)	Depth to Water (ft btoc)	LNAPL Column (ft)	Total Depth (ft btoc)	Sample Date	Sample Time	pH (S.U.)	T (C)	Spec. Cond. (umho/cm)	D. O. (mg/l)	ORP (mg/l)	Turb. (NTU)	Water Clarity	Cap	Casing	Well Secured	Label			Purge Parameters	General Sampling Frequency	(Analysis per COC)				
MW-54A	Monitoring	CJH		213	NCL	6-Oct	905	NP	16.50	0.00	31.30	6-Oct	930	6.50	21.7	2,590	1.9	32.9	6.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-54B	Monitoring	CJH		214	NCL	6-Oct	940	NP	16.52	0.00	46.80										Yes	Yes	Yes	Yes		SA	B	B				
NCL-49	Monitoring	CJH		215	NCL	6-Oct	945	NP	19.62	0.00	32.18	6-Oct	1010	6.87	21.9	3,570	2.6	81.7	5.2	Clear	Yes	Yes	Yes	Yes		SA	SA	SA	x			
MW-53R	Monitoring	CJH		216	NCL	6-Oct	825	NP	14.56	0.00	24.05	6-Oct	850	6.88	21.7	2,190	2.9	71.4	8.0	Clear	Yes	Yes	Yes	Yes		SA	SA	SA*	x	future frequency TBD		
KWB-P3	Monitoring			Field E of Refinery				Not in gauging program						Not in sampling program											Not included in monitoring program due to distance from impacts							

Notes:

Abbreviations:

A = Annual (Mar/Apr event)
B = Biennial (starts Mar/Apr 2011)
BR = Bolton Road
DRO = Diesel Range Organics
E = East
EP = Evaporation Ponds
ft bgs = ft below ground surface
ft btoc = ft below top of casing
ft MSL = ft Mean Sea Level
GRO = Gasoline Range Organics
HR = Haldeman Road
in = inches
N = North
NA = Not accessible
NAPI = North API Separator
NCL = North Colony Landfarm
NE = Northeast
NW = Northwest
OCD = Oil Conservation District
PSH = Phase Separated Hydrocarbon
ROW = right of way
RR = Richey Road
S = South
SA = Semi-annual (Mar/Apr and Sep/Oct events)
SE = Southeast
SW = Southwest
TMD = Three Mile Ditch
TEL = Tetra Ethyl Lead Impoundment
UG = Upgradient
US285 = U.S. Highway 285
US82 = U.S. Highway 82
VOC = Volatile Organic Compounds
W = West
Y = Yes

= Well with recently gauged LNAPL (light nonaqueous phase liquid)

Note - groundwater samples are not collected from any well with LNAPL measured 0.03-ft thick, or greater

At wells scheduled for groundwater sampling (having LNAPL <0.03-ft, will have LNAPL removed), then will be sampled

Groundwater analytical methods can include:

1. Purge parameters to be measured and recorded in the field will include pH, temp, spec. cond., diss. oxy., and oxidation-reduction potential.
2. DRO by Method 8015Mod.
3. GRO by Method 8015Mod.
4. VOCs by Method 8260, to include methyl tert butyl ether (MTBE).
5. Total metals by Method 6010/6020 and/or 7470. Specific metals shown in heading, abbreviations from periodic chart (incl B, Cd, Co, U, per 3-7-16 State request).
6. Dissolved metals - same list as total metals but only analyzed during April event (field filtered by HMI)
7. Cyanide by Method SM4500.
8. Cations/anions to include Calcium, Potassium, and Sodium by Method 6010 or 6020 and Sulfate, Chloride and Fluoride by Method 300.
9. Nitrates/Nitrites as Nitrogen by Method 300.
10. Total Dissolved Solids by Method 2540C.

"-" indicates parameter not required.

Recovery trenches 11, 15, 16, 17 and 18 have multiple vertical "wells". Gauging & sampling points are: RW #11-0, RW #15C, RW #16B, RW #17A and RW #18A.

Wells installed prior to 2H20:

MW-53R; replaced MW-53 which was destroyed by road construction
MW-145
MW-146
MW-147
MW-148
MW-62R

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HMI Groundwater

Hydrologic Monitoring
1654 W. Sam Houston Pkwy. N.
Houston, Texas 77043

Phone 713.464.5206
Fax 713.464.5207

M E M O R A N D U M

Groundwater Monitoring Standard Operating Procedures
Navajo Refining LLC – Artesia, New Mexico

HMI conducts low-flow groundwater sampling in accordance with the site Sampling and Analysis Plan and EPA guidance (including Puls and Barcelona, 1996 EPA Guidance on Low-Flow Groundwater Sampling; REV No. 4, September 19, 2017, and Yeskis & Zavala, 2002, EPA/542:S-02/00, Groundwater Sampling Guidelines for Superfund and RCRA Project Managers).

Groundwater Sampling Methodology

HMI conducts low-flow groundwater sampling using a peristaltic pump and dedicated polyethylene tubing at wells with requisite depths-to-water. At a limited number of wells with depths-to-water greater than peristaltic range, low-flow groundwater sampling is conducted using dedicated or non-dedicated bladder pumps. In 2016, at no cost to TRC, HMI installed HMI-owned bladder pumps in a limited number of wells (approximately four). At such time that HMI no longer conducts routine groundwater monitoring at the site, it respectfully requests the opportunity to recover these dedicated bladder pumps. Sample intakes are set at midscreen, when possible (generally at least two feet from the base of the well). Sample intake depths are permanently marked, ensuring future sampling events consistently monitor the targeted water-bearing interval. During sampling with a peristaltic pump, the sample tube is attached to the pump using a one-foot section of dedicated, flexible silicone tubing (item #5703, Geotech Environmental Equipment, Inc.). A two-foot segment of polyethylene tubing connects the silicone tubing in the pump to the flow-through cell, using a disposable segment of silicone tubing. Purging commences through a sealed flow-through cell at EPA-recommended purge rates (generally 0.1 to 0.2 liters/minute), while well drawdown is monitored. Groundwater field parameter readings are measured at 0.5-liter intervals (generally an equivalent of one cell-volume "turnover"). Field parameters of pH, specific conductivity, temperature, dissolved oxygen, and oxidation-reduction potential are monitored inside the cell. Turbidity is monitored outside the cell. Groundwater field instrumentation is calibrated and recorded daily in accordance with manufacturer specifications.

Purging continues until a requisite volume of groundwater is purged (generally a minimum of 3,000 ml or six flow-through cell volumes), and field parameters have stabilized in accordance with EPA guidance:

Water Quality Parameters (Stabilization Parameters in Accordance with EPA (2002), Groundwater Sampling Guidelines for Superfund and RCRA Project Managers, Yeskis & Zavala, EPA/542:S-02/001)

- pH +/- 0.1 units;
- Temperature -
- Conductivity +/- 3%
- Dissolved Oxygen +/- 0.3 mg/L
- ORP +/- 10%
- Turbidity 10%

Immediately prior to sampling, the input tubing to the flow-through cell is disconnected from the disposable silicone receiving tubing on the input barb on the flow-through cell, and groundwater samples are collected directly into lab-supplied containers. Groundwater samples are placed in iced coolers, and remain in HMI's custody until shipped to ESC Lab Sciences via FedEx-overnight. Peristaltic tubes and/or dedicated bladder pumps may be dedicated in respective wells. Alternatively, dedicated tubing may be retrieved, bagged, labeled, and stored in tubs maintained at HMI. Wells with very limited water column thicknesses may be sampled with disposable bailers. Active recovery well and irrigation wells are sampled using sample ports. The purging and sampling process is documented on groundwater sampling field forms.

Cross-Contamination Prevention Program

Dedicated peristaltic tubing and dedicated bladder pumps are used as possible, to minimize any potential cross-contamination issues during the groundwater monitoring process. Remaining non-dedicated equipment (e.g., electronic gauging probes or non-dedicated bladder pumps, etc.) is properly decontaminated prior to use and between wells. The decontamination procedure may include a combination of chemical and mechanical decontamination. For example, scrubbing with ethyl alcohol (isopropanol) as warranted, followed by scrubbing using an Alconox-water solution, and distilled water rinse. The decontamination procedure for non-dedicated bladder pumps consists of cycling an Alconox-water solution through the pump bladder. Distilled water is cycled through the pump bladder, followed by decontaminating the exterior body of the pump, using the methods outlined above.

HMI Deliverables

HMI provides field documentation of groundwater monitoring activities in a deliverables package that includes a brief narrative, summary table (with gauging data, field parameters, well inspection data, and required analytical scope), groundwater sampling forms, field instrument calibration log, and chain-of-custody forms (by Refinery "Area"), and a groundwater sampling SOP memo.

HMI Groundwater

HYDROLOGIC MONITORING
JOB HAZARD ANALYSIS

Activity: Groundwater Sampling	**Date:** 6/16/20 6/17/20 10/6/20 – 10/7/20
	Project: Navajo-Artesia GW Samp.
Description of the work: Collect fluid level information and water samples from monitoring wells. NOTE: All site workers have STOP WORK Authorization at any time site conditions change and/or become unsafe	**Site Supervisor:** Scott Ude Scott Ude Scott Ude **Attendees Signatures:** Scott Ude Scott Ude Scott Ude

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
• General Hazards	• Accidents due to lack of training	• All workers will complete Safety Council Basic Plus Training and all site-specific training. • All workers will complete OSHA 40-hr HAZWOPER training with yearly updates. • Workers will be trained prior to performing new activities. • Tailgate safety meetings will be held daily.
	• Head Injury	• ANSI-approved hard hats will be worn at all times, in the manner they were designed (brim forward, no modifications no ball caps, etc.) Bump hats and Cowboy hard hats are not permitted.
	• Hearing Damage	• Workers will wear hearing protection whenever voices must be raised above normal conversational speech or when noise levels exceed 85 decibels due to loud noise sources such as working near heavy equipment.
	• Hand Injury	• Leather gloves will be worn when handling

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
		sharp, rough, or slippery surfaces. • Appropriate gloves for chemicals will be worn per project HASP.
	• Injuries resulting from manual lifting	• Workers will be instructed in safe lifting techniques (keep back straight, bend at knees, keep load close to body, lift smoothly, and do not twist at the waist. • Split heavy loads into smaller loads when possible. • Stretch before doing task • Make sure the path of travel is clear prior to the lift.
	• Foot Injury	• Workers will wear sturdy leather safety-toed boots that reach the ankle at all times. • For wet conditions or for chemical hazards proper water resistant overboots or chemical resistant safety-toed boots must be worn.
	• Eye Injury	• Workers will wear protective eyewear with sideshields that meet ANSI Z-87 at all times. If the worker wears prescription eyeglasses they must meet the same criteria or wear ANSI Z-87 safety over glasses. • Workers must have immediate access to Chemical monogoggles. Retaining rings are not permitted.
	• Slips, trips, and falls	• Walking/working surfaces will be kept free of clutter, debris, and congestion to the greatest extent possible. • Personnel should be aware of wet/muddy surfaces and use caution. Use caution when traversing uneven ground.
	• Injuries associated with insects, snakes, spiders, alligators, and poisonous plants	• Workers will wear snake chaps, leggings or sturdy rubber knee high boots when walking in uncleared, grassy areas. • Workers will avoid walking in areas where snakes or alligators may hide. Always look ahead where you are walking for signs of either. Use caution when moving or lifting objects that could be used for cover. Never reach under or behind objects, or into other areas where snakes or alligators may hide. • Workers will use insect repellant for all types of biting / stinging insects. Use care when opening wells to avoid bites and / or stings. • Workers will always use the buddy system and have a means of contacting emergency

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
		aid if needed by cell phone or Radio. • Workers will immediately wash any areas that were exposed to poisonous plants.
	• Chemical Exposure	• MSDS will be kept onsite in a location that all workers can access. • All workers must know where the emergency rally point is located when an evacuation alarm sounds in the plant. • Workers will sign in and out when they arrive and leave the work area.
	• Heat Stress	• All workers will take routine breaks in a cool, shaded area. • Workers will drink plenty of water throughout the day. • Workers will decrease intake of coffee and caffeinated soft drinks during working hours.
	• Vehicle accidents	• All vehicles must be inspected for safe operation onsite. • Vehicle operators must have a valid driver's license and will be instructed in safe operations while on the site. • Seat belts will be worn by all occupants. • When backing, use the buddy system or get out and look at position of objects. • All vehicles must contain a fire extinguisher, first aid kit, evacuation map, and route to hospital (map/directions). • Drivers will observe and not exceed posted plant speed limits. • Cell phone use is prohibited in a moving vehicle (drivers only) - hands free device not permitted. • Use caution at railroad crossings. • Watch for pedestrians walking into driving lanes.
	• Injury due to inclement weather	• Outdoor work will cease during extreme weather conditions, such as electrical storms, high wind, rain, and dangerous temperatures. • All equipment will be shut down when lightning is visible. • Workers will seek shelter indoors when possible or stay in vehicles.
• Groundwater Sampling	• Collect Measurements and Samples	• All site workers will wear proper PPE to prevent exposure to groundwater.

Work Activity Sequence	Potential Health and Safety Hazards	Hazard Controls
	• Using peristaltic pumps	• All workers using peristaltic pumps should inspect the power cord for damage before and after each use.
	• Fire extinguishers	• Fire extinguishers should be on hand and inspected.
	• Lifting	• All workers should use proper lifting techniques when lifting objects. Mechanical assistance may be used to lift objects weighing over 50 pounds.
	• Drive All Terrain Vehicles	• All workers that will drive All-Terrain Vehicles (ATVs) will follow site specific policies regarding use and operation of ATVs. • In addition, conditions of ATV use will be addressed on Safe Work Permit(s). • All workers will be trained in operating the ATV. • The maximum speed limit is 5 miles per hour. • Read owners manual prior to operating • ATVs are not made for multiple riders. Never carry anyone else on the ATV. • Stay seated at all times while ATV is in motion. • Do not operate the ATV on streets, highways or paved roads. • Driver must have a valid driver's license. • Driver exercise caution when loading and unloading ATV.

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6/16/20 Statewide 6/17/20 Statewide 10/6/20 - 10/7/20 Statewide

Hydrologic Monitoring, LLC (HMI) Job Hazard Analysis (JHA) Job Safety Analysis (JSA) and Personal Protective Equipment (PPE) Assessment	**Task Title:** Mitigating *Exposure to Coronavirus "COVID-19"*		**Date:** HMI Groundwater **New: 4-7-20; Revised:**
	Title: HMI employees, contractors, and visitors	**Supervisor (Print and Sign):**	**Prepared by:** HMI Contractor Safety and Crisis Support
Client Name / Site Location: HF / Artesia & Lovington	**Locations:** HMI-wide	**Business Unit:** All	**Reviewed By:** HMI Committee **Approved By:** HMI Committee

Required or Recommended Personal Protective Equipment:

☐ Hard Hat ☒ Safety Glasses ☐ HiVis Vest ☐ Safety Toe Boots ☒ Gloves: Disposable, Work, etc based on task ☐ Hearing Protection ☒ Other: See below

For certain tasks (see JHA below) the following are required:

- Potable water and soap (preferable) or hand sanitizer with 60%> alcohol
- Paper towels
- Disinfectant wipes
- Tissues
- Nitrile gloves
- Safety glasses or goggles
- Disinfectant spray list of cleaning products to kill Coronavirus

Diluted household bleach solutions can be used in place of disinfectant wipes or sprays if appropriate for the surface. Be sure to test the surface for color-fastness prior to use. Follow manufacturer's instructions for application and proper ventilation. Check that the product is not past its expiration date. Never mix household bleach with ammonia or other cleanser. Unexpired household bleach is effective against coronaviruses when properly diluted.

- Prepare a bleach solution by mixing:
  - 5 tablespoons (1/3rd cup) bleach per gallon of water or 4 teaspoons bleach per quart of water

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This JHA applies to the 2019 Novel Coronavirus (SARS-CoV-2) or the disease known as "COVID-19". The Centers for Disease Control and Prevention (CDC), World Health Organization, (WHO), Occupational Safety and Health Administration (OSHA), and other public health agencies are considering the outbreak of COVID-19 to be a pandemic. It is important that employees, contractors, and visitors take standard precautions recommended by CDC and OSHA. For OSHA's guidance related to Hazard Recognition regarding COVID-19 visit https://www.osha.gov/SLTC/covid-19/hazardrecognition.html.

Risk Assessment: Incomplete information about incubation, infectious period, and transmissibility, as well as evolving circumstances make a definitive risk assessment challenging. In light of this, awareness and operationally informed precautions are warranted. Risk increases with increased exposure to persons potentially infected with COVID-19, warranting enhanced precautions described below. HMI will continue to monitor the situation closely in coordination with appropriate stakeholders and will adjust guidance as appropriate. HMI employees, contractors, and visitors should continue to maintain situational awareness for this outbreak.

Personnel should practice good hygiene, wash hands frequently, and cover their cough or sneeze. Stay away from work if you are ill and contact your health provider for guidance. Avoid unnecessary congregate settings where COVID-19 exposure is more probable. Keep your hands below your chin, and avoid touching mouth, eyes, nose and mucous membranes where contaminated hands can spread the disease to your respiratory system. These basic preventative measures reduce the exposure potential for personnel and slow the spread of communicable diseases.

While most COVID-19 lab confirmed cases do display symptoms, some persons may display mild or no symptoms. Symptoms may appear at different stages of the disease.

Operations/Contractor Work	Risk Category	Hazards	Protective Measures / PPE Guidance
1. Fitness for Duty (working from home or before reporting to work)	**Low**	**1. Being unfit for duty – impacted by illness (e.g coronavirus)**	**1a**. Check that you are fit for duty. If you feel unwell or show signs or symptoms of the coronavirus, do not come to work. Current CDC guidance is that if you have a temperature above 100.4 F [37.8 C], or in close contact with someone suspected of having the coronavirus, then you must stay home. If you have an elevated temperature, do not come to work and contact your healthcare provider. Also, contact your supervisor. By coming to work and onto the project site, employees are self-certifying that they do not have a temperature or show other signs of being unwell and are able to work within the guidelines of the CDC.
2. General Field Work	**Low**	**2a. Working around others** **Signs and Symptoms of** COVID-19 include; • Fever • Cough	**2a**. If experiencing signs or symptoms of COVID-19 infection, such as fever, dry cough, or other flu-like symptoms, do not report to work. If symptoms begin while at work, stop what you are doing immediately and contact your supervisor and an HMI Representative. HMI employees and/or their immediate supervisor are also to contact Human Resources immediately. Personnel and contractors shall maintain at least 6-foot distance from each other. Practice social distancing at tailgate meetings and in break rooms and job trailers.

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		• Extreme Fatigue • Difficulty breathing • Other Flu Like Symptoms	Limit the number of people in job trailers and other confined areas so that this distance can be maintained. If possible, hold meetings outside. If indoors, open window(s) for circulation. Wipe down window handles prior to opening and use gloves to open. Even when practicing social distancing, limit the amount of people in groups to less than 10 people, or fewer if directed by a particular jurisdictional order.
		2b. Encountering frequent touch points and shared equipment	**2b**. Wipe down and disinfect equipment before use with soap and water or alcohol wipes. Wear disposable gloves if possible or regularly wash hands when handling tools or equipment. Replace gloves regularly or wash hands, especially before eating or drinking. Clean hands often with soap and water for at least 20 seconds: • after using the restroom, • after you have been in a public place, • before and after eating, • after blowing your nose, coughing, or sneezing, • after smoking or vaping in designated areas. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands, including around and under fingernails, and rub your hands together until they feel dry. Wear safety glasses and gloves (nitrile or other work gloves) to avoid contact and to reduce touching face, eyes, nose, and mouth. Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash. Immediately wash or sanitize your hands.
		2c. Eating lunch and bathroom breaks	**2c**. Be sure to wash hands with soap and water whenever a bathroom is nearby. At minimum, do so during bathroom and lunch breaks. Use a paper towel to door handle when exiting bathroom. If using outside toilet facilities (i.e. Porta Johns), wash hands with soap and water or hand sanitizer both before and after opening or closing the door. If wearing nitrile gloves, change gloves prior to using the toilet and remove and dispose of them in a trash receptacle when finished. Use hand sanitizer after you dispose of the gloves. Where possible, personnel are encouraged to pack meals and snacks as needed for the duration of the work day and avoid visiting stores and restaurants. If necessary, modify your schedule to avoid restaurants and public restrooms during peak (i.e., crowded), periods to minimize contact with the public. Use drive-through service for

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			food pick-up if available. When eating lunch as a group, try to do so outside or in a space with windows open. Wipe down windows prior to opening. Maintain a distance of at least 6 feet and do not share dishes (e.g., bag of chips, communal salad bowl, etc.). Refrain from sharing a field office coffee pot.
3. General Office Work	**Low**	**3a. Working around others**	**3a**. Work from home when possible. Clean hands often with soap and water for at least 20 seconds: • after using the restroom, • after you have been in a public place, • before and after eating, or • after blowing your nose, coughing, or sneezing. If soap and water are not readily available, use a hand sanitizer that contains at least 60% alcohol. Cover all surfaces of your hands, including around and under fingernails, and rub your hands together until your hands feel dry. Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow. Throw used tissues in the trash. Immediately wash or sanitize your hands. Sit at least six feet apart from others. Change work stations to accommodate this. Even if you are practicing social distancing, you must still limit groups of people to 10 or fewer. Do not hold in-person meetings. After tailgate meetings and/or JHA reviews, supervisors should seek verbal agreement from each attendee and note each acknowledgement rather than passing around for signature. Make hand-sanitizers, sanitizing wipes, and other hygienic supplies readily available. Do not eat or hang out in common areas.
		3b. Encountering frequent "touch points" and handling shared equipment	**3b**. Wipe down keyboards, mouse, phone, headset/headphones, and other "touch points". Limit contact of shared items. Wipe down surfaces before coming into contact with them. Wash hands after handling or wear disposable gloves. In reception areas, use your own pen to sign in and out of offices. Do not eat candy out of candy dishes.

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			Assign someone to clean and disinfect frequently touched surfaces daily. Follow the manufacturer's instructions for cleaning and disinfection products (e.g., concentration, application method, and contact time).
4. Essential Work (deemed by Operations, Project Manager, EHS) where a continued 6 foot distance between persons in not possible.	**Low-Medium**	**4a.**Examples such as Operation and Maintenance tasks, groundwater and potable water monitoring, ballast water sampling, post-closure care services, etc.	4a. Mitigation tactics such as cloth face covers, face shields, gloves, facing away from another person, etc. must be implemented.

Additional Information

Prior to starting work, check that required supplies (i.e., disinfectant spray and wipes, soap, hand sanitizer, nitrile gloves) are available. Request re-supply if stock runs low.

Use alcohol-based hand sanitizer that contains at least 60% alcohol. Wash hands with soap and water whenever available. Remember that soap, including bar soap, is generally available and is considered superior to hand sanitizer or disinfectant wipes and sprays. If disinfectants are unavailable, prepare diluted bleach solution as described on page 1 and use in their place.

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Common touch points and surfaces include but are not limited to:

*Arms on chairs *Table tops *Doorknobs and handles *Countertops *Elevator Buttons *Coffee Pots
*Refrigerator, microwave, dishwasher, toaster handles *Water Dispensers *Cabinet and file drawer knobs and handles
*Phone receivers, keypads *Copier, printer, and fax control buttons *Sink faucets *Light switches
*Shared office supplies such as staplers, paper cutters, scissors, packaging tape dispensers, writing utensils *Vehicle handles, tailgates, etc.

If personnel are showing possible symptoms of or have been in recent direct contact with others showing symptoms of coronavirus, stop work and notify the site supervisor and HR.

Visit the CDC webpage on cleaning and disinfecting procedures: CDC Guidance for Community and Residential Cleaning-Disinfection for Coronavirus

A list of approved disinfectants for use against COVID-19, is available here: US EPA List of Disinfectants Effective Against Coronaviruses.

Special Considerations:

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-6A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(1)

Well Inspection Information

Initials: MDB

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1515	NP	14.26	0.00	19.04	14.1	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-6A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-6B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(2)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1520	NP	14.13	0.00	52.28	47.3	Yes	Yes	Yes	Yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-6B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-85
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(3)

Initials: MMA

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1650	11.71	12.28	0.57	20.34		Yes	Yes	Yes	Yes		Weather: Clear 90s
						(2' off bottom, if sampled)						

* pulled oil-sorbant sock and allowed well to equilibrate prior to gauging

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		Not sampled due to presence of LNAPL ≥ 0.03						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-85			Not Sampled					Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-86
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(4)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1610	NP	11.45	0.00	19.21	17.21	Yes	Yes	Yes	Yes		Weather: Clear 90s

Well Purging Record

*Removed oil-sorbent sock and allowed well to equilibrate prior to gauging

* Product on probe

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1615	11.58	0.5	7.09	25.2	7800	1.6	-333.4	21.9	Clear/yellow tint/odor/	Low-flow groundwater sample:
↓	1617	11.65	1.0	7.03	24.5	7680	1.3	-339.5	19.4	black particles	(A) peristaltic pump w/ ded tubing
	1620	11.71	1.5	6.98	24.0	7650	1.0	-343.6	17.3	↓	B) ded bladder pump
	1622	11.77	2.0	6.97	23.8	7640	0.9	-345.6	15.8	↓	C) non-ded bladder pump; or
	1625	11.81	2.5	6.95	23.6	7620	0.9	-348.2	13.0	↓	Standard groundwater sample:
	1627	11.86	3.0	6.93	23.6	7600	1.0	-351.2	10.7	↓	D) bailer due to limited column; or
↓	1630	11.90	3.5	6.92	23.5	7590	1.0	-353.1	9.3	↓	E) recovery well cycling sample
	1632	11.94	4.0	6.91	23.5	7570	1.0	-355.7	8.8	✓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1635	MW-86	11.94	6.91	23.5	7570	1.0	-355.7	8.8	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-120
Event: 21420
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(5)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	835	NP	14.02	0.00	28.00	17.5	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	840	14.29	0.5	7.02	21.0	8850	2.9	-89.6	10.3	Clear/colorless	*Low-flow groundwater sample:*
	842	14.29	1.0	7.07	21.1	8630	2.1	-109.3	8.7		(A) peristaltic pump w/ ded tubing
	845	14.29	1.5	7.12	21.1	8460	1.6	-119.3	8.1		B) ded bladder pump
	847	14.29	2.0	7.13	21.1	8460	1.4	-122.4	6.3		C) non-ded bladder pump; or
	850	14.29	2.5	7.14	21.1	8410	1.2	-125.1	6.2		*Standard groundwater sample:*
	852	14.29	3.0	7.16	21.1	8390	1.2	-128.6	6.0		D) bailer due to limited column; or
	855	14.29	3.5	7.18	21.1	8360	1.2	-132.1	5.4		E) recovery well cycling sample
	857	14.29	4.0	7.19	21.1	8370	1.2	-132.6	5.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	900	MW-120	14.29	7.19	21.1	8370	1.2	-132.6	5.1	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-121
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (6)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	915	NP	14.12	0.00	27.31	17.5	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	920	14.24	0.5	7.32	22.6	5830	2.1	33.9	19.6	Clear w orange particles	*Low-flow groundwater sample:*
	922	14.31	1.0	7.30	22.4	5760	1.9	34.0	14.3	colorless	(A) peristaltic pump w/ ded tubing
	925	14.35	1.5	7.28	22.3	5750	1.7	33.6	12.6		B) ded bladder pump
	927	14.37	2.0	7.26	22.3	5730	1.6	33.9	10.8		C) non-ded bladder pump; or
	930	14.38	2.5	7.25	22.3	5730	1.5	34.1	10.1	Clear	*Standard groundwater sample:*
	932	14.39	3.0	7.24	22.3	5730	1.5	34.3	9.8		D) bailer due to limited column; or
	935	14.40	3.5	7.24	22.3	5740	1.4	34.5	9.6		E) recovery well cycling sample
	937	14.41	4.0	7.23	22.3	5740	1.4	34.9	9.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	940	MW-121	14.41	7.23	22.3	5740	1.4	34.9	9.5	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-84
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(7)

Initials: MNB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1525	NP	10.81	0.00	20.56	15.2	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1530	10.91	0.5	7.24	25.9	10100	1.8	-138.4	17.3	Clear / Yellow tint	*Low-flow groundwater sample:*
↓	1532	10.95	1.0	7.21	25.4	10140	1.7	-136.2	14.8	↓	(A) peristaltic pump w/ ded tubing
	1535	10.98	1.5	7.19	24.9	10120	1.4	-135.3	13.4		B) ded bladder pump
	1537	11.01	2.0	7.17	24.8	10120	1.3	-135.2	10.5		C) non-ded bladder pump; or
	1540	11.03	2.5	7.16	24.7	10110	1.2	-135.0	9.8		*Standard groundwater sample:*
	1542	11.06	3.0	7.15	24.4	10140	1.0	-134.8	9.4		D) bailer due to limited column; or
	1545	11.08	3.5	7.14	24.4	10100	1.0	-134.7	8.1		E) recovery well cycling sample
	1547	11.11	4.0	7.13	24.4	10100	1.0	-134.0	7.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1550	MW-84	11.11	7.13	24.4	10100	1.0	-134.0	7.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-122
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(8)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1050	NP	12.02	0.00	23.32	18.4	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1055	12.62	0.5	7.50	23.2	6340	2.2	-124.0	41.4	Clear/Colorless	*Low-flow groundwater sample:*
	1057	12.70	1.0	7.43	21.9	5878	1.8	-123.7	40.2		(A) peristaltic pump w/ ded tubing
	1100	12.75	1.5	7.40	21.7	5710	1.4	-123.0	38.5		B) ded bladder pump
	1102	12.82	2.0	7.38	21.7	5630	1.3	-122.4	35.8		C) non-ded bladder pump; or
	1105	12.86	2.5	7.36	21.5	5590	1.1	-121.8	32.4		*Standard groundwater sample:*
	1107	12.90	3.0	7.34	21.4	5540	1.1	-122.0	30.3		D) bailer due to limited column; or
	1110	12.93	3.5	7.33	21.4	5530	1.1	-124.2	29.2		E) recovery well cycling sample
	1112	12.96	4.0	7.32	21.5	5500	1.1	-123.1	28.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1115	MW-122	12.96	7.32	21.5	5500	1.1	-123.1	28.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-81
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (9)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	955	NP	12.42	0.00	18.62	13.7	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-81								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-80
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(10)

Initials: MPB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1000	NP	10.44	0.00	19.69	14.7	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge Only					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-80								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+ EB-EP-04

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-79
Event: 2420
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(11)

Initials: MJB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1005	NP	11.71	0.00	19.24	15.0	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1010	11.89	0.5	7.36	22.2	8440	2.7	-29.8	13.6	Clear / colorless	*Low-flow groundwater sample:*
↓	1012	11.92	1.0	7.29	20.9	8590	2.0	-44.6	10.4	↓	(A) peristaltic pump w/ ded tubing
	1015	11.94	1.5	7.26	20.9	8610	1.5	-48.3	9.6		B) ded bladder pump
	1017	11.96	2.0	7.24	20.8	8620	1.3	-49.9	8.3		C) non-ded bladder pump; or
	1020	11.99	2.5	7.22	20.8	8640	1.1	-51.0	7.2		*Standard groundwater sample:*
	1022	12.01	3.0	7.21	20.8	8640	1.2	-52.2	5.1		D) bailer due to limited column; or
	1025	12.03	3.5	7.20	20.8	8640	1.2	-53.4	4.8		E) recovery well cycling sample
↓	1027	12.05	4.0	7.19	20.8	8650	1.2	-54.4	4.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1030	MW-79	12.05	7.19	20.8	8650	1.2	-54.4	4.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1045	EB-EP-04	NA	—	—	—	—	—	→	Same	Same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-82
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(12)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1605	NP	11.29	0.00	20.02	15.0	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5		Gauge	Only					E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-82								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+EB-EP-01

+Trip Blank-EP-01

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-74
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(13)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1410	NP	11.01	0.00	20.19	14.8	Yes	Yes	Yes	Yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1415	11.11	0.5	7.29	24.6	10680	2.0	46.7	8.3	Clear / colorless	*Low-flow groundwater sample:*
↓	1417	11.15	1.0	7.23	23.8	10650	1.8	50.9	7.7	↓	(A) peristaltic pump w/ ded tubing
	1420	11.16	1.5	7.18	23.3	10590	1.6	53.8	7.3		B) ded bladder pump
	1422	11.17	2.0	7.18	23.1	10590	1.3	55.0	6.4		C) non-ded bladder pump; or
	1425	11.17	2.5	7.13	22.7	10550	1.1	56.3	6.1		*Standard groundwater sample:*
	1427	11.17	3.0	7.12	22.7	10578	1.1	56.9	5.8		D) bailer due to limited column; or
↓	1430	11.17	3.5	7.11	22.7	10540	1.1	57.5	4.9	↓	E) recovery well cycling sample
	1432	11.17	4.0	7.10	22.6	10530	1.0	58.0	3.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1435	MW-74	11.17	7.10	22.6	10530	1.0	58.0	3.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1450	EB-EP-01	NA	—	—	—	—	—	→	Same	Same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-73
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(14)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1580	NP	11.92	0.00	19.60	14.6	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge	Only				D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-73								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-2A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(15)

Initials: MMB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1130	NP	11.65	0.00	17.30	15.0	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1135	11.88	0.5	7.49	24.5	6150	2.2	-3.3	10.2	Clear/colorless	*Low-flow groundwater sample:*
↓	1137	11.94	1.0	7.41	24.2	6070	2.0	-10.6	8.7	↓	(A) peristaltic pump w/ ded tubing
	1140	12.00	1.5	7.36	23.9	6070	1.7	-11.6	8.1		B) ded bladder pump
	1142	12.03	2.0	7.34	23.7	6110	1.5	-11.0	7.7		C) non-ded bladder pump; or
	1145	12.05	2.5	7.30	23.6	6210	1.4	-16.8	7.4		*Standard groundwater sample:*
	1147	12.07	3.0	7.26	23.6	6370	1.4	-14.3	7.1		D) bailer due to limited column; or
	1150	12.10	3.5	7.24	23.6	6390	1.4	-17.5	6.7		E) recovery well cycling sample
↓	1152	12.12	4.0	7.23	23.6	6400	1.4	-20.3	6.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1155	MW-2A	12.12	7.23	23.6	6400	1.4	-20.3	6.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-2B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(16)

Initials: MOB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1210	NP	12.69	0.00	52.00	NS	Yes	Yes	Yes	Yes		Weather: Clear 80's
									*			

*Needs new lock

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20			0.5		Gauge		Only				*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-2B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-72
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(17)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1220	NP	9.17	0.00	13.93	11.9	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-72								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-6
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(18)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1225	NP	11.90	0.00	26.69	21.6	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1230	12.05	0.5	7.20	25.0	15310	1.9	-101.7	26.4	Clear/colorless	*Low-flow groundwater sample:*
	1232	12.05	1.0	7.17	23.1	15630	1.7	-101.9	20.5		(A) peristaltic pump w/ ded tubing
	1235	12.05	1.5	7.15	22.5	15640	1.5	-101.9	17.6		B) ded bladder pump
	1237	12.05	2.0	7.13	22.0	15760	1.2	-101.2	12.8		C) non-ded bladder pump; or
	1240	12.05	2.5	7.11	21.9	15800	1.1	-100.2	9.4		*Standard groundwater sample:*
	1242	12.05	3.0	7.10	21.9	15800	1.0	-98.7	8.5		D) bailer due to limited column; or
	1245	12.05	3.5	7.09	21.8	15830	1.0	-97.2	6.3		E) recovery well cycling sample
	1247	12.05	4.0	7.08	21.8	15850	1.0	-96.5	5.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1250	OCD-6	12.05	7.08	21.8	15850	1.0	-96.5	5.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-7AR
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (19)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1305	NP	11.01	0.00	21.28	16.0	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1310	11.22	0.5	7.21	27.3	13300	1.9	-135.4	15.6	Clear/colorless	*Low-flow groundwater sample:*
	1312	11.25	1.0	7.18	25.9	13240	1.7	-134.7	12.4		(A) peristaltic pump w/ ded tubing
	1315	11.27	1.5	7.15	25.2	13200	1.6	-134.9	10.6		B) ded bladder pump
	1317	11.30	2.0	7.14	25.0	13160	1.5	-135.1	9.9		C) non-ded bladder pump; or
	1320	11.32	2.5	7.13	24.8	13180	1.4	-135.3	9.1		*Standard groundwater sample:*
	1322	11.35	3.0	7.12	24.6	13130	1.3	-135.3	8.7		D) bailer due to limited column; or
	1325	11.37	3.5	7.12	24.4	13090	1.3	-135.4	8.0		E) recovery well cycling sample
	1327	11.39	4.0	7.11	24.3	13070	1.3	-135.5	7.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1330	OCD-7AR	11.39	7.11	24.3	13070	1.3	-135.5	7.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-7B
Event: 21120
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (20)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1345	NP	11.00	0.00	56.85	51.9	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge Only					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-7B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-7C
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MDB (21)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1350	NP	10.73	0.00	71.95	NS	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Gauge	Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-7C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Annually- bagged tube + guidance device

Monitoring Well Purging and Sampling Record

(Tool Co. locks gate by 5:00 PM)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#15C
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other ✓	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(22)

Initials: MDB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	810	19.26	19.30	0.04	22.30	20.0	Yes	Yes	Yes	Yes		Weather: Clear 50's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
	RW-#15C									Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-48
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: MGM (23)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	805	21.41	21.49	0.08	32.00	26.9	Yes	Yes	*Issue	Yes		Weather: Clear 50s

Well Purging Record

*Product on probe

*At-grade plate missing, At-grade pad cracked per 1#19 ; completion needs complete re-do

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		Not Sampled due to presence						B) ded bladder pump
			2.0		of LNAPL ≥ 0.03						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-48			Not	Sampled				Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-130
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(24)

Initials: MOB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	800	NP	23.19	0.00	45.00	37.4	Yes	Yes	Yes	Yes		Weather: Clear 60s
10-7-20	830	NP	23.20	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	835	23.26	0.5	6.82	22.3	3170	3.1	25.7	15.2	Clear/colorless	*Low-flow groundwater sample:*
	837	23.28	1.0	6.79	21.7	3140	2.7	33.9	12.3		(A) peristaltic pump w/ ded tubing
	840	23.28	1.5	6.77	21.5	3110	2.5	40.8	10.1		B) ded bladder pump
	842	23.28	2.0	6.74	21.5	3070	2.5	44.6	8.7		C) non-ded bladder pump; or
	845	23.28	2.5	6.73	21.6	3050	2.5	46.8	7.2		*Standard groundwater sample:*
	847	23.28	3.0	6.71	21.6	3040	2.4	48.2	6.5		D) bailer due to limited column; or
	850	23.28	3.5	6.70	21.6	3010	2.3	50.0	6.1		E) recovery well cycling sample
	852	23.28	4.0	6.70	21.6	3010	2.3	51.2	5.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	855	MW-130	23.28	6.70	21.6	3010	2.3	51.2	5.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-4
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(25)

Initials: MDW

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1730	27.03	28.31	1.28	41.75	31.7	Yes	Yes	Yes	Yes		Weather: Clear 90s

Well Purging Record

* Pulled sock and allowed well to equilibrate prior to gauging

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		Not sampled due to presence						B) ded bladder pump
			2.0		of LNAPL ≥ 0.03'						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Gauge to top of 1-in galvanized pipe)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-19
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC __
Upright __	4-in __	SS __
Vault ✓	Other ✓	Other ✓

Hydrologic Monitoring
for TRC
Houston, Texas

(26)

Initials: MM

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	815	27.80	27.89	0.09	NM	10' off	Yes	Yes	Yes	Yes		Weather: Clear 50's
						base as needed						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5					(Gauge Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-19								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-76
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (27)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1655	NP	12.77	0.00	20.33	16.0	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1700	12.82	0.5	6.95	20.5	7870	3.1	-189.5	10.1	colorless/clear	*Low-flow groundwater sample:*
	1702	12.82	1.0	6.90	20.3	7820	2.5	-192.5	9.5		(A) peristaltic pump w/ ded tubing
	1705	12.82	1.5	6.87	20.2	7790	2.1	-196.8	9.0		B) ded bladder pump
	1707	12.82	2.0	6.85	20.2	7780	2.0	-199.1	8.7		C) non-ded bladder pump; or
	1710	12.82	2.5	6.84	20.1	7770	1.9	-201.5	8.2		*Standard groundwater sample:*
	1712	12.82	3.0	6.84	20.1	7760	1.9	-203.8	7.9		D) bailer due to limited column; or
	1715	12.82	3.5	6.83	20.1	7760	1.8	-204.5	7.5		E) recovery well cycling sample
	1717	12.82	4.0	6.83	20.2	7750	1.8	-205.6	7.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1720	MW-76	12.82	6.83	20.2	7750	1.8	-205.6	7.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-77
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (28)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1650	NP	11.01	0.00	20.52	15.2	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-77								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-78
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (29)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1645	NP	11.04	0.00	19.57	14.6	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Gauge Only

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-78								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-75
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (30)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1600	NP	11.07	0.00	23.74	18.4	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1605	11.10	0.5	7.28	20.6	7130	2.2	-141.2	13.2	colorless / clear	*Low-flow groundwater sample:*
	1607	11.11	1.0	7.22	20.3	7090	1.7	-145.9	10.9		(A) peristaltic pump w/ ded tubing
	1610	11.11	1.5	7.20	20.2	7070	1.5	-149.2	10.2		B) ded bladder pump
	1612	11.11	2.0	7.19	20.2	7060	1.4	-150.6	9.5		C) non-ded bladder pump; or
	1615	11.11	2.5	7.19	20.1	7060	1.4	-151.2	8.9		*Standard groundwater sample:*
	1617	11.11	3.0	7.18	20.1	7050	1.3	-151.5	8.2		D) bailer due to limited column; or
	1620	11.11	3.5	7.18	20.1	7050	1.3	-152.1	7.9		E) recovery well cycling sample
	1622	11.11	4.0	7.18	20.2	7060	1.3	-153.8	7.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1625	MW-75	11.11	7.18	20.2	7060	1.3	-153.8	7.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-83
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (31)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1745	NP	11.01	0.00	19.91	15.6	Yes	Yes	Yes	Yes		Weather: Clear 60's
10/7/20	820	NP	11.03	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	825	11.12	0.5	7.07	21.6	5920	2.9	-121.5	10.5	colorless/clear	*Low-flow groundwater sample:*
	827	11.17	1.0	7.03	21.3	5980	2.1	-126.3	9.1		(A) peristaltic pump w/ ded tubing
	830	11.18	1.5	7.00	21.0	6010	1.9	-131.5	8.6		B) ded bladder pump
	832	11.18	2.0	6.98	20.8	6080	1.8	-135.9	8.3		C) non-ded bladder pump; or
	835	11.18	2.5	6.97	20.7	6120	1.8	-139.2	7.5		*Standard groundwater sample:*
	837	11.18	3.0	6.97	20.7	6130	1.7	-141.5	7.1		D) bailer due to limited column; or
	840	11.18	3.5	6.96	20.6	6130	1.7	-143.8	6.9		E) recovery well cycling sample
	842	11.18	4.0	6.96	20.6	6140	1.7	-145.9	6.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	845	MW-83	11.18	6.96	20.6	6140	1.7	-145.9	6.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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+ Dup-EP-03

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-3
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (32)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1750	NP	13.08	0.00	22.10	18.1	Yes	Yes	Yes	Yes		Weather: Clear - 60's
10/7/20	905	NP	13.10	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	910	13.15	0.5	7.12	20.1	6620	3.5	-19.4	10.1	colorless/clear	*Low-flow groundwater sample:*
	912	13.16	1.0	7.08	19.8	6590	2.5	-18.5	9.2		(A) peristaltic pump w/ ded tubing
	915	13.16	1.5	7.05	19.7	6570	2.2	-17.9	8.9		B) ded bladder pump
	917	13.16	2.0	7.02	19.6	6560	2.1	-17.3	8.7		C) non-ded bladder pump; or
	920	13.16	2.5	7.01	19.6	6560	2.1	-17.0	8.0		*Standard groundwater sample:*
	922	13.16	3.0	7.01	19.5	6550	2.0	-16.8	7.5		D) bailer due to limited column; or
	925	13.16	3.5	7.00	19.5	6550	2.0	-16.7	7.1		E) recovery well cycling sample
	927	13.16	4.0	7.00	19.5	6540	2.0	-16.5	6.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	930	MW-3	13.16	7.00	19.5	6540	2.0	-16.5	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	900	Dup-EP-03	13.16	7.00	19.5	6540	2.0	-16.5	6.8	Same	Same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-88
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (33)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1230	NP	10.71	0.00	20.31	14.8	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1235	10.76	0.5	7.12	21.0	6730	2.5	-33.4	12.5	colorless/ clear w/	*Low-flow groundwater sample:*
	1237	10.77	1.0	7.08	20.8	6790	2.0	-39.6	10.2	orange particles	(A) peristaltic pump w/ ded tubing
	1240	10.77	1.5	7.05	20.7	6820	1.7	-41.3	9.7		B) ded bladder pump
	1242	10.77	2.0	7.03	20.7	6840	1.6	-45.9	8.9		C) non-ded bladder pump; or
	1245	10.77	2.5	7.02	20.6	6850	1.6	-47.2	8.5		*Standard groundwater sample:*
	1247	10.77	3.0	7.02	20.6	6850	1.5	-49.1	7.6		D) bailer due to limited column; or
	1250	10.77	3.5	7.01	20.6	6860	1.5	-50.2	7.1		E) recovery well cycling sample
↓	1252	10.77	4.0	7.01	20.6	6860	1.5	-52.3	6.8	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1255	MW-88	10.77	7.01	20.6	6860	1.5	-52.3	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ DUP-EP-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-22A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (34)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1315	NP	9.92	0.00	22.65	17.4	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1320	9.98	0.5	7.09	21.6	14,270	2.7	-81.3	9.1	colorless / clear	*Low-flow groundwater sample:*
↓	1322	10.04	1.0	7.05	21.6	14,300	2.3	-85.1	8.6	↓	(A) peristaltic pump w/ ded tubing
	1325	10.07	1.5	7.01	21.5	14,330	2.1	-89.5	8.0		B) ded bladder pump
	1327	10.08	2.0	6.99	21.5	14,370	1.9	-92.1	7.6		C) non-ded bladder pump; or
	1330	10.09	2.5	6.96	21.4	14,390	1.9	-94.8	7.1		*Standard groundwater sample:*
	1332	10.09	3.0	6.95	21.3	14,420	1.8	-96.1	6.9		D) bailer due to limited column; or
	1335	10.10	3.5	6.95	21.2	14,430	1.8	-97.5	6.7		E) recovery well cycling sample
↓	1337	10.10	4.0	6.94	21.2	14,440	1.8	-97.9	6.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1340	MW-22A	10.10	6.94	21.2	14,440	1.8	-97.9	6.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1100	DUP-EP-02	10.10	6.94	21.2	14,440	1.8	-97.9	6.5	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-22B
Event: 21420
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (35)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1415	NP	9.76	0.00	54.66	49.7	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-22B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-10
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(36)

Initials: SCD

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1420	NP	7.46	0.00	18.45	13.3	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1425	7.47	0.5	7.02	21.5	6910	3.0	-134.6	9.1	colorless/clear w/	Low-flow groundwater sample:
↓	1427	7.48	1.0	6.97	21.2	6850	2.7	-121.3	8.5	orange particles	(A) peristaltic pump w/ ded tubing
	1430	7.48	1.5	6.95	21.1	6810	2.5	-115.6	8.0	↓	B) ded bladder pump
	1432	7.48	2.0	6.94	21.1	6790	2.4	-112.8	7.3		C) non-ded bladder pump; or
	1435	7.48	2.5	6.94	21.0	6770	2.4	-110.3	7.0		Standard groundwater sample:
	1437	7.48	3.0	6.93	21.0	6760	2.3	-109.5	6.8		D) bailer due to limited column; or
	1440	7.48	3.5	6.93	21.0	6750	2.3	-108.7	6.2		E) recovery well cycling sample
↓	1442	7.48	4.0	6.93	21.1	6750	2.3	-107.5	5.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1445	MW-10	7.48	6.93	21.1	6750	2.3	-107.5	5.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-123
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (37)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1505	NP	7.94	0.00	25.71	25.0	Yes	Yes	Yes	Yes		Weather: Clear 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1510	7.95	0.5	7.01	20.7	6580	3.2	-191.5	10.1	colorless/ clear	*Low-flow groundwater sample:*
	1512	7.95	1.0	6.95	20.5	6530	2.5	-168.9	9.6		(A) peristaltic pump w/ ded tubing
	1515	7.95	1.5	6.93	20.4	6500	2.2	-155.2	9.0		B) ded bladder pump
	1517	7.95	2.0	6.92	20.3	6470	2.0	-151.3	8.7		C) non-ded bladder pump; or
	1520	7.95	2.5	6.92	20.3	6450	1.9	-147.2	8.3		*Standard groundwater sample:*
	1522	7.95	3.0	6.91	20.2	6440	1.9	-146.1	8.0		D) bailer due to limited column; or
	1525	7.95	3.5	6.91	20.2	6430	1.8	-145.8	7.5		E) recovery well cycling sample
	1527	7.95	4.0	6.91	20.2	6430	1.8	-145.2	7.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1530	MW-123	7.95	6.91	20.2	6430	1.8	-145.2	7.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-4A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD

(38)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1135	NP	13.23	0.00	16.55	Well Base	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1140	13.24	0.5	7.10	22.7	6850	3.2	-138.1	10.5	colorless/clear w/	*Low-flow groundwater sample:*
↓	1142	13.24	1.0	7.07	22.5	6810	2.9	-142.5	9.7	black particles	(A) peristaltic pump w/ ded tubing
	1145	13.24	1.5	7.04	22.3	6786	2.7	-145.9	8.9	↓	B) ded bladder pump
	1147	13.24	2.0	7.02	22.3	6760	2.6	-147.1	8.5		C) non-ded bladder pump; or
	1150	13.24	2.5	7.01	22.2	6750	2.6	-148.2	8.2		*Standard groundwater sample:*
	1152	13.24	3.0	7.01	22.2	6740	2.5	-148.7	7.8		D) bailer due to limited column; or
	1155	13.24	3.5	7.00	22.1	6740	2.5	-149.1	7.5		E) recovery well cycling sample
↓	1157	13.24	4.0	7.00	22.1	6730	2.5	-149.6	7.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1200	MW-4A	13.24	7.00	22.1	6730	2.5	-149.6	7.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-4B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (39)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1220	NP	13.00	0.00	72.37	67.4	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-4B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+EB-EP-03

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SLD (40)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1025	NP	10.32	0.00	20.15	14.8	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1030	10.38	0.5	7.25	21.3	9410	2.9	-125.4	10.9	clear/colorless w/	*Low-flow groundwater sample:*
↓	1032	10.38	1.0	7.19	21.0	9470	2.5	-127.5	9.1	orange particles	(A) peristaltic pump w/ ded tubing
↓	1035	10.38	1.5	7.15	20.9	9500	2.2	-130.6	8.6	↓	B) ded bladder pump
↓	1037	10.38	2.0	7.12	20.7	9520	2.1	-133.9	8.0	↓	C) non-ded bladder pump; or
↓	1040	10.38	2.5	7.10	20.7	9540	1.9	-134.5	7.5	↓	*Standard groundwater sample:*
↓	1042	10.38	3.0	7.09	20.5	9560	1.7	-136.8	7.1	↓	D) bailer due to limited column; or
↓	1045	10.38	3.5	7.09	20.4	9570	1.6	-137.5	6.8	↓	E) recovery well cycling sample
↓	1047	10.38	4.0	7.08	20.4	9570	1.6	-138.1	6.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1050	MW-5A	10.38	7.08	20.4	9570	1.6	-138.1	6.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	1110	EB-EP-03	NA	—	—	—	—	—	→	same	same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: scp (41)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1125	NP	10.41	0.00	53.54	48.5	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-5B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-5C
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (42)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1120	NP	10.61	0.00	71.64	66.6	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-5C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+ DUP-EP-01

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: MW-7A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (43)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	915	NP	10.99	0.00	18.65	13.6	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	920	11.08	0.5	7.19	19.6	8540	2.7	-76.5	11.9	Clear / colorless	Low-flow groundwater sample:
	922	11.09	1.0	7.12	19.9	8520	2.1	-81.2	9.8		(A) peristaltic pump w/ ded tubing
	925	11.09	1.5	7.16	20.1	8490	1.9	-84.9	7.5		B) ded bladder pump
	927	11.09	2.0	7.08	20.1	8470	1.7	-87.1	7.0		C) non-ded bladder pump; or
	930	11.09	2.5	7.07	20.2	8460	1.6	-90.2	6.7		Standard groundwater sample:
	932	11.09	3.0	7.07	20.2	8460	1.6	-91.9	6.2		D) bailer due to limited column; or
	935	11.09	3.5	7.06	20.2	8450	1.5	-92.5	5.9		E) recovery well cycling sample
	937	11.09	4.0	7.06	20.2	8450	1.5	-93.3	5.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	940	MW-7A	11.09	7.06	20.2	8450	1.5	-93.3	5.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	900	DUP-EP-01	11.09	7.06	20.2	8450	1.5	-93.3	5.2	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-7B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (44)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1015	NP	10.81	0.00	52.56	47.6	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-7B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank - EP-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-8A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD

45

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	815	NP	10.70	0.00	20.74	16.4	Yes	Yes	Yes	Yes		Weather: Clear 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	820	10.76	0.5	7.05	17.9	16,670	3.3	-108.9	11.2	Clear/colorless	*Low-flow groundwater sample:*
	822	10.86	1.0	6.99	18.4	17,590	2.5	-109.2	9.8		(A) peristaltic pump w/ ded tubing
	825	10.93	1.5	6.96	18.6	17,760	2.1	-109.5	8.6		B) ded bladder pump
	827	10.98	2.0	6.94	18.7	17,810	1.9	-109.9	8.3		C) non-ded bladder pump; or
	830	11.00	2.5	6.93	18.7	17,840	1.8	-110.2	8.0		*Standard groundwater sample:*
	832	11.01	3.0	6.93	18.8	17,860	1.8	-110.4	7.7		D) bailer due to limited column; or
	835	11.02	3.5	6.92	18.8	17,870	1.7	-110.8	7.5		E) recovery well cycling sample
↓	837	11.02	4.0	6.92	18.8	17,880	1.7	-110.9	7.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	840	OCD-8A	11.02	6.92	18.8	17,880	1.7	-110.9	7.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-8B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCD (46)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	905	NP	10.67	0.00	56.65	51.7	Yes	Yes	Yes	Yes		Weather: Clear - 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5				Gauge Only				E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-8B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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DO NOT ADDRESS AT ALL, 2H20

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-P4
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

47

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20					30.26	22.8						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-P4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-25
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (48)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	920	NP	15.96	0.00	28.18	23.2	Yes	Yes	Yes	Yes		Weather: Sunny, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Gauge	Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-25								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-8
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(49)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	925	NP	14.27	0.00	>14.95 (blockage)	NS	Yes	Issue	Yes	Yes		Weather: Sunny, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Gauge Only						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

- Navajo added PVC riser in 1H18
- blockage @ 14.95'

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
										Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-1R
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (50)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	930	NP	12.51	0.00	20.63	15.6	Yes	Yes*	Yes	Yes		Weather: Sunny, 70s
								↳ Bent casing lid (post.); well still functional; closure difficult				

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-1R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-15
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(51)

Initials: BJH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	934	NP	13.42	0.00	21.70	17.7	Yes	Yes	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-15								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank - EP-03

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-1R
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BZH

(52)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	902	NP	13.03	0.00	23.74	18.4	Yes	Yes	Yes	Yes		Weather: Sunny, 60s
10-7-20	935	NP	13.04	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	940	13.30	0.5	7.67	19.1	8890	3.0	-11.8	12.6	colorless, clear	*Low-flow groundwater sample:*
	943	13.30	1.0	7.50	18.8	7620	2.3	-4.7	10.2		(A) peristaltic pump w/ ded tubing
	945	13.30	1.5	7.41	18.5	7310	2.1	-1.8	8.9		B) ded bladder pump
	948	13.30	2.0	7.33	18.4	6990	1.8	3.6	7.8		C) non-ded bladder pump; or
	950	13.30	2.5	7.27	18.4	6910	1.7	7.9	7.2		*Standard groundwater sample:*
	953	13.30	3.0	7.24	18.4	6870	1.6	10.2	6.4		D) bailer due to limited column; or
	955	13.30	3.5	7.23	18.4	6850	1.6	12.6	6.1		E) recovery well cycling sample
	958	13.30	4.0	7.22	18.4	6840	1.5	14.9	5.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	1000	OCD-1R	13.30	7.22	18.4	6840	1.5	14.9	5.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-2A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (53)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	825	NP	13.26	0.00	27.56	22.3	Yes	Yes	Yes	Yes		Weather: Sunny, 60s
10-7-20	805	NP	13.28	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	810	13.46	0.5	7.62	16.4	5460	4.3	-109.5	9.2	colorless, clear	*Low-flow groundwater sample:*
	813	13.46	1.0	7.49	16.7	5500	3.0	-110.1	8.6		(A) peristaltic pump w/ ded tubing
	815	13.46	1.5	7.42	16.9	5530	2.7	-110.5	7.9		B) ded bladder pump
	818	13.46	2.0	7.33	17.2	5570	2.4	-114.3	7.3		C) non-ded bladder pump; or
	820	13.46	2.5	7.30	17.3	5610	2.2	-117.1	6.8		*Standard groundwater sample:*
	823	13.46	3.0	7.28	17.4	5630	2.1	-120.6	6.4		D) bailer due to limited column; or
	825	13.46	3.5	7.27	17.4	5640	2.0	-122.4	5.9		E) recovery well cycling sample
	828	13.46	4.0	7.26	17.5	5650	2.0	-124.9	5.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	830	OCD-2A	13.46	7.26	17.5	5650	2.0	-124.9	5.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-2B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BLH (54)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	828	NP	13.18	0.00	50.38	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Gauge	Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		OCD-2B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-3
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (55)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	832	NP	13.68	0.00	25.20	20.2	Yes	Yes	Yes	Yes		Weather: Sunny, 80s
↓	1615	NP	13.69	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1620	13.84	0.5	7.87	22.6	5420	2.4	13.6	11.9	colorless, clear	*Low-flow groundwater sample:*
	1623	13.84	1.0	7.74	21.0	4610	2.0	15.9	9.6		(A) peristaltic pump w/ ded tubing
	1625	13.84	1.5	7.66	20.6	4300	1.8	14.0	8.4		B) ded bladder pump
	1628	13.84	2.0	7.59	20.4	4190	1.6	6.3	7.9		C) non-ded bladder pump; or
	1630	13.84	2.5	7.57	20.2	4140	1.5	-1.2	7.2		*Standard groundwater sample:*
	1633	13.84	3.0	7.55	20.2	4080	1.5	-6.4	6.8		D) bailer due to limited column; or
	1635	13.84	3.5	7.53	20.1	4060	1.4	-10.8	6.5		E) recovery well cycling sample
↓	1638	13.84	4.0	7.52	20.1	4050	1.4	-12.4	6.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1640	OCD-3	13.84	7.52	20.1	4050	1.4	-12.4	6.1	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-4
Event: 21420
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (56)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
~~8-27-20 BRH~~	937	NP	13.22	0.00	25.41	20.1	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
10-6-20	1535	NP	13.22	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1540	13.36	0.5	7.54	23.3	15,220	2.9	-73.9	11.5	Colorless, clear	*Low-flow groundwater sample:*
	1543	13.36	1.0	7.44	21.7	15,130	2.1	-80.0	9.6		(A) peristaltic pump w/ ded tubing
	1545	13.36	1.5	7.39	21.2	15,070	1.7	-81.7	8.4		B) ded bladder pump
	1548	13.36	2.0	7.32	21.0	15,020	1.5	-83.1	7.9		C) non-ded bladder pump; or
	1550	13.36	2.5	7.29	20.9	14,990	1.4	-83.6	7.7		*Standard groundwater sample:*
	1553	13.36	3.0	7.27	20.8	14,980	1.4	-84.9	7.2		D) bailer due to limited column; or
	1555	13.36	3.5	7.26	20.8	14,960	1.3	-85.2	6.9		E) recovery well cycling sample
	1558	13.36	4.0	7.26	20.8	14,950	1.3	-85.7	6.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1600	OCD-4	13.36	7.26	20.8	14,950	1.3	-85.7	6.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-11A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (57)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	850	NP	10.93	0.00	22.01	17.0	Yes	Yes	Yes	Yes		Weather: Sunny, 60s
10-7-20	850	NP	10.95	0.00								

Well Purging Record

#Confirmed SC

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	855	11.14	0.5	7.23	18.5	22,900	3.5	3.1	7.3	Colorless, Clear	*Low-flow groundwater sample:*
	858	11.14	1.0	7.10	18.7	23,900	2.6	14.7	6.8		(A) peristaltic pump w/ ded tubing
	900	11.14	1.5	6.97	18.9	24,600	2.3	20.4	6.1		B) ded bladder pump
	903	11.14	2.0	6.90	19.1	24,800	2.1	24.5	5.9		C) non-ded bladder pump; or
	905	11.14	2.5	6.85	19.2	25,000	2.0	27.6	5.4		*Standard groundwater sample:*
	908	11.14	3.0	6.81	19.2	25,100	1.9	30.2	5.2		D) bailer due to limited column; or
	910	11.14	3.5	6.79	19.2	25,100	1.8	31.9	4.9		E) recovery well cycling sample
	913	11.14	4.0	6.78	19.3	25,200	1.8	33.0	4.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-7-20	915	mw-11A	11.14	6.78	19.3	25,200	1.8	33.0	4.7	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-11B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(58)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	853	NP	10.09	0.00	47.30	42.3	Yes	Yes	Yes	Yes		Weather: Clear, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-11B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: OCD-5
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(59)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	842	NP	11.44	0.00	25.41	20.6	Yes	Yes	Yes	Yes		Weather: Sunny, 90s
↓	1455	NP	11.44	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1500	11.46	0.5	7.44	22.3	15,510	2.8	-85.4	77.0	Clear w/ orange	*Low-flow groundwater sample:*
	1503	11.46	1.0	7.37	21.0	15,620	2.0	-82.9	49.6	algae particles	(A) peristaltic pump w/ ded tubing
	1505	11.46	1.5	7.32	20.7	15,680	1.7	-81.2	38.2		B) ded bladder pump
	1508	11.46	2.0	7.29	20.5	15,730	1.5	-79.8	31.9		C) non-ded bladder pump; or
	1510	11.46	2.5	7.27	20.4	15,760	1.4	-77.2	28.7		*Standard groundwater sample:*
	1513	11.46	3.0	7.26	20.4	15,780	1.4	-75.9	28.4		D) bailer due to limited column; or
	1515	11.46	3.5	7.26	20.4	15,790	1.3	-73.7	29.6		E) recovery well cycling sample
↓	1518	11.46	4.0	7.25	20.4	15,790	1.3	-72.6	28.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1520	OCD-5	11.46	7.25	20.4	15,790	1.3	-72.6	28.9	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-87
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (60)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1125	NP	10.26	0.00	20.39	15.1	Yes	Yes	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1130	10.42	0.5	6.92	21.3	15,010	2.8	-55.4	7.4	colorless, clear	*Low-flow groundwater sample:*
	1133	10.46	1.0	7.03	20.9	14,910	2.7	-59.0	6.9		(A) peristaltic pump w/ ded tubing
	1135	10.50	1.5	7.06	20.7	14,830	2.3	-61.9	6.2		B) ded bladder pump
	1138	10.53	2.0	7.09	20.6	14,760	2.0	-64.8	5.8		C) non-ded bladder pump; or
	1140	10.56	2.5	7.11	20.6	14,720	1.9	-67.3	5.1		*Standard groundwater sample:*
	1143	10.59	3.0	7.12	20.5	14,700	1.7	-70.2	4.7		D) bailer due to limited column; or
	1145	10.62	3.5	7.13	20.5	14,690	1.7	-71.9	4.4		E) recovery well cycling sample
↓	1148	10.65	4.0	7.13	20.4	14,670	1.6	-73.4	4.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1150	MW-87	10.65	7.13	20.4	14,670	1.6	-73.4	4.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18A
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (61)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1205	NP	11.68	0.00	22.58	17.9	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1210	11.89	0.5	7.42	22.2	18,680	2.6	-136.1	8.1	Colorless, clear	*Low-flow groundwater sample:*
↓	1213	11.96	1.0	7.37	21.2	18,730	2.0	-143.2	6.0	↓	(A) peristaltic pump w/ ded tubing
	1215	12.02	1.5	7.33	20.7	18,790	1.8	-149.7	4.9		B) ded bladder pump
	1218	12.06	2.0	7.29	20.6	18,810	1.6	-153.9	4.4		C) non-ded bladder pump; or
	1220	12.09	2.5	7.26	20.4	18,830	1.5	-156.0	3.7		*Standard groundwater sample:*
	1223	12.12	3.0	7.24	20.3	18,850	1.4	-159.2	3.2		D) bailer due to limited column; or
	1225	12.15	3.5	7.23	20.2	18,860	1.3	-161.1	2.8		E) recovery well cycling sample
↓	1228	12.18	4.0	7.22	20.2	18,870	1.3	-163.4	2.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1230	MW-18A	12.18	7.22	20.2	18,870	1.3	-163.4	2.4	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18B
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(62)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1240	NP	11.67	0.00	50.59	45.6	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge		Only			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-18B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18T
Event: 21420
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(63)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1245	NP	11.80	0.00	50.57	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-18T								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-70
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(64)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1255	NP	10.08	0.00	22.05	16.8	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1300	10.14	0.5	7.49	24.9	7660	2.3	-121.9	12.1	colorless, clear	*Low-flow groundwater sample:*
	1303	10.14	1.0	7.37	22.8	6980	1.7	-116.2	9.6		(A) peristaltic pump w/ ded tubing
	1305	10.14	1.5	7.31	22.0	6630	1.4	-112.5	9.0		B) ded bladder pump
	1308	10.14	2.0	7.22	21.6	6420	1.2	-109.3	8.4		C) non-ded bladder pump; or
	1310	10.14	2.5	7.19	21.4	6320	1.2	-107.0	8.2		*Standard groundwater sample:*
	1313	10.14	3.0	7.17	21.3	6290	1.1	-105.8	7.6		D) bailer due to limited column; or
	1315	10.14	3.5	7.16	21.3	6270	1.1	-103.7	7.3		E) recovery well cycling sample
	1318	10.14	4.0	7.16	21.2	6260	1.0	-102.4	7.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1320	MW-70	10.14	7.16	21.2	6260	1.0	-102.4	7.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ EB-EP-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-124
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(65)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1340	NP	10.78	0.00	22.00	17.0	Yes	Yes	Yes	Yes		Weather: Sunny, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1345	10.83	0.5	7.36	23.8	11,450	4.3	-108.7	21.4	colorless, clear	*Low-flow groundwater sample:*
↓	1348	10.83	1.0	7.29	22.6	11,570	2.2	-104.1	17.2	w/ slight orange	(A) peristaltic pump w/ ded tubing
	1350	10.83	1.5	7.25	21.9	11,640	1.8	-100.5	14.6	algae particles	B) ded bladder pump
	1353	10.83	2.0	7.22	21.3	11,700	1.6	-98.8	11.8	↓	C) non-ded bladder pump; or
	1355	10.83	2.5	7.21	21.2	11,730	1.5	-97.4	10.2		*Standard groundwater sample:*
	1358	10.83	3.0	7.19	21.2	11,760	1.5	-96.3	7.4		D) bailer due to limited column; or
	1400	10.83	3.5	7.20	21.2	11,780	1.4	-95.1	6.9		E) recovery well cycling sample
↓	1403	10.83	4.0	7.19	21.2	11,790	1.4	-94.2	6.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1405	MW-124	10.83	7.19	21.2	11,790	1.4	-94.2	6.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
	1420	EB-EP-02	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Driveway near bldg. A/C unit

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-52
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH / MDB (66)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1720	NP	21.54	0.00	34.67	29.5	Yes	Yes	Yes	Yes		Weather: Clear 60's
10-7-20	915	NP	21.58	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	920	21.61	0.5	6.96	21.2	3150	2.2	56.4	8.9	Clear / odorless	*Low-flow groundwater sample:*
	922	21.61	1.0	6.90	21.1	3140	2.0	57.8	8.0		(A) peristaltic pump w/ ded tubing
	925	21.61	1.5	6.87	20.9	3170	1.7	58.3	7.3		B) ded bladder pump
	927	21.61	2.0	6.86	20.8	3170	1.6	58.7	6.4		C) non-ded bladder pump; or
	930	21.61	2.5	6.86	20.8	3170	1.6	58.6	6.1		*Standard groundwater sample:*
	932	21.61	3.0	6.85	20.7	3180	1.6	58.5	5.5		D) bailer due to limited column; or
	935	21.61	3.5	6.85	20.7	3190	1.7	58.4	5.0		E) recovery well cycling sample
	937	21.61	4.0	6.84	20.7	3190	1.7	58.3	4.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	940	MW-52	21.61	6.84	20.7	3190	1.7	58.3	4.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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E. side of blue bldg.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-109
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH / RJM (67)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1725	NP	19.52	0.00	29.48	25.5	Yes	Yes	Yes	Yes		Weather: Sunny 70's
10-7-20	835	NP	19.59	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	840	19.70	0.5	7.26	24.8	2760	2.1	-336.4	13.2	Clear / colorless	*Low-flow groundwater sample:*
	842	19.76	1.0	7.24	24.6	2750	1.8	-344.6	10.4		(A) peristaltic pump w/ ded tubing
	845	19.81	1.5	7.27	24.4	2760	1.6	-348.5	9.1		B) ded bladder pump
	847	19.84	2.0	7.26	24.3	2740	1.5	-350.2	8.6		C) non-ded bladder pump; or
	850	19.87	2.5	7.25	24.3	2730	1.4	-352.8	8.3		*Standard groundwater sample:*
	852	19.89	3.0	7.24	24.1	2710	1.4	-355.3	7.2		D) bailer due to limited column; or
	855	19.90	3.5	7.24	24.0	2700	1.4	-354.4	6.7		E) recovery well cycling sample
	857	19.91	4.0	7.23	24.0	2690	1.3	-355.9	5.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	900	MW-109	19.91	7.23	24.0	2690	1.3	-355.9	5.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-110
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH / RJM (68)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1730	NP	16.12	0.00	29.74	24.7	Yes	Yes	Yes	Yes		Weather: Sunny 70's
10.7.20	935	NP	16.19	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.7.20	940	16.30	0.5	7.31	24.8	1890	2.0	-264.7	10.2	Clear / Colorless	*Low-flow groundwater sample:*
↓	942	16.36	1.0	7.28	24.6	1859	1.7	-265.9	9.8	↓	(A) peristaltic pump w/ ded tubing
	945	16.39	1.5	7.27	24.5	1845	1.5	-266.7	9.5		B) ded bladder pump
	947	16.40	2.0	7.25	24.2	1822	1.4	-268.5	9.1		C) non-ded bladder pump; or
	950	16.41	2.5	7.24	24.2	1797	1.3	-269.5	8.6		*Standard groundwater sample:*
	952	16.42	3.0	7.24	24.1	1763	1.2	-269.9	8.1		D) bailer due to limited column; or
	955	16.42	3.5	7.24	24.0	1755	1.2	-270.6	7.3		E) recovery well cycling sample
↓	957	16.42	4.0	7.23	24.1	1741	1.2	-271.7	6.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.7.20	1000	MW-110	16.42	7.23	24.1	1741	1.2	-271.7	6.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-13
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(69)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1015	NP	12.89	0.00	21.10	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge	Only			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-13								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-69
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BPH (70)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1020	NP	11.61	0.00	22.51	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Gauge Only

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-69								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-12
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (71)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1025	NP	10.03	0.00	17.93	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Gauge	Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-12								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-24
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located E. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH

(72)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1040	NP	12.04	0.00	23.51	NS	Yes	Yes	Issue	Yes		Weather: Sunny, 70s
									↳ Broken hasp hinge			

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5			Gauge Only					B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-24								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-14
Event: 2H20
Area of Concern: EP

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Located N. of river

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH (73)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1045	NM	>11.81	NA	>11.31	NS	Yes	Issue	Yes	Yes		Weather: Sunny, 70s

Well Purging Record

*Blockage @ 11.81' TOC.

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-14								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube; Sample via part if RW is active

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-12R
Event:
Area of Concern:

REST Above-grade

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
✓ Vault	Other 12-in	Other __

(RW recently off due to water rights issue)

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (74)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1621	NP	21.74	0.00	NM	Top of Pump yes	Yes	Yes	yes			Weather: Sunny 80's
						(if pump not operating)						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5		Gauge	Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								or (E) recovery well cycling sample, if recovery pump on.
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-12R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+ Dup-REST-01
+ EB-REST-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-113
Event: 2H26
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CdS (75)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1702	NP	21.49	0.00	37.80	33.8	Yes	Yes	Yes	Yes		Weather: Sunny, 60's
10/7/20	835	NP	21.51									

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	840	21.59	0.5	6.76	18.3	3750	2.7	-162.3	26.8	colorless / clear	*Low-flow groundwater sample:*
	843	21.61	1.0	6.71	19.6	3670	2.4	-160.7	20.1	odor	(A) peristaltic pump w/ ded tubing
	845	21.61	1.5	6.67	19.8	3640	2.1	-158.7	14.9		B) ded bladder pump
	847	21.61	2.0	6.65	20.0	3650	1.7	-156.5	11.6		C) non-ded bladder pump; or
	850	21.61	2.5	6.64	20.0	3640	1.7	-154.9	9.5		*Standard groundwater sample:*
	853	21.61	3.0	6.63	20.0	3640	1.6	-153.5	8.7		D) bailer due to limited column; or
	855	21.61	3.5	6.64	20.1	3640	1.6	-151.7	8.1		E) recovery well cycling sample
	857	21.61	4.0	6.64	20.1	3620	1.6	-150.2	7.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	900	MW-113	21.61	6.64	20.1	3620	1.6	-150.2	7.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	800	DUP-REST-01	21.61	6.64	20.1	3620	1.6	-150.2	7.7	Same	Same	
	920	EB-REST-01	NA							Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-8
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (76)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1225	NP	18.86	0.00	35.80	30.8	Yes	Yes	Yes	YES		Weather: Sunny 80's

Well Purging Record * started signaling product during Purge.

Date	Time	Depth to * Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1230	18.98	0.5	6.93	23.7	5064	3.9	-259.4	10.3	Colorless, clear	Low-flow groundwater sample:
	1233	19.00	1.0	6.93	22.9	5082	2.7	-279.9	9.4	" "	(A) peristaltic pump w/ ded tubing
	1235	19.01	1.5	6.92	22.4	5134	1.6	-287.6	8.7	" clear (sheen)	B) ded bladder pump
	1238	19.02	2.0	6.91	22.0	5156	1.3	-294.4	8.4	" " (purge-water)	C) non-ded bladder pump; or
	1240	19.02	2.5	6.90	21.8	5174	1.1	-301.6	8.1	" " "	Standard groundwater sample:
	1243	19.02	3.0	6.90	21.7	5193	0.9	-304.8	7.9	" " "	D) bailer due to limited column; or
	1245	19.02	3.5	6.89	21.7	5195	0.8	-307.4	7.9	" " "	E) recovery well cycling sample
	1248	19.02	4.0	6.89	21.6	5198	0.8	-308.5	7.8	" " "	F) irrigation well grab sample
	DTP at the end of purge					19.00	(0.02)				

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1250	KWB-8	19.02	6.89	21.6	5198	0.8	-308.5	7.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-22
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Above-grade Vault ✓	Other 12-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (77)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1640	23.46	24.34	0.88	NM	Sample port if RW active	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge		Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-22								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-20A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other 6-in	Other __

metal roof canopy
• RW-20A
- - - - - Vault
• RW-20B

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS

(78)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/16/20	1635	>20.65 → top of pump			NM *	Sample Part	Yes	Yes	Yes	Yes		Weather: Sunny 80's

* Likely well base @ 21.98' per Navajo

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5		Gauge Only						*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-20A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-20B
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other 6-in	Other __

metal roof canopy
RW-20A
Vault
RW-20B

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB

(79)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1630	20.51	20.70	0.19	NM	Sample Port	Yes	Yes	Yes	Yes		Weather: Sunny 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge		Only			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-20B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Bagged / labeled tube stored inside above-grade vault

Monitoring Well Purging and Sampling Record (Historical LNAPL)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-13R
Event: 2H20
Area of Concern: REST Above-grade

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Vault ✓	Other 12-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (80)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1616	20.02	20.13	0.11	NM	30.0	yes	yes	yes	yes		Weather: Sunny 80's
						or Sample	part, if	RW is active				

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								or (E) recovery well cycling sample if RW is active
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-13R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-14R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Above-grade Vault ✓	Other 12-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RD (81)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1610	21.78	21.97	0.19	NM	Sample Port	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0		Gauge	Only					D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-14R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-133
Event: 21420
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (82)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1604	19.40	19.62	0.22	37.64	27.9	YES	YES	YES	YES		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0	Not Sampled due to							(A) peristaltic pump w/ ded tubing
			1.5	LNAPL being ≥0.03							B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-133								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

4 Dup-REST-03
+ EB-REST-03
+ Trip Blank-REST-01

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-134
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (83)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1605	NP	19.73	0.00	32.95	28.4	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1610	19.76	0.5	7.11	25.5	6390	2.0	132.4	9.6	colorless/clear	*Low-flow groundwater sample:*
	1613	19.76	1.0	6.97	23.4	6370	1.3	136.2	6.8	↓	(A) peristaltic pump w/ ded tubing
	1615	19.76	1.5	6.92	22.8	6350	1.1	135.2	4.6		B) ded bladder pump
	1617	19.76	2.0	6.88	22.3	6320	1.0	129.9	3.7		C) non-ded bladder pump; or
	1620	19.76	2.5	6.86	22.2	6290	1.0	127.6	3.1		*Standard groundwater sample:*
	1623	19.76	3.0	6.84	22.1	6260	0.9	125.8	2.9		D) bailer due to limited column; or
	1625	19.76	3.5	6.83	22.1	6250	0.9	124.3	2.7		E) recovery well cycling sample
	1627	19.76	4.0	6.83	22.1	6250	0.9	123.5	2.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1630	MW-134	19.76	6.83	22.1	6250	0.9	123.5	2.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
	1200	DUP-REST-03								Same	Same	
↓	1650	EB-REST-03	NA	—	—	—	—	—	→	Same	Same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-4798
Event: 2H20
Area of Concern: REST

Irrigation well
Inside green, block bldg.
No purge; sample port (faucet)

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD

(84)

Well Inspection Information (Screen: 840-850)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1315	NM	NM	NM	NM	NM	NA	NA	NA	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Colorless, clear	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1315	RA-4798	NM	7.21	21.4	2396	3.8	-43.9	0.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-4196
Event: 2H20
Area of Concern: REST

Irrigation well
Inside green, block bldg.
No purge; sample port (faucet)

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information (Screen: 280-292)

Initials: BB (85)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1330	NM	NM	NM	NM	NM	NA	NA	NA	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5							Colorless, clear	*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ Sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1330	RA-4196	NM	7.19	23.7	2186	3.1	-39.8	0.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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DO NOT ADDRESS
Removed from Program by Navajo, 4-13-15

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-1227
Event: 2H20
Area of Concern: REST

Irrigation well
Removed from Program

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB

(86)

Well Inspection Information (Screen: 194-246)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
												Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		DO NOT ADDRESS						A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
	RA-1227									Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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DO NOT ADDRESS IN 2H20

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-3156
Event: 2H20
Area of Concern: REST

Irrigation well
No purge; sample port

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (87)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
		NM	NM	NM	NM	NA	NA	NA	NA	Yes		Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RA-3156								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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E. of MW-101; across street

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RA-313
Event: 2H20
Area of Concern: REST DO NOT ADDRESS IN 2H20

[Irrigation and water-supply purpose, per Navajo]

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information

(Screen: 904-1157)

Initials: BB (88)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
		NM	NM	NM	NM	NA	NA	NA	NA	Yes		Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		No purge; active water well w/ sample port (By Tank 465)						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								(F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RA-313								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Pecan Grove)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-7
Event: 21420
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

* Removed sock to gauge & sample. Reinstalled sock.

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (89)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1135	NP	17.75	0.00	34.83	30.6	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1340	17.75	0.5	6.98	25.2	2496	2.9	-149.6	4.9	Colorless/clear	Low-flow groundwater sample:
	1343	17.75	1.0	6.96	24.4	2431	2.6	-171.8	4.1	" (Strong HC odor)	(A) peristaltic pump w/ ded tubing
	1345	17.75	1.5	6.92	23.7	2396	2.4	-179.4	3.7	" "	B) ded bladder pump
	1348	17.75	2.0	6.91	23.5	2385	2.3	-184.3	3.1	" "	C) non-ded bladder pump; or
	1350	17.75	2.5	6.90	23.4	2379	2.1	-189.6	2.7	" "	Standard groundwater sample:
	1353	17.75	3.0	6.90	23.3	2375	2.0	-192.4	2.4	" "	D) bailer due to limited column; or
	1355	17.76	3.5	6.89	23.2	2372	2.0	-193.7	2.2	" "	E) recovery well cycling sample
	1358	17.76	4.0	6.89	23.2	2369	1.9	-194.3	2.2	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1200	KWB-7	17.76	6.89	23.2	2369	1.9	-194.3	2.2	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-135
Event: 2Q20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (90)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1715	NP	31.02	0.00	65.55	50.0	Yes	Yes	Yes	Yes		Weather: Sunny, 60's
10/7/20	1005	NP	31.03									

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	1010	31.04	0.5	7.18	21.4	7040	4.7	16.9	49.1	colorless / sl. cloudy	Low-flow groundwater sample:
↓	1013	31.04	1.0	6.97	19.5	7360	4.0	28.3	37.2	↓	A) peristaltic pump w/ ded tubing
	1015	31.04	1.5	6.83	19.3	7530	3.8	31.9	30.6	↓	(B) ded bladder pump
	1017	31.04	2.0	6.79	19.4	7570	3.7	33.8	25.3	colorless / clear	C) non-ded bladder pump; or
	1020	31.04	2.5	6.78	19.5	7570	3.7	37.4	22.1	↓	Standard groundwater sample:
	1023	31.04	3.0	6.75	19.6	7570	3.6	41.3	19.4	↓	D) bailer due to limited column; or
	1025	31.04	3.5	6.75	19.7	7550	3.6	44.1	18.1	↓	E) recovery well cycling sample
↓	1027	31.04	4.0	6.74	19.7	7400	3.6	46.1	17.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/7/20	1030	MW-135	31.04	6.74	19.7	7400	3.6	46.1	17.0	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-20
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (91)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1542	NP	18.33	0.00	26.66	21.9	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge		Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-20								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-3
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (92)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1549	NP	20.47	0.00	21.59	NS	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-3								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-4
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (93)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1556	NP	33.81	0.00	36.98	NS	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-2
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (94)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1559	NP	20.56	0.00	21.49	NS	Yes	Yes	Yes	Yes		Weather: Sunny 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-1
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BD (95)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1350	NP	18.74	0.00	21.88	19.6	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1355	18.74	0.5	6.99	22.5	4468	2.6	26.7	3.9	Colorless, clear	*Low-flow groundwater sample:*
	1358	18.74	1.0	6.93	21.1	4,580	1.9	30.8	3.1	" "	(A) peristaltic pump w/ ded tubing
	1400	18.74	1.5	6.85	20.9	4,595	1.9	33.6	2.7	" "	B) ded bladder pump
	1403	18.74	2.0	6.79	20.8	4,610	1.8	34.8	2.3	" "	C) non-ded bladder pump; or
	1405	18.74	2.5	6.76	20.7	4,613	1.7	35.1	2.1	" "	*Standard groundwater sample:*
	1408	18.74	3.0	6.75	20.7	4,620	1.7	35.4	2.0	" "	D) bailer due to limited column; or
	1410	18.74	3.5	6.75	20.7	4,623	1.7	35.7	1.9	" "	E) recovery well cycling sample
	1413	18.74	4.0	6.74	20.6	4,625	1.6	36.3	1.7	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1415	NP-1	18.74	6.74	20.6	4,625	1.6	36.3	1.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-6
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (96)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1526	NP	15.14	0.00	20.35	15.4	Yes	Yes	Yes	Yes		Weather: 80's Sunny

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-6								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-8
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (97)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1532	NP	16.59	0.00	23.30	18.3	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-8								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank-TMD-01

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-21
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GOS (98)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1520	NP	15.76	0.00	25.12	19.9	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1525	15.86	0.5	7.24	27.1	7060	2.1	123.8	10.9	colorless / clear	*Low-flow groundwater sample:*
	1527	15.89	1.0	7.05	24.7	7340	1.4	127.5	6.3		(A) peristaltic pump w/ ded tubing
	1530	15.90	1.5	6.99	23.9	7410	1.2	131.8	4.5		B) ded bladder pump
	1533	15.90	2.0	6.95	23.6	7440	1.2	130.6	3.9		C) non-ded bladder pump; or
	1535	15.91	2.5	6.93	23.7	7430	1.1	130.3	3.7		*Standard groundwater sample:*
	1537	15.91	3.0	6.92	23.6	7450	1.0	129.7	4.6		D) bailer due to limited column; or
	1540	15.91	3.5	6.91	23.4	7460	1.0	129.3	3.9		E) recovery well cycling sample
	1543	15.91	4.0	6.91	23.3	7460	1.0	128.9	3.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1545	MW-21	15.91	6.91	23.3	7460	1.0	128.9	3.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-9
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BS (99)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1538	NP	17.12	0.00	22.25	NS	yes	yes	yes	yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge		Only		C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-71
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (100)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1522	NP	17.41	0.00	21.67	16.9	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-71								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-68
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (101)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1516	NP	21.12	0.00	26.52	23.5	yes	yes	yes	yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-68								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-27
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: KBJ (102)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1505	NP	20.42	0.00	30.28	25.0	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-27								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-89
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (103)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1458	NP	13.08	0.00	20.28	15.2	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5			Gauge	Only				B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-89								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-16
Event: 2420
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB

(104)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1445	NP	10.39	0.00	21.24	16.2	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-16								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-26
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (105)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/23	1449	NP	14.00	0.00	27.58	22.6	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-26								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Pecan grove access from 82 gate)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-11A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB

106

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1000	NA	17.56	0.00	42.27	37.0	Yes	Yes	Yes	Yes		Weather: Sunny 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1005	17.62	0.5	6.85	20.9	2426	1.9	-69.3	17.6	Clear colorless	*Low-flow groundwater sample:*
	1008	17.62	1.0	6.81	19.9	3765	1.7	-53.2	20.9	" "	(A) peristaltic pump w/ ded tubing
	1010	17.62	1.5	6.80	19.8	3,854	1.5	-40.8	17.4	" "	B) ded bladder pump
	1013	17.62	2.0	6.78	19.6	3,840	1.3	-13.2	17.1	" "	C) non-ded bladder pump; or
	1015	17.62	2.5	6.78	19.5	3,843	1.2	+0.8	17.0	" "	*Standard groundwater sample:*
	1018	17.62	3.0	6.77	19.4	3860	1.2	13.7	18.1	" "	D) bailer due to limited column; or
	1020	17.62	3.5	6.77	19.4	3,858	1.1	14.3	17.8	" "	E) recovery well cycling sample
	1023	17.62	4.0	6.77	19.4	3,861	1.0	14.5	17.6	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1025	KWB-11A	17.62	6.77	19.4	3861	1.0	14.5	17.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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(Pecan grove access from 82 gate)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-11B
Event: 21120
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (107)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1045	NP	18.31	0.00	72.45	62.2	Yes	Yes	Yes	Yes	*	Weather: Sunny 70's

Well Purging Record

* (Severely cracked pad same as last events, needs new pad)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1050	18.56	0.5	7.09	20.5	3182	2.6	107.8	10.6	Clear, colorless	*Low-flow groundwater sample:*
	1053	18.68	1.0	6.98	20.3	3186	1.6	109.3	9.2	" "	(A) peristaltic pump w/ ded tubing
	1055	18.77	1.5	6.98	20.1	3098	1.3	112.8	7.0	" "	B) ded bladder pump
	1058	18.84	2.0	6.95	20.1	3096	1.2	114.1	5.7	" "	C) non-ded bladder pump; or
	1100	18.87	2.5	6.95	20.1	3128	1.1	117.2	5.2	" "	*Standard groundwater sample:*
	1103	18.90	3.0	6.94	20.1	3137	1.1	119.8	5.0	" "	D) bailer due to limited column; or
	1105	18.91	3.5	6.93	20.1	3141	1.1	120.2	4.8	" "	E) recovery well cycling sample
	1108	18.91	4.0	6.93	20.1	3143	1.1	120.8	4.7	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1110	KWB-11B	18.91	6.93	20.1	3143	1.1	120.8	4.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Removed from Program by Navajo, 4-13-15

Monitoring Well Purging and Sampling Record

(Former Jack Joy 575-365-6042)

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-3AR
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB

(108)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
												Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		DO NOT ADDRESS						A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
										Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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ATV - S. Ro Field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-115
Event: 21420
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (109)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1655	NP	17.89	0.00	27.50	19.8	Yes	Yes	Yes	Yes		Weather: Sunny 70's
10/7/20	850	NP	17.91	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	855	17.93	0.5	6.89	20.2	5093	4.7	48.4	3.2	Colorless, Clear	*Low-flow groundwater sample:*
	858	17.94	1.0	6.85	19.8	5080	3.9	56.8	2.2	" "	(A) peristaltic pump w/ ded tubing
	900	17.95	1.5	6.83	19.7	5072	3.2	60.2	2.0	" "	B) ded bladder pump
	903	17.95	2.0	6.82	19.6	5068	2.9	63.8	1.8	" "	C) non-ded bladder pump; or
	905	17.95	2.5	6.81	19.6	5061	2.8	65.1	1.5	" "	*Standard groundwater sample:*
	908	17.95	3.0	6.81	19.5	5056	2.7	66.7	1.3	" "	D) bailer due to limited column; or
	910	17.95	3.5	6.80	19.5	5051	2.7	67.2	1.2	" "	E) recovery well cycling sample
	913	17.95	4.0	6.80	19.5	5048	2.6	67.5	1.1	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	915	MW-115	17.95	6.80	19.5	5048	2.6	67.5	1.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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ATV - S. RO Field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-114
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(110)

Initials: BB

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1659	NP	17.38	0.00	38.25	30.5	Yes	Yes	Yes	Yes		Weather: Sunny 70's
10/7/20	935	NP	17.39	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	940	17.42	0.5	6.83	22.0	3,740	3.7	79.2	5.2	Colorless, clear	*Low-flow groundwater sample:*
	943	17.42	1.0	6.74	21.7	3,610	2.9	84.7	3.8	" "	(A) peristaltic pump w/ ded tubing
	945	17.42	1.5	6.71	21.6	3,542	2.6	91.2	2.9	" "	B) ded bladder pump
	948	17.42	2.0	6.69	21.6	3,496	2.2	93.7	2.5	" "	C) non-ded bladder pump; or
	950	17.42	2.5	6.68	21.5	3,472	2.0	94.8	2.2	" "	*Standard groundwater sample:*
	953	17.42	3.0	6.68	21.5	3,450	1.9	95.1	2.0	" "	D) bailer due to limited column; or
	955	17.42	3.5	6.67	21.5	3,436	1.9	95.6	1.9	" "	E) recovery well cycling sample
↓	958	17.42	4.0	6.67	21.4	3,428	1.9	96.3	1.7	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/7/20	1000	MW-114	17.42	6.67	21.4	3,428	1.9	96.3	1.7	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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ATV - S. RO Field (mesquite !!)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-125
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BB (111)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1708	NP	20.32	0.00	28.31	23.5	yes	yes	yes	yes		Weather: Sunny 70's
10/7/20	1025	NP	20.33	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	1030	20.36	0.5	6.92	22.7	4534	3.5	47.8	9.7	Colorless, Clear	*Low-flow groundwater sample:*
	1033	20.38	1.0	6.85	22.1	4476	3.1	54.2	7.8	" "	(A) peristaltic pump w/ ded tubing
	1035	20.39	1.5	6.83	21.6	4410	2.5	56.3	6.7	" "	B) ded bladder pump
	1038	20.39	2.0	6.82	21.2	4391	2.3	56.9	6.3	" "	C) non-ded bladder pump; or
	1040	20.39	2.5	6.82	20.0	4384	2.2	58.7	5.9	" "	*Standard groundwater sample:*
	1043	20.39	3.0	6.81	19.8	4379	2.2	60.0	5.7	" "	D) bailer due to limited column; or
	1045	20.39	3.5	6.80	19.7	4375	2.2	60.8	5.2	" "	E) recovery well cycling sample
	1048	20.39	4.0	6.80	19.7	4371	2.1	61.2	4.8	" "	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/7/20	1050	MW-125	20.39	6.80	19.7	4371	2.1	61.2	4.8	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-117
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OJD (112)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1355	NP	16.17	0.00	27.22	19.7	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1400	16.17	0.5	6.89	21.9	2840	3.3	29.5	19.6	Colorless/Clear	*Low-flow groundwater sample:*
	1403	16.17	1.0	6.87	21.6	2870	3.0	34.1	15.3		(A) peristaltic pump w/ ded tubing
	1405	16.17	1.5	6.84	21.4	2910	2.7	37.8	13.4		B) ded bladder pump
	1408	16.17	2.0	6.81	21.4	2930	2.6	40.5	12.5		C) non-ded bladder pump; or
	1410	16.17	2.5	6.79	21.3	2960	2.6	44.2	11.3		*Standard groundwater sample:*
	1413	16.17	3.0	6.75	21.3	2980	2.5	49.9	10.8		D) bailer due to limited column; or
	1415	16.17	3.5	6.73	21.2	2990	2.5	52.3	9.5		E) recovery well cycling sample
	1418	16.17	4.0	6.71	21.2	3010	2.5	55.7	8.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1420	mw-117	16.17	6.71	21.2	3010	2.5	55.7	8.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-118
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(113)

Initials: OSD

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1310	NP	19.35	0.00	28.29	21.0	Yes	Yes	Yes	Yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1315	19.42	0.5	7.03	21.3	2750	5.2	43.5	33.6	Colorless/Cloudy	*Low-flow groundwater sample:*
	1318	19.54	1.0	6.98	21.1	2780	4.8	38.4	27.1		(A) peristaltic pump w/ ded tubing
	1320	19.58	1.5	6.95	20.7	2820	4.5	42.5	24.5		B) ded bladder pump
	1323	19.61	2.0	6.93	20.7	2850	4.3	46.7	19.9		C) non-ded bladder pump; or
	1325	19.62	2.5	6.90	20.6	2880	4.1	49.3	14.5		*Standard groundwater sample:*
	1328	19.62	3.0	6.88	20.5	2910	3.9	53.1	12.6		D) bailer due to limited column; or
	1330	19.62	3.5	6.87	20.5	2930	3.9	56.6	10.3	Colorless/Clear	E) recovery well cycling sample
	1333	19.62	4.0	6.87	20.4	2940	3.8	58.3	9.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1335	MW-118	19.62	6.87	20.4	2940	3.8	58.3	9.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-9
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GMS (114)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	842	NP	18.40	0.00	25.65	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 50's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-119
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GMJ (115)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	855	NP	17.21	0.00	28.11	20.8	Yes	Yes	Yes	Yes		Weather: Sunny, 50's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	900	17.25	0.5	7.19	20.1	6160	3.0	135.6	29.5	colorless / clear	*Low-flow groundwater sample:*
	903	17.25	1.0	7.01	20.1	6120	2.1	84.7	23.5	↓	(A) peristaltic pump w/ ded tubing
	905	17.25	1.5	6.91	20.1	6030	2.0	79.2	20.2		B) ded bladder pump
	907	17.25	2.0	6.88	20.2	6070	1.9	72.1	19.6		C) non-ded bladder pump; or
	910	17.25	2.5	6.83	20.4	6000	1.8	67.4	17.0		*Standard groundwater sample:*
	913	17.25	3.0	6.82	20.4	5990	1.8	64.6	15.5		D) bailer due to limited column; or
	915	17.25	3.5	6.81	20.4	5960	1.8	62.1	14.9		E) recovery well cycling sample
↓	917	17.25	4.0	6.81	20.4	5950	1.8	59.8	14.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	920	MW-119	17.25	6.81	20.4	5950	1.8	59.8	14.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NP-5
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (116)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1231	NP	16.91	0.00	25.09	20.0	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NP-5								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-136
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (117)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1155	NP	18.40	0.00	27.90	23.0	Yes	Yes	Yes	Yes		Weather: Sunny, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1200	18.43	0.5	7.12	24.7	5330	2.4	103.8	64.1	Colorless / Sl. Cloudy	*Low-flow groundwater sample:*
↓	1203	18.43	1.0	6.92	23.1	5370	1.9	105.5	39.2	↓	(A) peristaltic pump w/ ded tubing
	1205	18.44	1.5	6.84	22.4	5380	1.6	108.8	23.1	Colorless / Clear	B) ded bladder pump
	1207	18.44	2.0	6.79	22.1	5390	1.6	106.7	19.1		C) non-ded bladder pump; or
	1210	18.44	2.5	6.77	22.1	5370	1.7	108.5	18.5	↓	*Standard groundwater sample:*
	1213	18.44	3.0	6.75	22.0	5380	1.7	109.9	16.9		D) bailer due to limited column; or
	1215	18.44	3.5	6.75	22.0	5380	1.6	110.2	15.1		E) recovery well cycling sample
↓	1217	18.44	4.0	6.75	22.0	5380	1.6	110.6	13.9	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1220	MW-136	18.44	6.75	22.0	5380	1.6	110.6	13.9	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-126A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (118)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	945	NP	21.41	0.00	37.51	29.5	Yes	Yes	Yes	Yes		Weather: Sunny, 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	950	21.41	0.5	7.01	22.5	4780	3.8	-19.8	30.3	Clear/Colorless	*Low-flow groundwater sample:*
	953	21.41	1.0	6.77	21.5	4760	2.1	-40.7	25.1		(A) peristaltic pump w/ ded tubing
	955	21.41	1.5	6.70	21.2	4700	1.7	-50.9	23.0		B) ded bladder pump
	957	21.41	2.0	6.67	21.2	4670	1.5	-60.1	13.2		C) non-ded bladder pump; or
	1000	21.41	2.5	6.65	21.2	4640	1.4	-69.3	10.6		*Standard groundwater sample:*
	1003	21.41	3.0	6.64	21.2	4620	1.3	-72.1	8.1		D) bailer due to limited column; or
	1005	21.41	3.5	6.63	21.3	4580	1.3	-75.1	7.7		E) recovery well cycling sample
	1007	21.41	4.0	6.63	21.4	4570	1.3	-77.4	6.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1010	MW-126A	21.41	6.63	21.4	4570	1.3	-77.4	6.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-126B
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (119)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1025	ND	21.29	0.00	51.43	48.4	Yes	Yes	Yes	Yes		Weather: Sunny, 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1030	21.35	0.5	6.88	23.1	5170	3.5	33.8	7.7	Colorless / clear	*Low-flow groundwater sample:*
	1033	21.36	1.0	6.77	22.3	5270	2.2	55.7	5.2		(A) peristaltic pump w/ ded tubing
	1035	21.36	1.5	6.73	22.0	5280	1.9	66.4	4.5		B) ded bladder pump
	1037	21.36	2.0	6.71	21.7	5330	1.8	68.6	4.0		C) non-ded bladder pump; or
	1040	21.36	2.5	6.69	21.7	5320	1.9	75.1	3.6		*Standard groundwater sample:*
	1043	21.36	3.0	6.68	21.6	5320	1.9	78.6	3.5		D) bailer due to limited column; or
	1045	21.36	3.5	6.67	21.4	5350	1.8	80.9	3.2		E) recovery well cycling sample
	1047	21.36	4.0	6.67	21.2	5360	1.8	82.5	3.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1050	MW-126B	21.36	6.67	21.2	5360	1.8	82.5	3.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-127
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GBS (120)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1117	22.96	24.88	1.92	53.21	38.4	Yes	Yes	Yes	Yes		Weather: Sunny, 30's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED		due to well having				C) non-ded bladder pump; or
			2.5			LNAPL	Thickness ≥ 0.03'				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-127								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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(Recompleted at-grade prior to 1H20)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-129
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (121)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1125	23.66	24.75	1.09	50.78	NA (5' off base if sampled)	Yes	Yes	Yes	Yes		Weather: Sunny, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge		Only			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-129								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#18A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GBS (122)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1351	NP	17.60	0.00	17.78	16.7	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#18A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-1A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CWS (123)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1300	NP	18.49	0.00	33.50	25.8	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1305	18.50	0.5	6.99	25.9	5640	2.5	114.9	21.2	Colorless / clear	*Low-flow groundwater sample:*
	1307	18.50	1.0	6.77	23.0	5760	1.5	121.9	17.2		(A) peristaltic pump w/ ded tubing
	1310	18.50	1.5	6.73	22.8	5780	1.4	124.3	14.4		B) ded bladder pump
	1313	18.50	2.0	6.71	22.4	5770	1.2	127.5	9.5		C) non-ded bladder pump; or
	1315	18.50	2.5	6.70	22.2	5780	1.1	129.2	7.2		*Standard groundwater sample:*
	1317	18.50	3.0	6.69	22.0	5790	1.1	131.6	6.1		D) bailer due to limited column; or
	1320	18.50	3.5	6.69	22.1	5770	1.0	129.2	5.6		E) recovery well cycling sample
	1323	18.50	4.0	6.70	22.1	5770	1.0	128.4	4.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1325	KWB-1A	18.50	6.70	22.1	5770	1.0	128.4	4.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-1B
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AMS

(124)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1337	NP	20.14	0.00	33.92	NS	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-1B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB - 1C
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GOS (125)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1340	NP	20.75	0.00	52.71	42.7	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-1C								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Located ~25' N. of original KWB-10 pad)

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-10R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GOS (126)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1346	18.80	21.79	2.99	29.46	22.0	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5		Not sampled due to well having LNAPL thickness ≥ 0.03'						*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-10R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-131
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (127)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/2	1121	25.95	27.58	1.63	53.35	38.1	Yes	Yes	Yes	Yes		Weather: Sunny, 70's.

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED DUE TO well						C) non-ded bladder pump; or
			2.5		having LNAPL thickness						*Standard groundwater sample:*
			3.0			≥ 0.03'					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-131								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-5
Event: 21120
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD (128)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1235	25.97	28.09	2.12	37.68	30.7	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5		Not Sampled Due to						(B) ded bladder pump
			2.0		LNAPL. 20.03						C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-5								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-111
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSO (129)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1225	27.39	27.64	0.25	40.83	35.8	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5			NOT	SAMPLED DUE		TO		(B) ded bladder pump
			2.0			HAVING	LNAPL	THICKNESS			C) non-ded bladder pump; or
			2.5				>0.03				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-111								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-6
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GPS (130)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1436	23.98	26.61	2.63	36.44	27.4	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			NOT SAMPLED due to well					C) non-ded bladder pump; or
			2.5			having LNAPL thickness					*Standard groundwater sample:*
			3.0				≥ 0.03				D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-6								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-112
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (131)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1449	24.23	25.29	2.06	37.54	32.5	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5		NOT SAMPLED due to well						*Standard groundwater sample:*
			3.0		having LNAPL thickness						D) bailer due to limited column; or
			3.5				≥0.03'				E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-112								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-132
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GPS (132)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1430	21.32	23.80	2.48	42.66	NA	Yes	Yes	Yes	Yes		Weather: Sunny, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NOT SAMPLED DUE to well						C) non-ded bladder pump; or
			2.5		having LNAPL thickness						*Standard groundwater sample:*
			3.0		≥ 0.03'						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-132								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Located inside yellow vault; furthest South

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-57
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD

(133)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1105	NP	21.73	0.00	34.32	32.8	Yes	Yes	Yes	Yes		Weather: Clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1110	21.84	0.5	6.75	21.3	2990	4.3	80.4	12.1	Colorless/Clear	*Low-flow groundwater sample:*
	1113	21.87	1.0	6.71	21.1	3070	4.1	87.3	11.5		A) peristaltic pump w/ ded tubing
	1115	21.96	1.5	6.66	21.1	3120	3.8	90.6	10.6		(B) ded bladder pump
	1117	21.92	2.0	6.63	20.7	3150	3.6	94.8	9.8		C) non-ded bladder pump; or
	1120	21.95	2.5	6.59	20.6	3180	3.5	97.7	9.2		*Standard groundwater sample:*
	1122	21.98	3.0	6.54	20.5	3190	3.4	102.5	8.7		D) bailer due to limited column; or
	1125	21.99	3.5	6.51	20.5	3210	3.4	105.7	8.3		E) recovery well cycling sample
	1128	22.02	4.0	6.48	20.5	3220	3.3	107.3	7.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments Lab: Pace National, Mt. Juliet, TN
10-6-20	1130	MW-57	22.02	6.48	20.5	3220	3.3	107.3	7.8	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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~32" corrugated stickup

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#11-O
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC __
Upright ✓	4-in __	SS __
Vault __	Other 32-in	Other ✓ corrugated pipe

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GDS (134)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1424	Dry	Dry	Dry	22.20	NA	Yes	Yes	Yes	Yes		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample
											(Historically not sampled)

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#11-O								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(until further notice, do not address in any way, per Navajo 4-26-16)

Monitoring Well Purging and Sampling Record

(Farmer - Jack Jay, 575-365-6042)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-9
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(135)

Initials: GDS

Well Inspection Information

(Historically - well casing obstructed @ 15.11')

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1426	NM	NM	NM	NM	NA	—	—	—	—		Weather: Sunny, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5		DO NOT ADDRESS						B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-12A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(136)

Initials: O SD

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	905	NP	23.11	0.00	25.03	24.9	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	910	23.25	0.5	6.48	19.5	2260	4.1	69.6	14.5	Colorless/Clear	*Low-flow groundwater sample:*
	913	23.31	1.0	6.43	19.3	2280	3.9	67.3	12.6		(A) peristaltic pump w/ ded tubing
	915	23.35	1.5	6.42	19.3	2320	3.7	65.1	11.5		B) ded bladder pump
	918	23.39	2.0	6.40	19.2	2370	3.5	63.2	10.8		C) non-ded bladder pump; or
	920	23.42	2.5	6.39	19.2	2410	3.5	60.4	10.2		*Standard groundwater sample:*
	923	23.45	3.0	6.37	19.1	2430	3.4	57.1	9.8		D) bailer due to limited column; or
	925	23.47	3.5	6.35	19.1	2450	3.4	54.5	9.1		E) recovery well cycling sample
	928	23.48	4.0	6.34	19.1	2460	3.4	51.3	8.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	930	KWB-12A	23.48	6.34	19.1	2460	3.4	51.3	8.3	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ DUP-REST-05
+ EB-REST-05
+ Trip Blank-REST-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KwB-12B
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD

(137)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	950	NP	23.07	0.00	39.39	35.2	Yes	Yes	Yes	Yes		Weather: Clear 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	955	23.15	0.5	6.64	20.1	2930	4.6	89.6	8.5	Colorless/Clear	*Low-flow groundwater sample:*
	958	23.15	1.0	6.61	20.1	2950	4.4	93.4	8.1		A) peristaltic pump w/ ded tubing
	1000	23.15	1.5	6.57	19.8	2960	4.4	96.7	7.8		(B) ded bladder pump
	1003	23.15	2.0	6.51	19.8	2970	4.3	99.5	7.3		C) non-ded bladder pump; or
	1005	23.15	2.5	6.48	19.7	2990	4.3	103.4	6.7		*Standard groundwater sample:*
	1008	23.15	3.0	6.45	19.5	3010	4.2	107.5	6.3		D) bailer due to limited column; or
	1010	23.15	3.5	6.43	19.4	3020	4.2	110.6	5.5		E) recovery well cycling sample
	1013	23.15	4.0	6.39	19.4	3020	4.1	112.1	5.1		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1015	KwB-12B	23.15	6.39	19.4	3020	4.1	112.1	5.1	Per COC	Per COC	
	1200	DUP-REST-05	23.15	6.39	19.4	3020	4.1	112.1	5.1	Same	Same	
	1035	EB-REST-05	NA							Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-2R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSD (138)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1150	25.10	25.29	0.19	39.39	32.4	Issue	Issue	Issue	Issue	*	Weather: clear 80s

* At Grade completion damaged; needs replacing; pig well remains functional

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5			NOT	SAMPLED				B) ded bladder pump
			2.0			DUE TO	LNAPL	≥ 0.03			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-2R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-58
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OSO (139)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1210	23.76	24.71	0.95	33.06	25.6	Yes	Yes	Yes	Yes		Weather: Clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Not	SAMPLED Due to				C) non-ded bladder pump; or
			2.5			Well	having LNAPL				*Standard groundwater sample:*
			3.0			Thickness ≥ 0.03					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-58								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: KWB-13
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: GGS (140)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1412	NP	28.00	0.00	33.10	30.1	Yes	Yes	Yes	Yes	#	Weather: Sunny, 80's
										# cracked pad		

Top of pump @ 27.40'

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								(B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		KWB-13								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Sign-in & permit From South Crude Control Room prior to entry

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-103
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (141)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1147	NP	18.30	0.00	25.22	22.2	Yes	Yes	Yes	Yes		Weather: clear, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-103								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Sign-in & Permit from South Crude Control Room prior to entry

Monitoring Well Purging and Sampling Record

+ Dup-Rest-02
+ EB-Rest-02

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-104
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

142

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1145	NP	14.31	0.00	21.97	19.0	Yes	Yes	Yes	Yes		Weather: Clear, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1150	14.44	0.5	6.74	28.8	1803	1.8	-318.3	12.3	colorless; clear	*Low-flow groundwater sample:*
	1152	14.50	1.0	6.72	28.7	1761	1.8	-323.3	8.4	↓	(A) peristaltic pump w/ ded tubing
	1155	14.55	1.5	6.73	28.3	1747	1.8	-325.1	7.9		B) ded bladder pump
	1157	14.59	2.0	6.74	28.4	1729	1.8	-327.5	6.1		C) non-ded bladder pump; or
	1200	14.62	2.5	6.75	28.4	1717	1.8	-329.7	4.9		*Standard groundwater sample:*
	1202	14.65	3.0	6.77	28.3	1696	1.9	-332.4	4.6		D) bailer due to limited column; or
	1205	14.68	3.5	6.77	28.2	1690	1.9	-333.3	4.2		E) recovery well cycling sample
↓	1207	14.71	4.0	6.77	28.2	1688	1.9	-333.9	4.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1210	MW-104	14.71	6.77	28.2	1688	1.9	-333.9	4.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
	1100	Dup-Rest-02	14.71	6.77	28.2	1688	1.9	-333.9	4.1	same	same	
↓	1220	EB-Rest-02	NA	—	—	—	—	—	→	same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube; stretch to outside of berm

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-64
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(143)

Well Inspection Information

(Removed sock prior to sampling; replaced following sampling)

Initials: SCM

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1240	NP	21.67	0.00	34.08	26.6	Yes	Yes	Yes	Yes		Weather: clear, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1245	21.87	0.5	6.74	35.0	2280	4.7	-311.7	23.1	colorless; clear	*Low-flow groundwater sample:*
	1247	21.96	1.0	6.72	34.9	2290	4.6	-313.1	23.0		(A) peristaltic pump w/ ded tubing
	1250	22.03	1.5	6.71	34.8	2300	4.6	-315.5	22.7		B) ded bladder pump
	1252	22.07	2.0	6.71	34.8	2310	4.2	-317.1	21.4		C) non-ded bladder pump; or
	1255	22.08	2.5	6.70	34.7	2310	3.9	-318.6	20.9		*Standard groundwater sample:*
	1257	22.08	3.0	6.70	34.7	2310	3.7	-319.5	20.9		D) bailer due to limited column; or
	1300	22.08	3.5	6.69	34.6	2320	3.6	-321.5	20.7		E) recovery well cycling sample
↓	1302	22.08	4.0	6.68	34.6	2320	3.6	-322.3	20.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1305	MW-64	22.08	6.68	34.6	2320	3.6	-322.3	20.5	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Bagged tube; Located in front of Navajo Storage shed.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-65
Event: 2H20
Area of Concern: BEST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Oil-Saturated sock could be replaced w/ new sock w) slightly shorter cord -SCH 10/6/20

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

144

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1330	19.12	19.62	0.50	28.78	23.8	Yes	Yes	Yes	Yes		Weather: Clear, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		NO SAMPLE;			LNAPL PRESENT			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0					≥ 0.03			D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-65								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Gauge to top of guide-pipe

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-5R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright __	4-in __	SS __
Above-grade Vault ✓	Other ✓	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (145)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1340	21.04	21.33	0.29	NM	24.0	Yes	Yes	Yes	Yes		Weather: Clear, 80s
					(pump in well; reported total depth = 35.30 Ft-TOC)							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								(E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-5R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tubes; do not dedicate, per historical observations.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-102
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG

(146)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1345	NP	17.00	0.00	26.45	21.3	Yes	Yes	Yes	Yes		Weather: Clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1350	17.03	0.5	6.84	29.8	2200	2.8	-286.2	16.3	colorless / clear	Low-flow groundwater sample:
	1352	17.03	1.0	6.82	29.4	2220	2.9	-289.7	15.4		(A) peristaltic pump w/ ded tubing
	1355	17.03	1.5	6.79	29.3	2230	3.0	-291.4	12.1		B) ded bladder pump
	1357	17.03	2.0	6.77	29.1	2230	3.1	-293.9	11.4		C) non-ded bladder pump; or
	1400	17.03	2.5	6.75	28.9	2240	3.1	-295.5	9.7		Standard groundwater sample:
	1402	17.03	3.0	6.74	28.8	2240	3.1	-297.3	8.9		D) bailer due to limited column; or
	1405	17.03	3.5	6.72	28.6	2240	3.1	-297.3	8.5		E) recovery well cycling sample
	1407	17.03	4.0	6.72	28.5	2240	3.1	-297.2	8.4		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1410	MW-102	17.03	6.72	28.5	2240	3.1	-297.2	8.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Bagged tube.

Monitoring Well Purging and Sampling Record

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: RW-4
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other ✓	Other __

Recovery Well Dog house
[Bracket is broken; prop open w/ pry bar

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (147)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1425	NP	15.58	0.00	36.62	31.6	YES	YES	YES	YES		Weather: Clear, 90s

Well Purging Record

* Gauge/Sample through labeled guide-pipe.
* Drawdown not measured (narrow diam guide-pipe)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
		NM *	0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge Only					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube.

Monitoring Well Purging and Sampling Record

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: RW-6
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other ✓	Other __

Recovery well Doghouse

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (148)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1420	17.51	21.25	3.74	34.90	30.0	Yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

* Gauge/Sample through labeled guide-pipe
* Drawdown not measured (narrow diam. guide-pipe)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
		NM *	0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge	Only				D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-6								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Position marked on adjacent fence; well is ~4' N. of chainlink fence; possibly covered by gravel/silt.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-99
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

(Sock in well)
LNAPL background confirmed w/ Navajo Rep (Domingo)
Initials: SCq

Hydrologic Monitoring
for TRC
Houston, Texas

149

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1510	20.46	21.52	1.06	27.80	22.8	Yes	Yes	Yes	Yes		Weather: Clear, 90s
~~10/7/20~~	SCq											

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
~~10/7/20~~ SCq			0.5								*Low-flow groundwater sample:*
			1.0							if sampled;	(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0	NOT SAMPLED; LNAPL PRESENT,					≥ 0.03		C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
~~10/7/20~~ SCq		MW-99								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Middle of gravel road; location marked on adjacent chain-link fence.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-66
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (150)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1517	NP	19.95	0.00	29.80	24.6	Yes	Yes	Yes	Yes		Weather: Clear, 90s
10/7/20	900	NP	20.00									Clear, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	905	20.15	0.5	6.58	22.3	1472	3.4	-194.0	9.6	colorless; clear	*Low-flow groundwater sample:*
	907	20.22	1.0	6.59	22.3	1487	2.3	-198.3	9.1		(A) peristaltic pump w/ ded tubing
	910	20.23	1.5	6.60	22.3	1495	2.2	-200.8	8.7		B) ded bladder pump
	912	20.23	2.0	6.60	22.4	1502	2.0	-204.2	8.4		C) non-ded bladder pump; or
	915	20.23	2.5	6.60	22.4	1513	2.0	-207.4	8.1		*Standard groundwater sample:*
	917	20.23	3.0	6.60	22.4	1521	2.0	-211.0	7.8		D) bailer due to limited column; or
	920	20.23	3.5	6.60	22.4	1525	2.0	-212.4	7.8		E) recovery well cycling sample
	922	20.23	4.0	6.60	22.4	1529	2.0	-214.7	7.7		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	925	MW-66	20.23	6.60	22.4	1529	2.0	-214.7	7.7	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-28
Event: 2Q20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Formerly: Extended vertically through gravel berm
Converted to upright completion (in area of former berm, cut out to ground surface, pre 1Q20.

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCU / OJD (151)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1525	NP	21.03	0.00	27.82	23.8	Yes	Yes	Yes	Yes		Weather: Clear, 90s
10/7/20	1045	NP	21.04	0.00								Clear, 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	1050	21.11	0.5	7.13	22.1	3290	1.8	-175.6	21.5	colorless/clear	*Low-flow groundwater sample:*
	1053	21.16	1.0	7.16	22.6	3170	1.5	-180.5	13.6		(A) peristaltic pump w/ ded tubing
	1055	21.19	1.5	7.19	22.8	3150	1.3	-184.4	11.5		B) ded bladder pump
	1058	21.21	2.0	7.22	23.1	3130	1.3	-187.5	10.2		C) non-ded bladder pump; or
	1100	21.23	2.5	7.25	23.1	3120	1.2	-190.3	9.8		*Standard groundwater sample:*
	1103	21.24	3.0	7.28	23.2	3110	1.2	-192.5	9.1		D) bailer due to limited column; or
	1105	21.25	3.5	7.30	23.3	3110	1.2	-195.6	8.5		E) recovery well cycling sample
↓	1108	21.26	4.0	7.32	23.4	3100	1.1	-197.3	8.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/7/20	1110	MW-28	21.26	7.32	23.4	3100	1.1	-197.3	8.1	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-59
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCy (152)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1618	NP	18.11	0.00	32.72	25.3	Yes	Yes	Yes	Yes		Weather: Clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-59								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Support - trailer parking area)

Monitoring Well Purging and Sampling Record

+ Dup-REST-04
+ EB-REST-04

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-60
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (153)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1620	NP	19.35	0.00	37.78	26.7	Yes	Yes	Yes	Yes		Weather: clear, 90s
10/7/20	1000	NP	19.38	0.00								Clear, 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	1005	19.52	0.5	6.56	23.8	3330	1.6	-301.1	7.3	colorless; clear	*Low-flow groundwater sample:*
	1007	19.58	1.0	6.56	23.8	3380	1.9	-307.2	7.1		(A) peristaltic pump w/ ded tubing
	1010	19.63	1.5	6.55	23.8	3410	2.0	-310.4	6.8		B) ded bladder pump
	1012	19.64	2.0	6.55	23.8	3430	2.0	-312.4	6.4		C) non-ded bladder pump; or
	1015	19.65	2.5	6.55	23.8	3440	2.0	-313.7	6.1		*Standard groundwater sample:*
	1017	19.65	3.0	6.55	23.8	3450	1.9	-314.8	5.7		D) bailer due to limited column; or
	1020	19.65	3.5	6.55	23.9	3470	2.0	-315.1	5.6		E) recovery well cycling sample
	1022	19.65	4.0	6.55	24.0	3470	2.0	-315.6	5.6		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	1025	MW-60	19.65	6.55	24.0	3470	2.0	-315.6	5.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	800	DUP-REST-04	19.65	6.55	24.0	3470	2.0	-315.6	5.6	Same	Same	
	1045	EB-REST-04	NA	—	—	—	—	—	→	Same	Same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-107
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCG (154)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1527	17.35	18.68	1.33	19.05	17.1	Yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0							when sampled	(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge		Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-107								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located 15' NW of NW corner of berm; Commonly buried by gravel / silt

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-128
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SC4

(155)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1540	19.06	21.20	2.14	35.35	25.4	yes	Yes	Yes	Yes		Weather: clear, 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
~~10/ 20~~	SC4		0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0		NO SAMPLE;		LNAPL	present	≥0.03'		D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
~~10/ 20~~	SC4	MW-128								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged extension (when Flooded)

Monitoring Well Purging and Sampling Record

+ Trip Blank - REST - 03

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-116
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH/OJD (156)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1600	NP	17.18	0.00	27.63	20.0	Yes	Yes	Yes	Yes		Weather: clear, 90s
10/7/20	1000	NP	17.21	0.00								Clear

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	1005	17.23	0.5	6.89	21.3	3350	2.8	-17.8	7.5	Colorless/Clear	*Low-flow groundwater sample:*
	1008	17.23	1.0	6.85	21.1	3380	2.5	-13.4	7.1		(A) peristaltic pump w/ ded tubing
	1010	17.23	1.5	6.83	20.8	3410	2.3	-11.5	6.6		B) ded bladder pump
	1013	17.23	2.0	6.80	20.7	3430	2.1	-10.3	6.3		C) non-ded bladder pump; or
	1015	17.23	2.5	6.78	20.5	3460	2.1	-8.6	5.7		*Standard groundwater sample:*
	1018	17.23	3.0	6.77	20.3	3470	2.0	-6.1	5.4		D) bailer due to limited column; or
	1020	17.23	3.5	6.75	20.3	3490	2.0	-5.3	5.1		E) recovery well cycling sample
	1023	17.23	4.0	6.73	20.2	3510	1.9	-4.6	4.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	1025	MW-116	17.23	6.73	20.2	3510	1.9	-4.6	4.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-46R
Event: 2H20
Area of Concern: TMD

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

N. side of dirt road; in-line with westernmost row of pecan trees; Position marked on adjacent chain-link fence (12' S. of fence)

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH/DSD (157)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1610	NP	14.56	0.00	19.36	14.1	Yes	Yes	Yes	Yes		Weather: Clear, 92S
10/7/20	915	NP	14.58	0.00								Clear, 70S

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	920	14.60	0.5	6.92	19.3	3150	2.8	13.9	21.4	colorless/clear	*Low-flow groundwater sample:*
	923	14.60	1.0	6.87	19.1	3130	2.5	17.6	16.5		(A) peristaltic pump w/ ded tubing
	925	14.60	1.5	6.83	18.8	3120	2.3	22.5	13.1		B) ded bladder pump
	928	14.60	2.0	6.83	18.6	3110	2.2	27.3	11.5		C) non-ded bladder pump; or
	930	14.60	2.5	6.83	18.6	3110	2.2	30.6	10.8		*Standard groundwater sample:*
	933	14.60	3.0	6.82	18.5	3100	2.1	34.4	10.3		D) bailer due to limited column; or
	935	14.60	3.5	6.82	18.5	3090	2.1	38.1	9.8		E) recovery well cycling sample
	938	14.60	4.0	6.82	18.4	3090	2.1	40.5	9.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	940	MW-46R	14.60	6.82	18.4	3090	2.1	40.5	9.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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[New well installed pre-2H20]

MW-145, 146, 147, 148 on separate COC, 2H20, per TRC

+ EB-01
+ Dup-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-145
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(157.1)

Well Inspection Information

Screen: 9-29 Ft-bgs (Stickup = 2.6')

Initials: SCH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
10/5/20	1600	NP	20.06	0.00	32.10	31.10	Yes	Yes	Yes	Yes		Weather: clear, 70s
10/6/20	1105	NP	20.04	0.00	(hard)	(1 Ft off base)						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1110	20.07	0.5	6.86	24.5	4650	2.7	130.5	170	cloudy	*Low-flow groundwater sample:*
	1112	20.07	1.0	6.79	24.7	4670	2.3	131.0	71.4	sl. cloudy	(A) peristaltic pump w/ ded tubing
	1115	20.07	1.5	6.77	24.3	4670	2.2	130.9	50.2	↓	B) ded bladder pump
	1117	20.07	2.0	6.75	24.1	4670	2.2	130.8	36.4	clear	C) non-ded bladder pump; or
	1120	20.07	2.5	6.74	24.0	4670	2.2	130.7	33.1		*Standard groundwater sample:*
	1122	20.07	3.0	6.73	24.0	4670	2.3	130.4	31.7		D) bailer due to limited column; or
	1125	20.07	3.5	6.72	24.0	4670	2.3	129.9	30.4		E) recovery well cycling sample
↓	1127	20.07	4.0	6.72	24.0	4670	2.3	129.7	29.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
10/6/20	1130	MW-145	20.07	6.72	24.0	4670	2.3	129.7	29.7	Per COC	Per COC	(VOC only)
↓	1000	DUP-01	20.07	6.72	24.0	4670	2.3	129.7	29.7	"	"	(VOC only)
↓	1135	EB-01	NA	~	~	~	~	~	→	"	"	(VOC only)
		(collected over deconned gauging probe; all pumps/tubing ded'icated in respective wells)										
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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[New well installed pre-2H20] MW-145, 146, 147, 148 on separate COC, 2H20, per TRC

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-146
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information

Screen: 10-30 ft-bgs (Stickup = 2.4')

Initials: SCU

157.2

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/5/20	1610	NP	23.31	0.00	33.40	32.40	Yes	Yes	Yes	Yes		Weather: Clear, 70s
10/6/20	1035	NP	23.30	0.00	(hard)	(1 ft off base)						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1040	23.30	0.5	6.96	25.5	4740	2.9	117.0	88	sl. cloudy	*Low-flow groundwater sample:*
	1042	23.30	1.0	6.92	25.3	4750	2.7	118.4	30.7	clear	(A) peristaltic pump w/ ded tubing
	1045	23.30	1.5	6.89	25.1	4750	2.5	119.6	29.1		B) ded bladder pump
	1047	23.30	2.0	6.88	25.0	4750	2.4	120.2	25.1		C) non-ded bladder pump; or
	1050	23.30	2.5	6.86	25.0	4750	2.4	120.7	23.7		*Standard groundwater sample:*
	1052	23.30	3.0	6.83	24.9	4740	2.4	121.8	20.4		D) bailer due to limited column; or
	1055	23.30	3.5	6.81	24.7	4740	2.4	122.7	18.1		E) recovery well cycling sample
↓	1057	23.30	4.0	6.81	24.5	4740	2.4	123.1	17.7	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1100	MW-146	23.30	6.81	24.5	4740	2.4	123.1	17.7	Per COC	Per COC	(VOC only)
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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[New well installed pre-2H20] MW-145, 146, 147, 148 on separate COC, 2H20, per TRC

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-147
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (157.3)

Well Inspection Information

Screen: 20-40 Ft-bgs

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/5/20	1630	NP	30.68	0.00	39.83	38.83	Yes	Yes	Yes	Yes		Weather: Clear, 70S
10/6/20	955	NP	30.70	0.00	(hard)	(1 ft off	base)					

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1000	30.70	0.5	6.74	22.2	5210	5.3	148.6	>200	cloudy	*Low-flow groundwater sample:*
	1002	30.70	1.0	6.71	21.9	5240	5.3	150.7	>200	↓	A: peristaltic pump w/ ded tubing
	1005	30.70	1.5	6.69	21.8	5260	5.3	152.0	>200	↓	(B) ded bladder pump
	1007	30.70	2.0	6.68	21.7	5270	5.2	152.5	>200	↓	C) non-ded bladder pump; or
	1010	30.70	2.5	6.66	21.5	5280	5.3	153.0	>200	↓	*Standard groundwater sample:*
	1012	30.70	3.0	6.65	21.4	5300	5.3	152.7	178	sl. cloudy	D) bailer due to limited column; or
	1015	30.70	3.5	6.65	21.3	5310	5.3	152.5	171	↓	E) recovery well cycling sample
↓	1017	30.70	4.0	6.65	21.3	5310	5.3	152.5	170	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments Lab: Pace National, Mt. Juliet, TN
10/6/20	1020	MW-147	30.70	6.65	21.3	5310	5.3	152.5	170	Per COC	Per COC	(VOC only)
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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[New well installed pre-2H20] MW-145, 146, 147, 148 on separate CoC, 2H20, per TRC

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-148
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH

157.4

Well Inspection Information

Screen: 20-40 ft-bgs

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection: Cap	Casing	Well Secured	Label	Other	Comments
10/5/20	1700	NP	34.37	0.00	40.38	39.38	Yes	Yes	Yes	Yes		Weather: clear, 60s
10/6/20	910	NP	34.40	0.00	(hard)	(1 ft off base)						

Well Purging Record

(pulled pump to collect static DTW)

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	920	*top of	0.5	5.98	22.5	3650	6.1	158.9	>200	cloudy	*Low-flow groundwater sample:*
	922	pump	1.0	6.14	22.5	3670	6.0	161.2	131		A) peristaltic pump w/ ded tubing
	925		1.5	6.31	22.3	3650	5.8	161.5	109		(B) ded bladder pump
	929		2.0	6.38	22.3	3640	5.7	160.8	94		C) non-ded bladder pump; or
	930		2.5	6.43	22.3	3620	5.8	160.3	81	sl. cloudy	*Standard groundwater sample:*
	932		3.0	6.43	22.3	3620	5.9	160.2	69		D) bailer due to limited column; or
	935		3.5	6.46	22.3	3620	5.9	159.8	64		E) recovery well cycling sample
	937		4.0	6.47	22.3	3610	5.9	159.7	62		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments: Lab: Pace National, Mt. Juliet, TN
10/6/20	940	MW-148	*top of pump	6.47	22.3	3610	5.9	159.7	62	Per COC	Per COC	(VOC only)
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Furthest west "city well"

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-3R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (158)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20					38.58	35.6						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								(B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

DO NOT ADDRESS

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		UG-3R								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Location @ North-side park

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-4
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCU (159)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20					39.24	34.5						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5				DO NOT		ADDRESS		E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		UG-4								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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North of elementary school

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-1
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCL (160)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20					24.08	19.1						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

DO NOT ADDRESS

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		UG-1								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located near E-W alley, NW of Artesia Hotel

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: UG-2
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: SCH (161)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20					29.28	24.3						Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0					DO NOT ADDRESS			D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		UG-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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(Recompleted at-grade prior to 1H20) (prior to 2H20, Navajo excavated ~ feet deep around entire well)

Monitoring Well Purging and Sampling Record

+ Trip Blank-REST-04

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-101
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (162)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	835	NP	15.06	0.00	24.10	20.75	Yes	Yes	Yes	Yes		Weather: Sunny, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	840	15.09	0.5	6.70	25.3	1826	3.2	-269.3	7.3	clear / colorless	*Low-flow groundwater sample:*
↓	842	15.09	1.0	6.68	25.2	1815	2.8	-282.5	7.1	↓	(A) peristaltic pump w/ ded tubing
	845	15.10	1.5	6.67	25.2	1792	2.5	-301.2	6.8		B) ded bladder pump
	847	15.10	2.0	6.68	25.1	1773	2.3	-305.4	6.5		C) non-ded bladder pump; or
	850	15.10	2.5	6.69	25.0	1761	2.2	-307.7	6.1		*Standard groundwater sample:*
	852	15.10	3.0	6.69	24.8	1752	2.1	-309.0	6.0		D) bailer due to limited column; or
	855	15.10	3.5	6.70	24.8	1741	2.1	-310.4	5.7		E) recovery well cycling sample
↓	857	15.10	4.0	6.71	24.7	1734	2.0	-311.8	5.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	900	MW-101	15.10	6.71	24.7	1734	2.0	-311.8	5.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-105
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: AB (163)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1450	NP	11.18	0.00	17.20	14.2	yes	yes	yes	yes		Weather: clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1455	11.23	0.5	7.15	29.0	1374	1.4	-357.7	20.3	clear	*Low-flow groundwater sample:*
	1457	11.23	1.0	6.89	28.1	1318	1.2	-363.5	17.4		(A) peristaltic pump w/ ded tubing
	1500	11.23	1.5	6.87	27.8	1312	1.1	-364.5	15.6		B) ded bladder pump
	1503	11.23	2.0	6.79	27.5	1290	1.0	-363.2	15.0		C) non-ded bladder pump; or
	1505	11.23	2.5	6.78	27.5	1260	0.9	-361.7	14.8		*Standard groundwater sample:*
	1507	11.23	3.0	6.77	27.4	1258	0.8	-360.0	11.5		D) bailer due to limited column; or
	1510	11.23	3.5	6.76	27.4	1256	0.7	-361.7	10.3		E) recovery well cycling sample
	1513	11.23	4.0	6.75	27.4	1254	0.7	-362.6	10.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1515	MW-105	11.23	6.75	27.4	1254	0.7	-362.6	10.0	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Located in "Doghouse"; Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-2
Event: 21120
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (164)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1400	15.60	16.88	1.28	36.13	31.1	yes	yes	yes	yes		Weather: Clear 85°

Well Purging Record

* Gauge/Sample through labeled 1-in guide-pipe

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0			Gauge	Only				F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20		RW-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-61
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAS (165)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1300	NP	14.97	0.00	29.30	24.3	YES	YES	YES	YES		Weather: Clear 80°

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1305	15.15	0.5	6.95	28.9	2430	1.1	-359.4	17.6	Clear	*Low-flow groundwater sample:*
	1307	15.27	1.0	6.92	28.4	2410	0.9	-362.6	13.6		(A) peristaltic pump w/ ded tubing
	1310	15.38	1.5	6.91	28.0	2360	0.9	-364.3	11.4		B) ded bladder pump
	1313	15.46	2.0	6.90	27.5	2340	0.8	-363.1	10.1		C) non-ded bladder pump; or
	1315	15.56	2.5	6.89	27.2	2310	0.9	-358.1	9.8		*Standard groundwater sample:*
	1320	15.66	3.0	6.89	27.2	2300	0.9	-357.1	6.0		D) bailer due to limited column; or
	1325	15.76	3.5	6.88	27.2	2360	1.0	-355.0	5.6		E) recovery well cycling sample
	1330	15.80	4.0	6.87	27.2	2310	1.0	-354.7	4.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1335	MW-61	15.80	6.87	27.2	2310	1.0	-354.7	4.9	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-62
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: OJD (166)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1510	NP	17.56	0.00	29.50	21.3	Yes	Yes	Yes	Yes		Weather: Clear 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1515	17.75	0.5	6.81	23.5	2680	1.9	-331.4	10.8	Gray Tint/Clear	Low-flow groundwater sample:
	1518	17.82	1.0	6.75	23.3	2650	1.6	-338.6	9.8	Odor	(A) peristaltic pump w/ ded tubing
	1520	17.89	1.5	6.71	23.1	2630	1.5	-342.5	9.3		B) ded bladder pump
	1523	17.97	2.0	6.68	22.8	2620	1.5	-345.6	8.6		C) non-ded bladder pump; or
	1525	18.06	2.5	6.65	22.5	2610	1.4	-347.8	8.2		Standard groundwater sample:
	1528	18.12	3.0	6.62	22.4	2590	1.3	-350.6	8.5		D) bailer due to limited column; or
	1530	18.19	3.5	6.59	22.4	2580	1.3	-352.4	8.1		E) recovery well cycling sample
	1533	18.22	4.0	6.57	22.3	2570	1.3	-353.1	7.8		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20	1535	MW-62	18.22	6.57	22.3	2570	1.3	-353.1	7.8	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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[New well installed pre-2H20]

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-62R
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: DSD

166.1

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1555	NP	17.29	0.00	24.51	22.51	Yes	Yes	Yes	Yes		Weather: Clear 80s
						(screen:	5-25 Ft-bgs)					

(Intake = 2 ft off base)

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20	1600	17.41	0.5	6.68	24.5	2260	2.1	-324.1	12.4	Gray tint/clear	*Low-flow groundwater sample:*
	1603	17.49	1.0	6.65	24.3	2250	1.8	-317.5	11.5	small gray particles	(A) peristaltic pump w/ ded tubing
	1605	17.51	1.5	6.63	24.1	2230	1.7	-313.2	10.8	↓	B) ded bladder pump
	1607	17.51	2.0	6.62	23.8	2230	1.5	-310.8	10.2	↓	C) non-ded bladder pump; or
	1610	17.51	2.5	6.62	23.7	2220	1.4	-308.4	9.6	↓	*Standard groundwater sample:*
	1612	17.52	3.0	6.62	23.7	2220	1.4	-303.6	9.1	Gray tint/clear	D) bailer due to limited column; or
	1615	17.52	3.5	6.61	23.6	2210	1.3	-300.5	8.4	↓	E) recovery well cycling sample
↓	1617	17.52	4.0	6.61	23.6	2200	1.3	-298.8	8.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10-6-20	1620	MW-62R	17.52	6.61	23.6	2200	1.3	-298.8	8.1	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-93
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TR (167)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1420	11.86	11.90	0.00	20.23	15.9	yes	yes	yes	yes		Weather: Clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-93								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-43
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in.	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RSM (168)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1445	NP	15.85	0.00	19.67	16.5	Yes	Yes	Yes	Yes		Weather: Sunny 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1450	15.91	0.5	6.90	27.4	3330	3.2	-371.5	12.8	Clear / Colorless	*Low-flow groundwater sample:*
↓	1452	15.95	1.0	6.85	27.1	3270	2.6	-377.1	10.3	↓	(A) peristaltic pump w/ ded tubing
	1455	15.99	1.5	6.83	27.0	3240	2.2	-379.6	9.2		B) ded bladder pump
	1457	16.02	2.0	6.80	27.0	3200	2.0	-380.2	9.0		C) non-ded bladder pump; or
	1500	16.04	2.5	6.78	26.8	3180	1.8	-380.8	8.6		*Standard groundwater sample:*
	1502	16.05	3.0	6.76	26.8	3150	1.7	-381.4	8.1		D) bailer due to limited column; or
	1505	16.05	3.5	6.76	26.9	3130	1.7	-382.2	7.5		E) recovery well cycling sample
↓	1507	16.06	4.0	6.75	26.8	3120	1.6	-382.7	7.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1510	MW-43	16.06	6.75	26.8	3120	1.6	-382.7	7.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-137
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (169)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1405	13.41	14.97	1.56	29.60	24.6	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0	Not Sampled due to LNAPL				≥ 0.03'			D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20		MW-137								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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[New well installed pre -2H20]

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-137A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM

169.1

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1425	13.49	14.67	1.13	14.88	NS	yes	yes	yes	yes		Weather: Sunny 90's
						Intake at	base of well	(if not	dry)	if	no LNAPL)	

Screen: 5.5 - 15.5 ft-bgs

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5	NOT Sampled due to LNAPL = 0.03'							*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-137A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-138
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (170)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1330	14.81	17.88	3.07	24.81	19.8	yes	yes	yes	yes		Weather: Sunny. 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0		Not Sampled	due to	LNAPL ≥	0.03'			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20		MW-138								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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[New well installed pre-2H20]

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-138A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM

170.1

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1345	14.59	NM	0.44	15.03	NS	Yes	Yes	Yes	Yes		Weather: Sunny 80's
						Intake at base of well (if not dry)						

Well Purging Record

* LNAPL present to base of well

Screen: 5.5-15.5 ft-bgs

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-6-20			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0	Not Sampled due to LNAPL Z				0.03'			C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-6-20		MW-138A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-23
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB/OJD (171)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1230	NP	18.31	0.00	23.10	17.9	yes	yes	yes	yes		Weather: Clear/ 80s
10/6/20	1640	NP	18.31	0.00	23.10							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1645	18.39	0.5	6.92	24.1	2380	1.7	-312.3	13.5	Yellow tint/Clear	*Low-flow groundwater sample:*
	1648	18.43	1.0	6.92	23.8	2360	1.5	-310.7	11.6	odor	(A) peristaltic pump w/ ded tubing
	1650	18.46	1.5	6.92	23.7	2370	1.3	-316.4	10.8		B) ded bladder pump
	1653	18.49	2.0	6.92	23.5	2350	1.2	-319.3	9.7		C) non-ded bladder pump; or
	1655	18.53	2.5	6.93	23.4	2340	1.2	-323.1	9.1		*Standard groundwater sample:*
	1658	18.55	3.0	6.93	23.3	2340	1.2	-327.2	8.3		D) bailer due to limited column; or
	1700	18.58	3.5	6.93	23.2	2330	1.1	-331.5	7.8		E) recovery well cycling sample
	1703	18.61	4.0	6.93	23.2	2320	1.1	-334.4	7.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	1705	MW-23	18.61	6.93	23.2	2320	1.1	-334.4	7.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Dup = TEL-01

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-4
Event: 2H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (172)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	930	NP	14.80	0.00	27.27	22.2	yes	yes	yes	yes		Weather: Clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	935	15.04	0.5	6.54	24.7	3150	1.5	-299.0	0.7	Clear	*Low-flow groundwater sample:*
	937	15.04	1.0	6.52	24.5	3160	1.2	-300.5	0.7		(A) peristaltic pump w/ ded tubing
	940	15.04	1.5	6.50	24.2	3170	1.1	-301.9	0.6		B) ded bladder pump
	943	15.04	2.0	6.47	24.2	3190	0.9	-306.3	0.6		C) non-ded bladder pump; or
	945	15.04	2.5	6.47	24.1	3200	0.9	-307.6	0.5		*Standard groundwater sample:*
	947	15.04	3.0	6.47	24.1	3200	0.8	-308.2	0.4		D) bailer due to limited column; or
	950	15.04	3.5	6.48	24.2	3210	0.8	-307.9	0.4		E) recovery well cycling sample
	953	15.04	4.0	6.48	24.2	3210	0.8	-308.1	0.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	955	TEL-4	15.04	6.48	24.2	3210	0.8	-308.1	0.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
	1100	DUP-TEL-01	15.04	6.48	24.2	3210	0.8	-308.1	0.5	same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-3
Event: 2420
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (173)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	820	NP	15.90	0.00	27.19	22.2	yes	yes	yes	yes		Weather: Clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	825	16.10	0.5	6.57	23.9	2430	4.1	-347.9	2.2	Clear/Odor	*Low-flow groundwater sample:*
	827	16.12	1.0	6.56	23.8	2400	3.9	-347.7	1.9		(A) peristaltic pump w/ ded tubing
	830	16.12	1.5	6.54	23.7	2310	3.8	-350.9	1.5		B) ded bladder pump
	833	16.12	2.0	6.53	23.6	2300	3.6	-351.0	1.4		C) non-ded bladder pump; or
	835	16.12	2.5	6.53	23.5	2250	3.2	-355.5	1.3		*Standard groundwater sample:*
	837	16.12	3.0	6.52	23.5	2260	3.1	-355.7	1.3		D) bailer due to limited column; or
	840	16.12	3.5	6.52	23.5	2250	3.1	-355.9	1.0		E) recovery well cycling sample
↓	843	16.12	4.0	6.52	23.4	2250	3.0	-356.8	0.5	↓ ↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/6/20	845	TEL-3	16.12	6.52	23.4	2250	3.0	-356.8	0.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

+ EB-TEL-01

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-2
Event: 2H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAS (174)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	900	16.81	17.25	0.38	27.20	22.1	YES	YES	YES	YES		Weather: Clear 60s
		(16.87)										

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5	Not Sampled Due to				LNAPL	≥ 0.03'		*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		TEL-2								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓	910	EB-TEL-01	NA							same	same	
		(collected over decanned gauging probe)										

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ Trip Blank - TEL-01

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: TEL-1
Event: 2H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAS (175)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	7410	16.14	16.80	0.66	27.00	22.9	yes	yes	yes	yes		Weather: Clear 60s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0	Not Sampled Due to LNAPL					≥ 0.03'		C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		TEL-1								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-39
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (176)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	945	NP	16.84	0.00	25.44	20.4	yes	yes	yes	yes		Weather: Sunny 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	950	16.93	0.5	7.26	25.7	2640	3.1	-269.1	10.8	Clear / Colorless	*Low-flow groundwater sample:*
	952	16.95	1.0	7.25	25.5	2670	2.8	-284.5	9.2		(A) peristaltic pump w/ ded tubing
	955	16.96	1.5	7.28	25.5	2690	2.3	-287.3	8.6		B) ded bladder pump
	957	16.96	2.0	7.28	25.4	2710	2.0	-290.1	7.9		C) non-ded bladder pump; or
	1000	16.96	2.5	7.27	25.2	2720	1.8	-292.6	7.5		*Standard groundwater sample:*
	1002	16.96	3.0	7.26	25.2	2710	1.7	-295.3	7.0		D) bailer due to limited column; or
	1005	16.96	3.5	7.26	25.1	2720	1.7	-297.8	6.7		E) recovery well cycling sample
	1007	16.96	4.0	7.26	25.2	2730	1.6	-299.1	6.2		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1010	MW-39	16.96	7.26	25.2	2730	1.6	-299.1	6.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-98
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB

(177)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1040	NP	13.54	0.00	25.60	21.5	yes	yes	yes	yes		Weather: clear 70s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1045	13.59	0.5	6.75	27.7	2940	2.0	-360.7	3.9	clear / odor	*Low-flow groundwater sample:*
	1047	13.59	1.0	6.65	26.5	2850	1.2	-365.1	2.2	↓	(A) peristaltic pump w/ ded tubing
	1050	13.59	1.5	6.63	26.1	2750	1.1	-366.8	1.3	↓	B) ded bladder pump
	1053	13.60	2.0	6.62	25.9	2710	1.0	-370.9	1.2	↓	C) non-ded bladder pump; or
	1055	13.60	2.5	6.62	25.7	2680	0.9	-375.3	1.2	↓	*Standard groundwater sample:*
	1057	13.61	3.0	6.61	25.7	2670	0.8	-378.2	1.0	↓	D) bailer due to limited column; or
	1100	13.61	3.5	6.61	25.7	2660	0.8	-378.7	0.6	↓	E) recovery well cycling sample
↓	1103	13.61	4.0	6.62	25.6	2650	0.8	-380.0	0.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1105	MW-98	13.61	6.62	25.6	2650	0.8	-380.0	0.5	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-10
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

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Well Inspection Information The former RW-10 is permanently covered by heavy steel box. Current RW-10 is the stand-pipe ~50' South of former RW-10, per Navajo. Initials:

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	750	NP	16.76	0.00	22.49	17.5	yes	yes	yes	yes		Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-10								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-40
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (179)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1200	NP	15.40	0.00	24.75	21.8	yes	yes	yes	yes		Weather: Clear/ 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge Only					C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-40								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-41
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (180)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	930	NP	14.74	0.00	21.56	18.6	Yes	Yes	Yes	Yes		Weather: Sunny, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge	Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-41								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-9
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

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Well Inspection Information The former RW-9 is permanently covered by heavy steel box, ~50' East of former RW-9, per Navajo. Initials: RJM

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	935	NP	16.75	0.00	21.83	16.8	Yes	Yes	Yes	Yes		Weather: Sunny 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5				Gauge Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-9								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-42
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (182)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1150	NP	17.04	0.00	24.32	21.3	yes	yes	yes	yes		Weather: clear 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5				Gauge	Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-42								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-29
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (183)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1220	NP	22.19	0.00	24.22	19.2	yes	yes	yes	yes		Weather: Clear 86°
10/7/20	900	NP	22.22	0.00	24.22	↳ lowered intake to 23.5						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/7/20	905	22.24	0.5	7.16	22.6	3050	2.7	-255.8	3.8	clear	*Low-flow groundwater sample:*
	907	22.24	1.0	7.21	22.6	3060	2.0	-271.8	3.7		(A) peristaltic pump w/ ded tubing
	910	22.24	1.5	7.23	22.6	3060	1.7	-280.6	3.2		B) ded bladder pump
	913	22.24	2.0	7.25	22.7	3060	1.4	-298.5	2.9		C) non-ded bladder pump; or
	915	22.24	2.5	7.25	22.7	3060	1.2	-303.5	2.4		*Standard groundwater sample:*
	917	22.24	3.0	7.25	22.8	3070	1.2	-306.9	2.5		D) bailer due to limited column; or
	920	22.24	3.5	7.23	22.8	3070	1.2	-308.1	2.3		E) recovery well cycling sample
	923	22.24	4.0	7.23	22.9	3070	1.2	-309.9	2.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10/7/20	925	MW-29	22.24	7.23	22.9	3070	1.2	-309.9	2.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#16B
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 8-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RSM (184)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	925	NM	Dry	NA	17.70	14.7	Yes	Yes	Yes	Yes	*Cracked Pad	Weather: Sunny 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5				Gauge Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#16B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-30
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB

(185)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1130	NP	17.71	0.00	23.50	NS	yes	yes	yes	yes		Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-30								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-56
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (186)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1140	NP	18.51	0.00	26.50	21.4	Yes	yes	yes	yes		Weather: cl/cal 90s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5				Gauge Only				*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-56								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Located under yellow barricade

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-49
Event: 2H20
Area of Concern: TEL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: RJM (187)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1235	NP	14.15	0.00	33.07	27.8	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1240	14.32	0.5	6.62	26.3	2920	3.3	-366.4	16.1	Clear / Colorless	*Low-flow groundwater sample:*
↓	1242	14.38	1.0	6.60	26.1	2910	3.0	-367.6	13.3	↓	(A) peristaltic pump w/ ded tubing
	1245	14.40	1.5	6.58	26.0	2910	2.8	-367.9	9.9		B) ded bladder pump
	1247	14.40	2.0	6.58	26.0	2900	2.7	-368.2	9.1		C) non-ded bladder pump; or
	1250	14.40	2.5	6.57	25.9	2890	2.6	-369.4	8.7		*Standard groundwater sample:*
	1252	14.40	3.0	6.56	25.9	2880	2.6	-369.9	8.4		D) bailer due to limited column; or
	1255	14.40	3.5	6.56	25.8	2870	2.5	-370.5	7.6		E) recovery well cycling sample
↓	1257	14.40	4.0	6.55	25.7	2870	2.5	-371.2	7.5	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1300	MW-49	14.40	6.55	25.7	2870	2.5	-371.2	7.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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May get covered with gravel

Monitoring Well Purging and Sampling Record

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: MW-106
Event: 2Q20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(188)

Well Inspection Information *Located in-line with the Final letter "A" from "Ammonia" sign on gray tank with yellow ladder. Initials: RJM

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1035	NP	11.81	0.00	22.80	17.5	Yes	Yes	Yes	Yes		Weather: Sunny 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1040	11.90	0.5	6.63	25.9	3320	3.9	-375.2	19.2	clear / colorless	*Low-flow groundwater sample:*
	1042	11.94	1.0	6.59	26.0	3300	3.8	-383.9	17.4		(A) peristaltic pump w/ ded tubing
	1045	11.97	1.5	6.57	25.9	3300	3.0	-386.4	12.6		B) ded bladder pump
	1047	11.99	2.0	6.56	25.8	3290	2.5	-388.8	9.2		C) non-ded bladder pump; or
	1050	12.00	2.5	6.54	25.8	3280	2.1	-390.3	8.6		*Standard groundwater sample:*
	1052	12.01	3.0	6.54	25.7	3310	2.0	-391.4	8.5		D) bailer due to limited column; or
	1055	12.01	3.5	6.53	25.6	3320	1.9	-391.8	8.2		E) recovery well cycling sample
	1057	12.02	4.0	6.53	25.6	3320	1.9	-392.9	7.3		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1200	MW-106	12.02	6.53	25.6	3320	1.9	-392.9	7.3	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-45
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: TAB (189)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10/6/20	1545	NP	13.20	0.00	15.05	12.3 *	yes	yes	yes	yes		Weather: Clear 80°

Well Purging Record

* Sample intake lowered due to DTW

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10/6/20	1550	13.24	0.5	7.57	25.8	2730	1.2	-220.4	7.7	Clear	*Low-flow groundwater sample:*
	1553	13.24	1.0	7.56	25.1	2740	1.1	-222.0	6.8		(A) peristaltic pump w/ ded tubing
	1555	13.24	1.5	7.55	25.0	2730	1.1	-222.7	6.5		B) ded bladder pump
	1557	13.24	2.0	7.52	24.5	2720	1.0	-224.2	5.2		C) non-ded bladder pump; or
	1600	13.24	2.5	7.51	24.4	2720	1.0	-225.3	4.8		*Standard groundwater sample:*
	1603	13.24	3.0	7.50	24.3	2710	0.9	-225.7	4.0		D) bailer due to limited column; or
	1605	13.24	3.5	7.49	24.2	2710	0.9	-226.1	3.2		E) recovery well cycling sample
	1607	13.24	4.0	7.48	24.2	2720	0.9	-226.3	3.0		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10/6/20	1610	MW-45	13.24	7.48	24.2	2720	0.9	-226.3	3.0	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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SW corner of Louden Bldg.
Installed 2H19.

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-139
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (190)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1030	NP	14.51	0.00	29.60	24.6	Yes	Yes	Yes	Yes		Weather: Clear, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1035	14.56	0.5	6.76	23.5	4180	1.7	-134.1	15.8	Colorless; clear;	*Low-flow groundwater sample:*
↓	1037	14.56	1.0	6.74	23.1	4190	1.7	-141.3	14.0	sl. odor	(A) peristaltic pump w/ ded tubing
	1040	14.56	1.5	6.72	22.9	4180	1.7	-147.3	12.1	↓	B) ded bladder pump
	1042	14.56	2.0	6.71	22.7	4180	1.7	-151.4	11.4		C) non-ded bladder pump; or
	1045	14.56	2.5	6.71	22.6	4190	1.6	-153.1	10.6		*Standard groundwater sample:*
	1047	14.56	3.0	6.70	22.6	4190	1.6	-152.6	9.7		D) bailer due to limited column; or
	1050	14.56	3.5	6.70	22.5	4190	1.6	-151.2	9.4		E) recovery well cycling sample
↓	1052	14.56	4.0	6.70	22.5	4190	1.6	-150.0	9.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10.6.20	1055	mw-139	14.56	6.70	22.5	4190	1.6	-150.0	9.0	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-50
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(191)

Well Inspection Information *Located in Artesia Wool laydown yard, N. of main warehouse.

Initials: CJH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1100	NP	15.41	0.00	28.22	24.1	Yes	Yes	Yes	Yes		Weather: Clear, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1105	15.42	0.5	6.96	26.0	8320	1.4	-38.5	11.9	Colorless; Clear	*Low-flow groundwater sample:*
↓	1107	15.42	1.0	6.86	25.3	8700	1.5	-21.3	10.1	↓	(A) peristaltic pump w/ ded tubing
	1110	15.42	1.5	6.84	25.2	8750	1.5	-15.2	9.8		B) ded bladder pump
	1112	15.42	2.0	6.83	25.2	8780	1.5	-11.2	9.4		C) non-ded bladder pump; or
	1115	15.42	2.5	6.83	25.1	8790	1.5	-9.0	9.1		*Standard groundwater sample:*
	1117	15.42	3.0	6.82	25.1	8800	1.6	-7.7	8.0		D) bailer due to limited column; or
	1120	15.42	3.5	6.82	25.0	8810	1.6	-6.4	7.8		E) recovery well cycling sample
↓	1122	15.42	4.0	6.81	25.0	8820	1.6	-6.1	7.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10.6.20	1125	MW-50	15.42	6.81	25.0	8820	1.6	-6.1	7.0	Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-97
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (192)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1140	NM	NM	NM	21.20	5' aff	NA	NA	NA	NA		Weather: Clear, 80's
						base						

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Extensively searched for, but:						(A) peristaltic pump w/ ded tubing
			1.5		Due to heavy construction in area;						B) ded bladder pump
			2.0		Well was unable to be located.						C) non-ded bladder pump; or
			2.5		Area has been graded with						*Standard groundwater sample:*
			3.0		excess soil and pea gravel.						D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-97				Not sampled				Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-92
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (193)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1150	14.68	17.69	3.01	22.60	17.6	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

*LNAPL thickness Confirmed

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0			Not Sampled	; LNAPL	≥ 0.03.			(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-92								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-1
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Well Inspection Information In "doghouse"; gauge/sample through 1-in guide-pipe

Initials: CJH (194)

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1200	17.61	18.21	0.60	35.39	30.4	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0			Gauge Only					D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-1								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-91
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(195)

Initials: CJH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1210	14.87	14.91	0.04	25.35	17.9	Yes	Yes	Yes	Yes		Weather: Clear; 80's
				*								

* LNAPL Confirmed

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	Sampled; LNAPL ≥ 0.03.					(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-91								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-90
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (196)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1220	NP	14.47	0.00	22.80	21.5	Yes	Yes	Yes	Yes		Weather: Clear, 80s

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1225	14.56	0.5	6.95	25.8	4210	1.4	-319.5	12.1	Colorless; clear;	*Low-flow groundwater sample:*
↓	1227	14.61	1.0	6.90	24.9	3870	1.2	-336.7	10.7	Odor ↓	(A) peristaltic pump w/ ded tubing
	1230	14.65	1.5	6.78	24.1	3670	1.4	-349.6	9.5		B) ded bladder pump
	1232	14.69	2.0	6.72	23.9	3610	1.4	-356.1	9.0		C) non-ded bladder pump; or
	1235	14.73	2.5	6.69	23.8	3580	1.5	-360.1	8.6		*Standard groundwater sample:*
	1237	14.76	3.0	6.67	23.7	3560	1.6	-364.4	8.1		D) bailer due to limited column; or
	1240	14.78	3.5	6.66	23.7	3550	1.6	-367.1	7.5		E) recovery well cycling sample
↓	1242	14.80	4.0	6.65	23.6	3540	1.6	-370.2	7.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1245	MW-90	14.80	6.65	23.6	3540	1.6	-370.2	7.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-96
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (197)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1425	NP	15.03	0.00	25.57	21.2	Yes	Issue	NO	Yes		Weather: Clear, 80's
									Lock			

Well Purging Record

* Well was struck prior to 2H17 event. Hinge is broken and well not secure.

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1430	15.05	0.5	6.76	26.7	2150	1.6	-363.1	9.4	Colorless; Clear;	*Low-flow groundwater sample:*
	1432	15.06	1.0	6.72	25.8	2150	1.6	-368.2	9.0	sl. odor	(A) peristaltic pump w/ ded tubing
	1435	15.06	1.5	6.70	25.4	2160	1.7	-369.2	8.4		B) ded bladder pump
	1437	15.06	2.0	6.69	25.3	2160	1.6	-369.4	8.1		C) non-ded bladder pump; or
	1440	15.06	2.5	6.69	25.2	2170	1.5	-368.1	7.7		*Standard groundwater sample:*
	1442	15.06	3.0	6.68	25.2	2170	1.5	-367.4	7.2		D) bailer due to limited column; or
	1445	15.06	3.5	6.68	25.1	2180	1.4	-366.0	6.9		E) recovery well cycling sample
	1447	15.06	4.0	6.67	25.1	2180	1.4	-365.1	6.5		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1450	MW-96	15.06	6.67	25.1	2180	1.4	-365.1	6.5	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-94
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (198)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1505	16.94	22.45	5.51	23.45	16.0	Yes	Yes	Yes	Yes		Weather: Clear, 90's
				*								

Well Purging Record

* Thickness Confirmed

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	sampled; LNAPL	>	0.03'			(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-94				Not	Sampled			Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Bagged tube

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-8
Event: 2Q20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(199)

Well Inspection Information In "doghouse"; gauge/sample through 1-in. guide-pipe.

Initials: CJH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1515	18.17	21.72	3.55	37.22	35.2	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
										Per COC	Per COC	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-67
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in __	PVC ✓
Upright __	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (200)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1525	14.42	16.28	1.86	27.30	19.9	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0		Not	Sampled; LNAPL ≥ 0.03'.					(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-67				Not	Sampled			Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-95
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (201)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1535	NP	17.13	0.00	25.37	20.4	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-95								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-7
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

(202)

Well Inspection Information In "doghouse"; gauge/sample through 1-in guide-pipe.

Initials: CJH

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1550	18.79	20.95	2.16	37.00	32.0	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Gauge Only

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-7								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-34A
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (203)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1605	15.01	19.26	4.25	19.26	10.8	Yes	Yes	No Lock	Yes		Weather: Clear, 90's

Well Purging Record

* LNAPL Confirmed

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20			0.5					≥			*Low-flow groundwater sample:*
			1.0		Not	Sampled; LNAPL 0.03!					(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		NCL-34A				Not	Sampled			Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-33
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (204)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1620	NP	14.04	0.00	19.60	17.7	Yes	Yes	Yes	Yes		Weather: Clear, 90's
10.7.20	1005	NP	14.04	0.00	19.60							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.7.20	1010	14.24	0.5	6.48	22.6	4690	2.1	-89.3	45.8	sl. cloudy;	*Low-flow groundwater sample:*
↓	1012	14.30	1.0	6.45	22.6	4750	1.9	-87.1	32.1 ↓	orange particles	(A) peristaltic pump w/ ded tubing
	1015	14.35	1.5	6.45	22.7	4760	1.8	-82.3	23.0	Colorless; clear;	B) ded bladder pump
	1017	14.39	2.0	6.45	22.7	4760	1.7	-79.3	16.0	orange particles	C) non-ded bladder pump; or
	1020	14.43	2.5	6.45	22.7	4760	1.7	-75.1	12.7	↓	*Standard groundwater sample:*
	1022	14.45	3.0	6.44	22.8	4770	1.6	-72.6	10.2		D) bailer due to limited column; or
	1025	14.47	3.5	6.44	22.8	4770	1.6	-70.2	9.6		E) recovery well cycling sample
↓	1027	14.49	4.0	6.44	22.8	4770	1.6	-68.4	9.1	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.7.20	1030	NCL-33	14.49	6.44	22.8	4770	1.6	-68.4	9.1	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-44
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (205)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1630	NP	13.81	0.00	21.34	16.3	Yes	Yes	Yes	Yes		Weather: Clear, 60's
10.7.20	925	NP	13.82	0.00								

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.7.20	930	13.84	0.5	6.66	21.1	3040	1.9	-167.1	9.1	Colorless; Clear	*Low-flow groundwater sample:*
	932	13.84	1.0	6.64	21.0	3050	1.9	-177.3	8.6		(A) peristaltic pump w/ ded tubing
	935	13.84	1.5	6.63	21.0	3040	1.8	-183.8	8.0		B) ded bladder pump
	937	13.84	2.0	6.63	20.9	3040	1.8	-189.5	7.4		C) non-ded bladder pump; or
	940	13.84	2.5	6.63	20.9	3040	1.7	-197.6	7.0		*Standard groundwater sample:*
	942	13.84	3.0	6.62	20.8	3050	1.7	-201.4	6.5		D) bailer due to limited column; or
	945	13.84	3.5	6.62	20.8	3050	1.7	-204.6	5.9		E) recovery well cycling sample
	947	13.84	4.0	6.61	20.8	3050	1.7	-207.1	5.9		F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.7.20	950	NCL-44	13.84	6.61	20.8	3050	1.7	-207.1	5.9	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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+EB-NCL-01

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-32
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (206)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1635	NP	13.96	0.00	20.04	18.1	Yes	Yes	Yes	Yes		Weather: Clear, 100's
10.7.20	840	NP	13.97	0.00	20.04							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.7.20	845	14.07	0.5	7.29	20.7	3130	2.0	11.2	19.6	Colorless; clear	*Low-flow groundwater sample:*
↓	847	14.08	1.0	6.98	20.6	3140	1.7	18.3	17.1	↓	(A) peristaltic pump w/ ded tubing
	850	14.08	1.5	6.87	20.5	3140	1.7	22.7	15.4		B) ded bladder pump
	852	14.09	2.0	6.83	20.5	3140	1.7	26.2	13.7		C) non-ded bladder pump; or
	855	14.09	2.5	6.81	20.4	3140	1.6	28.1	12.0		*Standard groundwater sample:*
	857	14.09	3.0	6.80	20.4	3150	1.6	29.6	11.2		D) bailer due to limited column; or
	900	14.09	3.5	6.79	20.5	3150	1.6	30.4	10.4		E) recovery well cycling sample
↓	902	14.09	4.0	6.78	20.5	3150	1.6	31.3	9.6	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.7.20	905	NCL-32	14.09	6.78	20.5	3150	1.6	31.3	9.6	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN
↓												
↓	915	EB-NCL-01	NA	—	—	—	—	—	→	same	same	

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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*Access on foot

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-108
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in ✓	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (207)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1345	NP	17.89	0.00	27.74	22.5	Yes	Yes	Yes	Yes		Weather: Clear, 80's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1350	17.98	0.5	6.92	28.0	1729	1.5	-374.5	21.7	Yellow Color;	*Low-flow groundwater sample:*
↓	1352	18.07	1.0	6.85	27.5	1680	1.3	-382.1	18.0	Clear; odor	(A) peristaltic pump w/ ded tubing
	1355	18.14	1.5	6.83	27.2	1657	1.4	-384.9	15.6	↓	B) ded bladder pump
	1357	18.19	2.0	6.83	27.0	1649	1.5	-385.1	13.2		C) non-ded bladder pump; or
	1400	18.24	2.5	6.82	26.9	1643	1.5	-386.7	12.1		*Standard groundwater sample:*
	1402	18.29	3.0	6.81	26.8	1639	1.4	-387.9	10.4		D) bailer due to limited column; or
	1405	18.33	3.5	6.80	26.7	1636	1.4	-388.4	9.8		E) recovery well cycling sample
↓	1407	18.37	4.0	6.80	26.7	1632	1.4	-389.6	9.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1410	MW-108	18.37	6.80	26.7	1632	1.4	-389.6	9.0	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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SW of NCL field

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-31
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (208)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1300	NP	14.44	0.00	20.16	17.4	*	Yes	Yes	Yes		Weather: Clear, 80's
							Issue					

* Cannot close lid and fit cap; NO cap present.

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	1305	14.60	0.5	7.37	27.4	3060	1.2	-306.1	8.0	Colorless; Clear	*Low-flow groundwater sample:*
↓	1307	14.61	1.0	7.26	26.7	2940	1.2	-309.9	7.4	↓	(A) peristaltic pump w/ ded tubing
	1310	14.61	1.5	7.17	26.5	2880	1.3	-304.4	7.1		B) ded bladder pump
	1312	14.62	2.0	7.14	26.3	2800	1.2	-299.2	6.5		C) non-ded bladder pump; or
	1315	14.62	2.5	7.11	26.2	2760	1.2	-294.6	6.2		*Standard groundwater sample:*
	1317	14.62	3.0	7.09	26.1	2740	1.2	-291.5	6.0		D) bailer due to limited column; or
	1320	14.62	3.5	7.07	26.0	2720	1.2	-288.6	5.6		E) recovery well cycling sample
↓	1322	14.62	4.0	7.05	26.0	2710	1.2	-286.1	5.4	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10.6.20	1325	NCL-31	14.62	7.05	26.0	2710	1.2	-286.1	5.4	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record (Not in "Sampling" Program)

Navajo Refinery Company
Artesia Refinery
Artesia, New Mexico

Well: MW-19
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

209

Initials: CJH

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1340	NP	14.80	0.00	22.08	NS	Yes	Yes	Issue *	Yes		Weather: Clear, 80's

* Needs protective casing.

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0				Gauge Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-19								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-55
Event:
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: BRH / TAB (210)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10-6-20	1755	NP	16.64	0.00	26.85	21.7	yes	yes	yes	yes		Weather: Clear
10-7-20	800	NP	16.66	0.06	26.85							

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10-7-20	805	16.70	0.5	6.95	20.5	2990	3.3	15.6	4.5	Clear	*Low-flow groundwater sample:*
	807	16.70	1.0	6.81	20.6	2980	2.8	22.2	3.2		(A) peristaltic pump w/ ded tubing
	810	16.70	1.5	6.73	20.7	2940	2.6	29.3	2.5		B) ded bladder pump
	813	16.70	2.0	6.68	20.8	2940	2.4	33.4	2.1		C) non-ded bladder pump; or
	815	16.70	2.5	6.63	20.8	2930	2.2	36.2	1.9		*Standard groundwater sample:*
	817	16.70	3.0	6.62	20.8	2910	2.1	37.2	1.7		D) bailer due to limited column; or
	820	16.70	3.5	6.60	20.9	2900	2.0	38.3	1.5		E) recovery well cycling sample
↓	823	16.70	4.0	6.59	20.9	2900	2.0	38.8	1.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
10-7-20	825	MW-55	16.70	6.59	20.9	2900	2.0	38.8	1.2	Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: RW-#17A
Event: 2H20
Area of Concern: REST

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Bell-shaped PVC stickup w/ PVC slip cap

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (211)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1650	Dry	Dry	NA	16.01	14.0	Yes	Yes	Yes	Yes		Weather: Clear, 90's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5			Gauge Only					*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		RW-#17A								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-18
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in __	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other 6-in	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (212)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	1645	NP	15.85	0.00	22.20	20.2	Yes	Yes	Yes	Yes		Weather:

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0								C) non-ded bladder pump; or
			2.5				Gauge	Only			*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-18								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-54A
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH

213

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	905	NP	16.50	0.00	31.30	23.6	Yes	Yes	Yes	Yes		Weather: Clear, 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	910	16.51	0.5	6.63	21.5	2530	2.1	53.1	8.7	Colorless; clear	*Low-flow groundwater sample:*
↓	912	16.51	1.0	6.57	21.5	2550	2.1	51.4	8.2	↓	(A) peristaltic pump w/ ded tubing
	915	16.51	1.5	6.54	21.6	2560	2.1	50.1	7.9		B) ded bladder pump
	917	16.51	2.0	6.53	21.7	2560	2.1	43.2	7.5		C) non-ded bladder pump; or
	920	16.51	2.5	6.52	21.7	2570	2.0	39.6	7.1		*Standard groundwater sample:*
	922	16.51	3.0	6.51	21.7	2580	2.0	36.4	6.7		D) bailer due to limited column; or
	925	16.51	3.5	6.50	21.8	2590	1.9	34.2	6.6		E) recovery well cycling sample
↓	927	16.51	4.0	6.50	21.7	2590	1.9	32.9	6.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10.6.20	930	MW-54A	16.51	6.50	21.7	2590	1.9	32.9	6.2	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-54B
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC ✓
Upright ✓	4-in __	SS __
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (214)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	940	NP	16.52	0.00	46.80	41.8	Yes	Yes	Yes	Yes		Weather: Clear, 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
			0.5								*Low-flow groundwater sample:*
			1.0								(A) peristaltic pump w/ ded tubing
			1.5								B) ded bladder pump
			2.0			Gauge	Only				C) non-ded bladder pump; or
			2.5								*Standard groundwater sample:*
			3.0								D) bailer due to limited column; or
			3.5								E) recovery well cycling sample
			4.0								F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
		MW-54B								Per COC	Per COC	Lab: Pace National, Mt. Juliet, TN

No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample

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Monitoring Well Purging and Sampling Record

+ DUP-NCL-01
+ Trip Blank-NCL-01 ✓

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: NCL-49
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade __	2-in ✓	PVC __
Upright ✓	4-in __	SS ✓
Vault __	Other __	Other __

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH (215)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	945	NP	19.62	0.00	32.18	27.2	Yes	Yes	Yes	Yes		Weather: Clear, 70's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	950	19.64	0.5	7.00	22.2	3530	2.5	68.9	8.1	Colorless; clear	*Low-flow groundwater sample:*
↓	952	19.64	1.0	6.93	22.0	3560	2.7	72.5	7.7	↓	(A) peristaltic pump w/ ded tubing
	955	19.64	1.5	6.90	21.9	3560	2.7	74.5	7.2		B) ded bladder pump
	957	19.64	2.0	6.89	21.9	3560	2.7	76.2	6.8		C) non-ded bladder pump; or
	1000	19.64	2.5	6.88	21.8	3560	2.6	78.1	6.6		*Standard groundwater sample:*
	1002	19.64	3.0	6.88	21.8	3570	2.6	79.9	6.4		D) bailer due to limited column; or
	1005	19.64	3.5	6.87	21.9	3570	2.6	80.6	5.6		E) recovery well cycling sample
↓	1007	19.64	4.0	6.87	21.9	3570	2.6	81.7	5.2	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments
												Lab: Pace National, Mt. Juliet, TN
10.6.20	1010	NCL-49	19.64	6.87	21.9	3570	2.6	81.7	5.2	Per COC	Per COC	
↓												
↓	1100	DUP-NCL-01	19.64	6.87	21.9	3570	2.6	81.7	5.2	Same	Same	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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(Replacement well for MW-53, that was destroyed by construction activities)

-SCH to remove all ref. to MW-53, after 2H20

Monitoring Well Purging and Sampling Record

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Well: MW-53R
Event: 2H20
Area of Concern: NCL

Completion	Casing Diam.	Casing Material
At-Grade ✓	2-in ✓	PVC ✓
Upright __	4-in __	SS __
Vault __	Other __	Other __

* Located ~15.0' North of 70mi marker off HWY 285 northbound.

Hydrologic Monitoring
for TRC
Houston, Texas

Initials: CJH

(216)

Well Inspection Information

Date	Time	Depth to LNAPL (Ft-TOC)	Depth to Water (Ft-TOC)	LNAPL Thickness (Ft)	Well Total Depth (Ft-TOC)	Sample Intake (Ft-TOC)	Well Inspection					Comments
							Cap	Casing	Well Secured	Label	Other	
10.6.20	825	NP	14.56	0.00	24.05	19.1	Yes	Yes	Yes	Yes		Weather: Clear, 60's

Well Purging Record

Date	Time	Depth to Water (Ft-TOC)	Cum. Vol. Purged (L)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Water Color / Clarity	
10.6.20	830	14.77	0.5	6.84	21.2	2240	3.2	61.1	16.1	Clear; colorless	*Low-flow groundwater sample:*
↓	832	14.85	1.0	6.85	21.4	2260	3.0	64.0	15.0	↓	(A) peristaltic pump w/ ded tubing
↓	835	14.90	1.5	6.85	21.5	2250	2.8	65.7	12.2	↓	B) ded bladder pump
↓	837	14.95	2.0	6.86	21.6	2240	2.7	67.4	9.9	↓	C) non-ded bladder pump; or
↓	840	14.99	2.5	6.86	21.6	2220	2.8	68.4	9.4	↓	*Standard groundwater sample:*
↓	842	15.03	3.0	6.87	21.6	2210	2.8	69.1	8.9	↓	D) bailer due to limited column; or
↓	845	15.07	3.5	6.87	21.7	2200	2.9	70.6	8.5	↓	E) recovery well cycling sample
↓	847	15.11	4.0	6.88	21.7	2190	2.9	71.4	8.0	↓	F) irrigation well grab sample

Well Sampling Record

Date	Time	Sample I.D.	Depth to Water (Ft-TOC)	pH (std units)	T (C)	SC (umho/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction-Potential (mV)	Turbidity (NTU)	Parameter	Preserv	Comments Lab: Pace National, Mt. Juliet, TN
10.6.20	850	MW-53R	15.11	6.88	21.7	2190	2.9	71.4	8.0	Per COC	Per COC	
			No groundwater sample collected if LNAPL thickness is greater than, or equal to 0.03'; if LNAPL thickness is measured at 0.01' or 0.02', remove LNAPL, and collect groundwater sample									

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Instrument Calibration Log

Navajo Refining Company
Artesia Refinery
Artesia, New Mexico

Hydrologic Monitoring
for TRC
Houston, Texas

Date	Time	pH Hanna (Std. units)	Specific Conductivity Hanna (umho/cm)	Dissolved Oxygen Hanna (Slope Cal. in saturated air)	Turbidity Lamotte (NTU)	ORP Hanna HI 7020 Soln (200-275 mV)	PID Thermo Environmental 100 ppm Isobutylene	Initials / Comments
10/6/20	6:40	4.01 / 7.00	1,000	100 %	10.0	242.1	NA	SCH
10-6-20	6:45	4.01/7.00	1,000	100%	10.0	238.7	NA	BRH
10-6-20	6:47	4.01/7.00	1,000	100%	10.0	248.2	NA	TAB
10/6/20	652	4.01 / 7.00	1,000	100 %	10.0	244.1	NA	GDS
10-6-20	655	4.01 / 7.00	1,000	100 %	10.0	212.9	NA	RSM
10-6-20	657	4.01/7.00	1,000	100%	10.0	221.6	NA	OJD
10/6/20	700	4.01/7.00	1,000	100%	10.0	243.7	NA	BJ
10-6-20	702	4.01 / 7.00	1,000	100%	10.0	239.8	NA	MDB
10.6.20	705	4.01/7.00	1,000	100%	10.0	231.0	NA	CJH
10-6-20	708	4.01/7.00	1,000	100%	10.0	239.8	NA	SCD
10/7/20	6:40	4.01/7.00	1,000	100%	10.0	240.9	NA	SCH
10-7-20	642	4.01 / 7.00	1,000	100%	10.0	248.2	NA	MDB
10-7-20	645	4.01/7.00	1,000	100%	10.0	252.2	NA	TAB
10-7-20	648	4.01/7.00	1,000	100%	10.0	239.2	NA	BRH
10-7-20	650	4.01/7.00	1,000	100%	10.0	218.6	NA	OJD
10-7-20	652	4.01 / 7.00	1,000	100%	10.0	213.7	NA	RSM
10-7-20	655	4.01/7.00	1,000	100%	10.0	236.5	NA	SCD
10.7.20	657	4.01/7.00	1,000	100%	10.0	226.4	NA	CJH
10/7/20	701	4.01/7.00	1,000	100 %	10.0	237.1	NA	GDS
10/7/20	705	4.01/7.00	1,000	100 %	10.0	252.3	NA	BJ

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TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: New Wells - Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-Artesia New Wells

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # (Navajo - Artesia)

P.O. # 150726

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-145	Grab	GW		10/6/20	1130	2	x											-01
MW-146	Grab	GW			1100	2	x											-02
MW-147	Grab	GW			1020	2	x											-03
MW-148	Grab	GW			940	2	x											-04
Dup-01	Grab	GW			1000	2	x											-05
EB-01	Grab	GW			1135	2	x											-06
	Grab	GW																
	Grab	GW																
	Grab	GW																

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical*
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271213

Tabl J030

Acctnum: TRCATX

Template: T140422

Prelogin:

TSR:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater

Remarks: Samples returned via FedEx

pH ____ Temp ____

Flow ____ Other ____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N

Relinquished by: (Signature) Scott Ude
Date: 10/7/20
Time: 1400

Received by: (Signature) Olivia Terry
10/8/20
980

1.1-.2-9 HW A3

9159 8784 5580

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: TEL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-TEL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # TEL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
TEL-4	Grab	GW		10/6/20	955	9	x	x	x	x	x	x	x					-01
TEL-3	Grab	GW		10/6/20	845	9	x	x	x	x	x	x	x					02
~~TEL-2~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~03~~
~~TEL-1~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~04~~
MW-49	Grab	GW		10/6/20	1300	10	x	x	x		x	x	x	x	x		SU	03
DUP-TEL-01	Grab	GW		10/6/20	1100	11	x	x	x	x	x	x	x			x		04
EB-TEL-01	Grab	GW		10/6/20	910	9	x	x	x	x	x	x	x					05
Trip Blank-TEL-01	Grab	GW		10/6/20	—	1	x											06

Chain of Custody Page 1 of 1

9.18/19

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 171283

Table # 1191

Acctnum: TRCATX

Template: T115528

Prelogin: P799955

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=9 °C Bottles Received: 46	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: NCL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-NCL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # NCL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271284
Table #1192
Acctnum: TRCATX
Template: T140423
Prelogin: P799954
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	EDB - 8011	Remarks	Sample # (lab only)
MW-45	Grab	GW		10/6/20	1610	8	x	x			x	x	x	x	x			-01
~~NCL-34A~~ LNAPL	Grab	GW				7	x	x		x	x	x	x					-02
NCL-33	Grab	GW		10/7/20	1030	7	x	x		x	x	x	x					-03
NCL-44	Grab	GW		10/7/20	950	7	x	x		x	x	x	x					-04
NCL-32	Grab	GW		10/7/20	905	7	x	x		x	x	x	x					-05
MW-108	Grab	GW		10/6/20	1410	10	x	x		x	x	x	x			x	54	-06
NCL-31	Grab	GW		10/6/20	1325	7	x	x		x	x	x	x					-07
MW-55	Grab	GW		10/7/20	825	10	x	x	x		x	x	x	x	x			-08
MW-54A	Grab	GW		10/6/20	930	7	x	x		x	x	x	x					-09
NCL-49	Grab	GW		10/6/20	1010	7	x	x		x	x	x	x					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received: 91
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tirres	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: NCL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-NCL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # NCL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
DUP-NCL-01	Grab	GW		10/6/20	1100	7	x	x		x	x	x	x					-11
EB-NCL-01	Grab	GW		10/7/20	915	7	x	x		x	x	x	x					-12
TRIP BLANK-NCL-01	Grab	GW		10/6/20	—	1	x											-13
MW-53R	Grab	GW		10/6/20	850	7	X	X		X	X	X	X					-14

Chain of Custody Page 2 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L211284

Table #

Acctnum: TRCATX

Template: T140423

Prelogin: P799954

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1, 2.9 °C Bottles Received: 9 1	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuce	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

Page 719 of 2498

Hailey Melson

Pace Analytical®
National Center for Testing & Innovation

Login #: L1271284	Client: TRCATX	Date: 10/08/2020	Evaluated by: Olivia S.

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

Did not receive SVOC vials for MW-108

Client informed by:		Call		Email		Voice Mail		Date: 10/9/20	Time: 18:07
TSR Initials: CM	Client Contact:								

Login Instructions:

SV8011 not needed on MW-108.

Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com	Pres Chk
Report to: Julie Speer	Email To: jspeer@trccompanies.com	
Project Description: TMD Fall 2020	City/State Collected: Artesia, NM	
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000	Lab Project # TRCATX-TMD
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # TMD (Navajo - Artesia)	P.O. # 150726
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y X	*Rush?* (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed	Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
NP-1	Grab	GW		10/6/20	1415	2	x											
MW-21	Grab	GW		10/6/20	1545	9	x	x	x	x	x	x	x					-01
MW-46R	Grab	GW		10/7/20	940	7	x	x		x	x	x	x					-02
TRIP BLANK-TMD-01	Grab	GW		10/6/20	—	1	x											

Chain of Custody Page 1 of 1 — p-19/19

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Fax: 615-758-5859

L# L1271297

H133

Acctnum: TRCATX
Template: T115542
Prelogin: P799956
TSR: 526
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1 1.2 -1.3 °C Bottles Received: 16	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuen	Date: 10/8/20 Time: 900	Hold: Condition: NCF OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 5

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Phone: 800-767-5859
Fax: 615-758-5859

L# L127298

Table #

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
~~MW-85~~ LNAPL	~~Grab~~	~~GW~~				~~9~~	x	x	x	x	x	x	x					-01
MW-86	Grab	GW		10/6/20	1635	10	x	x	x		x	x	x	x	x			-02
MW-120	Grab	GW			900	9	x	x	x	x	x	x	x					-03
MW-121	Grab	GW			940	9	x	x	x	x	x	x	x					-04
MW-84	Grab	GW			1550	9	x	x	x	x	x	x	x					-05
MW-122	Grab	GW			1115	9	x	x	x	x	x	x	x					-06
MW-79	Grab	GW			1030	9	x	x	x	x	x	x	x					-07
MW-74	Grab	GW			1435	9	x	x	x	x	x	x	x					-08
MW-2A	Grab	GW			1155	9	x	x	x	x	x	x	x					-09
OCD-6	Grab	GW			1250	9	x	x	x	x	x	x	x					-10

-01 -02 -03 -04 -05 -06 -07 -08 -09

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tires	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
OCD-7AR	Grab	GW		10/6/20	1330	9	X	X	X	X	X	X	X					-10
MW-76	Grab	GW		10/6/20	1720	9	X	X	X	X	X	X	X					-11
MW-75	Grab	GW		10/6/20	1625	9	X	X	X	X	X	X	X					-12
MW-83	Grab	GW		10/7/20	845	9	X	X	X	X	X	X	X					-13
MW-3	Grab	GW		10/7/20	930	9	X	X	X	X	X	X	X					-14
MW-88	Grab	GW		10/6/20	1255	7	X	X	X	X								-15
MW-22A	Grab	GW		10/6/20	1340	9	X	X	X	X	X	X	X					-16
MW-10	Grab	GW		10/6/20	1445	9	X	X	X	X	X	X	X					-17
MW-123	Grab	GW		10/6/20	1530	9	X	X	X	X	X	X	X					-18
MW-4A	Grab	GW		10/6/20	1200	9	X	X	X	X	X	X	X					-19

Analysis / Container / Preservative

Chain of Custody Page 2 of 5

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National Center for Testing & Innovation

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L #

Table # U271298

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=.9 Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuer	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 5

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L #

Table # 127298

Acctnum: TRCATX
Template: T140422
Prelogin: P799953
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-5A	Grab	GW		10/6/20	1050	9	x	x	x	x	x	x	x					-20
MW-7A	Grab	GW		10/6/20	940	9	x	x	x	x	x	x	x					-21
OCD-8A	Grab	GW		10/6/20	840	10	x	x	x		x	x	x	x	x			-22
OCD-1R	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x					-23
OCD-2A	Grab	GW		10/7/20	830	7	x	x	x	x								-24
OCD-3	Grab	GW		10/6/20	1640	7	x	x	x	x								-25
OCD-4	Grab	GW		10/6/20	1600	7	x	x	x	x								-26
MW-11A	Grab	GW		10/7/20	915	3					x	x	x					-27
OCD-5	Grab	GW		10/6/20	1520	9	x	x	x	x	x	x	x					-28
MW-87	Grab	GW		10/6/20	1150	7	x	x	x	x								-29

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received: 326	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuell	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 5

Pace Analytical
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L #

Table # U271298

Acctnum: TRCATX
Template: T140422
Prelogin: P799953
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-18A	Grab	GW		10/6/20	1230	8	x	x			x	x	x	x	x			-30
MW-70	Grab	GW		10/6/20	1320	7	x	x	x	x								-31
MW-124	Grab	GW		10/6/20	1405	9	x	x	x	x	x	x	x					-32
DUP-EP-01	Grab	GW		10/6/20	900	9	x	x	x	x	x	x	x					-33
DUP-EP-02	Grab	GW		10/6/20	1100	9	x	x	x	x	x	x	x					-34
DUP-EP-03	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x					-35
EB-EP-01	Grab	GW		10/6/20	1450	9	x	x	x	x	x	x	x					-36
EB-EP-02	Grab	GW		10/6/20	1420	9	x	x	x	x	x	x	x					-37
EB-EP-03	Grab	GW		10/6/20	1110	9	x	x	x	x	x	x	x					-38
EB-EP-04	Grab	GW		10/6/20	1045	9	x	x	x	x	x	x	x					-39

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=.9 °C Bottles Received: 326	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tirey	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
Trip Blank-EP-01	Grab	GW		10/6/20	—	1										x		-40
Trip Blank-EP-02	Grab	GW		10/6/20	—	1										x		-41
Trip Blank-EP-03	Grab	GW		10/7/20	—	1										x		

Chain of Custody Page 5 of 5

p-15/19

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National Center for Testing & Innovation

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L #

Table # U277298

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH TBR)
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3 °C Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuce	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Page 726 of 2498

Hailey Melson

Pace Analytical®
National Center for Testing & Innovation

Login #: L1271298	Client: TRCATX	Date: 10/08/2020	Evaluated by: Olivia S.

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
x	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

Received 1 Blue top vial broken for MW-87

Client informed by:	Call	Email	Voice Mail	Date: 10/09/20	Time: 18:08
TSR Initials: CM	Client Contact:				

Login Instructions:

Run from intact vials.

Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer
Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020
City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000
Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team
Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 10

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Phone: 800-767-5859
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P. 1/19

L# L1271301
J031

Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3 <2	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4 <2	Total Long List Metals 250mlHDPE-HNO3 <2	Cyanide - 250mlHDPEAmb-NaOH >12	Remarks	Sample # (lab only)
~~MW-48 LNAPL~~	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x				
MW-130	Grab	GW		10/7/20	855	9	x	x	x	x	x	x	x				-01
~~KWB-4 LNAPL~~	~~Grab~~	~~GW~~				7	x	x		x	x	x	x				
MW-52	Grab	GW		10/7/20	940	10	x	x	x		x	x	x	x	x		-02
MW-109	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x				-03
MW-110	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x				-04
• MW-113	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x				~~-05~~
• KWB-8	Grab	GW		10/6/20	1250	8	x	x			x	x	x	x	x		~~-06~~
~~MW-133 LNAPL~~	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x				
MW-134	Grab	GW		10/6/20	1630	9	x	x	x	x	x	x	x				~~-09~~ -05

#6

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS ✓FedEx __Courier ____

Tracking # attached

Sample Receipt Checklist
COC Seal Present/Intact: ___Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-.2=.9 °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com
Report to: Julie Speer	Email To: jspeer@trccompanies.com
Project Description: REST Fall 2020	City/State Collected: Artesia, NM
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000
Lab Project # TRCATX-REST	
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726	
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y X	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed
Quote #	

Analysis / Container / Preservative

Chain of Custody Page 2 of 10

Pace Analytical®

p. 2/19

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	Remarks	Sample # (lab only)
RA-4798	Grab	GW		10/6/20	1315	5	x				x	x	x				-06
RA-4196	Grab	GW		10/6/20	1330	5	x				x	x	x				-09
KWB-7	Grab	GW		10/6/20	1200	8	x	x			x	x	x	x	x		-10
MW-135	Grab	GW		10/7/20	1030	9	x	x	x	x	x	x	x				-11
KWB-11A	Grab	GW		10/6/20	1025	10	x	x	x		x	x	x	x	x		-12
KWB-11B	Grab	GW		10/6/20	1110	10	x	x	x		x	x	x	x	x		-15
MW-115	Grab	GW		10/7/20	915	9	x	x	x	x	x	x	x			-06	-14
MW-114	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x			-07	-15
MW-117	Grab	GW		10/6/20	1420	9	x	x	x	x	x	x	x			-08	-16
MW-118	Grab	GW		10/6/20	1335	9	x	x	x	x	x	x	x			-09	-17

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other_____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist:
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by: (Signature) Scott Ude	Date: 10/7/20	Time: 1400	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 3 of 10

Pace Analytical®

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
MW-119	Grab	GW		10/6/20	920	9	x	x	x	x	x	x	x					~~-10~~
MW-136	Grab	GW		10/6/20	1220	10	x	x	x		x	x	x	x	x			~~-11~~
MW-126A	Grab	GW		10/6/20	1010	9	x	x	x	x	x	x	x					~~-12~~
MW-126B	Grab	GW		10/6/20	1050	9	x	x	x	x	x	x	x					~~-13~~
~~MW-127~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~-14~~
KWB-1A	Grab	GW		10/6/20	1325	8	x	x			x	x	x	x	x		-14	~~-15~~
~~KWB-10R~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-131~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
~~KWB-5~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-111~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					

KB

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 2°C Bottles Received
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com
Report to: Julie Speer	Email To: jspeer@trccompanies.com
Project Description: REST Fall 2020	City/State Collected: Artesia, NM
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # REST (Navajo - Artesia)
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y X	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed
	Lab Project # TRCATX-REST
	P.O. # 150726
	Quote #

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 4 of 10

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	EDB 8011	Remarks	Sample # (lab only)
~~KWB-6~~ LNAPL	~~Grab~~	~~GW~~				10	x	x		x	x	x	x			x		
~~MW-112~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
~~MW-132~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-57	Grab	GW		10/6/20	1130	9	x	x	x	x	x	x	x				-15	~~-23~~
KWB-12A	Grab	GW		10/6/20	930	10	x	x	x		x	x	x	x	x		-16	~~-24~~
KWB-12B	Grab	GW		10/6/20	1015	10	x	x	x		x	x	x	x	x		-17	~~-25~~
~~KWB-2R~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-58~~ LNAPL	~~Grab~~	~~GW~~				8	x	x			x	x	x	x	x			
MW-104	Grab	GW		10/6/20	1210	9	x	x	x	x	x	x	x				-18	~~-26~~
MW-64	Grab	GW		10/6/20	1305	9	x	x	x	x	x	x	x				-19	~~-27~~

KB

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature) Scott Ude	Date: 10/7/20	Time: 1400	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-1.2-1.9 Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

Chain of Custody Page 5 of 10

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com
Report to: Julie Speer	Email To: jspeer@trccompanies.com
Project Description: REST Fall 2020	City/State Collected: Artesia, NM
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000
	Lab Project # TRCATX-REST
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # REST (Navajo - Artesia)
	P.O. # 150726
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y X	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed
	Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	Remarks	Sample # (lab only)
~~MW-65~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x				
MW-102	Grab	GW		10/6/20	1410	9	x	x	x	x	x	x	x			-20	~~-28~~
~~MW-99~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x				
MW-66	Grab	GW		10/7/20	925	10	x	x	x		x	x	x	x	x	-21	~~-29~~
MW-28	Grab	GW		↓	1110	10	x	x	x		x	x	x	x	x	-22	~~-30~~
MW-60	Grab	GW		↓	1025	10	x	x	x		x	x	x	x	x	-23	~~-31~~
~~MW-128~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x				
MW-125	Grab	GW		10/7/20	1050	9	x	x	x	x	x	x	x			-24	~~-32~~
MW-116	Grab	GW		10/7/20	1025	9	x	x	x	x	x	x	x			-25	~~-33~~
MW-101	Grab	GW		10/6/20	900	9	x	x	x	x	x	x	x			-26	~~-34~~

10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

Chain of Custody — Page 5 of 10 — P 6119

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Remarks	Sample # (lab only)
SU -27	-35
-28	-36
-29	-37
-30	-38
-31	-39
-32	-40
-33	-41
-33 -34 -42	

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270
MW-105	Grab	GW		10/6/20	1515	9	x	x	x	x	x	x	x			
MW-61	Grab	GW		10/6/20	1335	11	x	x	x	x	x	x	x			x
MW-62	Grab	GW		10/6/20	1535	11	x	x	x	x	x	x	x			
~~MW-137~~ LNAPL	~~Grab~~	~~GW~~				12	x	x	x		x	x	x	x	x	x
~~MW-138~~ LNAPL	~~Grab~~	~~GW~~				12	x	x	x		x	x	x	x	x	x
MW-23	Grab	GW		10/6/20	1705	9	x	x	x	x	x	x	x			
MW-39	Grab	GW		10/6/20	1010	9	x	x	x	x	x	x	x			
MW-98	Grab	GW		10/6/20	1105	9	x	x	x	x	x	x	x			
MW-29	Grab	GW		10/7/20	925	9	x	x	x	x	x	x	x			
MW-106	Grab	GW		10/6/20	1200	9	x	x	x	x	x	x	x			

10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

Received by OCD: 6/23/2021 4:05:29 PM

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-50	Grab	GW		10/6/20	1125	7	x	x		x	x	x	x				-34	~~-43~~
~~MW-97~~ Lost due to construction	~~Grab~~	~~GW~~				11	x	x	x	x	x	x	x			x	unable to locate; construction, graded w/ extra soil/gravel	
~~MW-92~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					-
~~MW-91~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-90	Grab	GW		10/6/20	1245	9	x	x	x	x	x	x	x				-35	~~-44~~
MW-96	Grab	GW		10/6/20	1450	9	x	x	x	x	x	x	x				-36	~~-45~~
~~MW-94~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~-46~~ KO
~~MW-87~~ LNAPL	~~Grab~~	~~GW~~				10	x	x	x		x	x	x	x	x			
DUP-REST-01	Grab	GW		10/7/20	800	9	x	x	x	x	x	x	x					~~-46~~
DUP-REST-02	Grab	GW		10/6/20	1100	9	x	x	x	x	x	x	x				-37	~~-47~~

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Chain of Custody Page 1 of 10

p. 7/19

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.5°C Bottles Received: 1.1-2=.9
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900
				Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 8 of 10

P. 8/19

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
DUP-REST-03	Grab	GW		10/6/20	1200	9	x	x	x	x	x	x	x				-38	-48
DUP-REST-04	Grab	GW		10/7/20	800	10	x	x	x		x	x	x	x	x		-39	-49
DUP-REST-05	Grab	GW		10/6/20	1200	10	x	x	x		x	x	x	x	x		-40	-50
EB-REST-01	Grab	GW		10/7/20	920	9	x	x	x	x	x	x	x					-51
EB-REST-02	Grab	GW		10/6/20	1220	9	x	x	x	x	x	x	x				-41	-52
EB-REST-03	Grab	GW		10/6/20	1650	9	x	x	x	x	x	x	x				-42	-53
EB-REST-04	Grab	GW		10/7/20	1045	10	x	x	x		x	x	x	x	x		-43	-54
EB-REST-05	Grab	GW		10/6/20	1035	10	x	x	x		x	x	x	x	x		-44	-55
TRIP BLANK-REST-01	Grab	GW		10/6/20	—	1	x											-45
TRIP BLANK-REST-02	Grab	GW		10/6/20	—	1	x											-46

40

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 9 of 10

p. 9/19

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140422

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
TRIP BLANK-REST-03	Grab	GW		10/7/20	—	1	x											-47
TRIP BLANK-REST-04	Grab	GW		10/6/20	—	1	x											-48

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __ NA __ Y __ N
COC Signed/Accurate: __ Y __ N
Bottles arrive intact: __ Y __ N
Correct bottles used: __ Y __ N
Sufficient volume sent: __ Y __ N
If Applicable
VOA Zero Headspace: __ Y __ N
Preservation Correct/Checked: __ Y __ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1 °C Bottles Received:
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900
				Hold: Condition: NCF / OK

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com	Pres Chk
Report to: Julie Speer	Email To: jspeer@trccompanies.com	
Project Description: REST Fall 2020	City/State Collected: Artesia, NM	
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000	Lab Project # TRCATX-REST
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # REST (Navajo - Artesia)	P.O. # 150726
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y x	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed	Quote #

Chain of Custody Page 1 of 1 — P. 10/19

Pace Analytical

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140422

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-43	Grab	GW		10/6/20	1510	10	x	x	x		x	x	x	x	x			-48
MW-62R	Grab	GW		10/6/20	1620	9	x	x	x	x	x	x	x					-50
~~MW-137A~~ LNAPL	~~Grab~~	~~GW~~				12	x	x	x		x	x	x	x	x	x		
~~MW-138A~~ LNAPL	~~Grab~~	~~GW~~				12	x	x	x		x	x	x	x	x	x		
MW-139	Grab	GW		10/6/20	1055	9	x	x	x	x	x	x	x					-51
~~RW-2~~ LNAPL	~~Grab~~	~~GW~~														X		
	Grab	GW																
	Grab	GW																
	Grab	GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater

Remarks: Samples returned via FedEx

pH ____ Temp ____

Flow ____ Other ____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N

Relinquished by: (Signature) Scott Ude — Date: 10/7/20 — Time: 1400

Received by: (Signature) — 10/8/20 0900

1.1-.2=.9 WS

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L127(301

)9159 8784 5733 1.5
- 5810 1.3
- 5939 1.2
- 5744 1.8
- 5940 4.1
- 8206 1.4
- 5825 0.9
- 5803 1.1
- 5814 .4
- 5880 1.2
- 5799 1.3
- 9863 3.0
2.4

(1)9186 2502 9749

5906 4.5
5722 1.6
5891 0.7°C
~~905~~ 7986 0.9°C
9874 1.0°C

TRCATX
for 10/8

Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 29, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1230655
Samples Received:	06/18/2020
Project Number:	330538.0000.0000
Description:	NCL Spring 2020
Site:	NCL (NAVAJO-ARTESIA)
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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MW-56 L1230655-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 11:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495936	1	06/19/20 21:38	06/20/20 06:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	1	06/25/20 17:08	06/25/20 17:08	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/23/20 20:00	06/23/20 20:00	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	50	06/23/20 20:30	06/23/20 20:30	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 16:57	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495377	1	06/24/20 14:25	06/26/20 00:47	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 15:48	06/20/20 15:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 21:22	CAG	Mt. Juliet, TN

MW-55 L1230655-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:40
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495936	1	06/19/20 21:38	06/20/20 06:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	1	06/25/20 17:09	06/25/20 17:09	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:17	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/23/20 20:45	06/23/20 20:45	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	50	06/23/20 21:00	06/23/20 21:00	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1494969	1	06/18/20 20:00	06/19/20 10:03	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:48	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:21	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495364	1	06/23/20 10:16	06/23/20 13:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:00	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/26/20 13:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495377	1	06/24/20 14:25	06/26/20 00:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496473	1	06/21/20 19:30	06/21/20 19:30	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 16:09	06/20/20 16:09	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499276	10	06/25/20 17:23	06/25/20 17:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 21:48	CAG	Mt. Juliet, TN

MW-54A L1230655-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:55
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495936	1	06/19/20 21:38	06/20/20 06:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	1	06/25/20 17:15	06/25/20 17:15	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/23/20 21:14	06/23/20 21:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	20	06/23/20 21:29	06/23/20 21:29	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:03	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495377	1	06/24/20 14:25	06/26/20 00:54	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 16:29	06/20/20 16:29	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499276	1	06/25/20 17:03	06/25/20 17:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 22:13	CAG	Mt. Juliet, TN

NCL-49 L1230655-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:45
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495936	1	06/19/20 21:38	06/20/20 06:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	2	06/25/20 17:18	06/25/20 17:18	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 10:14	06/24/20 10:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/23/20 22:29	06/23/20 22:29	ELN	Mt. Juliet, TN

NCL-49 L1230655-04 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/16/20 10:45	06/18/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:07	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495377	1	06/24/20 14:25	06/26/20 00:57	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 16:50	06/20/20 16:50	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 22:39	CAG	Mt. Juliet, TN

DUP-NCL-01 L1230655-05 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/16/20 10:00	06/18/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495936	1	06/19/20 21:38	06/20/20 06:05	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	5	06/25/20 17:35	06/25/20 17:35	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 10:28	06/24/20 10:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/23/20 22:59	06/23/20 22:59	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:25	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495377	1	06/24/20 14:25	06/26/20 01:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 17:10	06/20/20 17:10	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 23:05	CAG	Mt. Juliet, TN

TRIP BLANK-NCL-01 L1230655-06 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/16/20 00:00	06/18/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496260	1	06/20/20 14:46	06/20/20 14:46	ACG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3520		14.1	50.0	1	06/20/2020 06:05	WG1495936

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 17:08	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	219		19.0	50.0	50	06/23/2020 20:30	WG1497346
Fluoride	1.08		0.0640	0.150	1	06/23/2020 20:00	WG1497346
Sulfate	1990		29.7	250	50	06/23/2020 20:30	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00529		0.000735	0.00200	1	06/26/2020 00:47	WG1495377
Arsenic,Dissolved	0.00665		0.000735	0.00200	1	06/25/2020 16:57	WG1495347
Barium	0.0104	J	0.00778	0.0200	1	06/26/2020 00:47	WG1495377
Barium,Dissolved	0.0113	J	0.00778	0.0200	1	06/25/2020 16:57	WG1495347
Calcium	496		0.480	1.00	1	06/26/2020 00:47	WG1495377
Chromium	U		0.00149	0.00200	1	06/26/2020 00:47	WG1495377
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 16:57	WG1495347
Iron	U		0.0489	0.100	1	06/26/2020 00:47	WG1495377
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 16:57	WG1495347
Lead	U		0.00249	0.00500	1	06/26/2020 00:47	WG1495377
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 16:57	WG1495347
Manganese	0.302		0.00132	0.00500	1	06/26/2020 00:47	WG1495377
Manganese,Dissolved	0.342		0.00132	0.00500	1	06/25/2020 16:57	WG1495347
Potassium	1.70	J	0.534	2.00	1	06/26/2020 00:47	WG1495377
Selenium	0.000968	J	0.000657	0.00200	1	06/26/2020 00:47	WG1495377
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 16:57	WG1495347
Sodium	142		0.630	2.00	1	06/26/2020 00:47	WG1495377

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 15:48	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 15:48	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 15:48	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 15:48	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 15:48	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 15:48	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 15:48	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 15:48	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 15:48	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 15:48	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 15:48	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 15:48	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 15:48	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 15:48	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 15:48	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 15:48	WG1496260

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 15:48	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 15:48	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 15:48	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 15:48	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 15:48	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 15:48	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 15:48	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 15:48	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 15:48	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 15:48	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 15:48	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 15:48	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 15:48	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 15:48	WG1496260
Methyl tert-butyl ether	0.000339	J	0.000101	0.00100	1	06/20/2020 15:48	WG1496260
Naphthalene	U		0.00100	0.00500	1	06/20/2020 15:48	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 15:48	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 15:48	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 15:48	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 15:48	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 15:48	WG1496260
Toluene	U		0.000278	0.00100	1	06/20/2020 15:48	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 15:48	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 15:48	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 15:48	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 15:48	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 15:48	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 15:48	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 15:48	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 15:48	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 15:48	WG1496260
(S) Toluene-d8	*104*			*80.0-120*		*06/20/2020 15:48*	WG1496260
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/20/2020 15:48*	WG1496260
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*06/20/2020 15:48*	WG1496260

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.110		0.0247	0.100	1	06/24/2020 21:22	WG1496547
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/24/2020 21:22*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3480		14.1	50.0	1	06/20/2020 06:05	WG1495936

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0643	J	0.0500	0.100	1	06/25/2020 17:09	WG1495502

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:17	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	580		19.0	50.0	50	06/23/2020 21:00	WG1497346
Fluoride	1.55		0.0640	0.150	1	06/23/2020 20:45	WG1497346
Sulfate	1540		29.7	250	50	06/23/2020 21:00	WG1497346

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/19/2020 10:03	WG1494969
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:48	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.979		0.0254	0.200	1	06/23/2020 13:14	WG1495364
Boron,Dissolved	0.985		0.0254	0.200	1	06/25/2020 12:21	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00632		0.000735	0.00200	1	06/26/2020 00:50	WG1495377
Arsenic,Dissolved	0.00696		0.000735	0.00200	1	06/25/2020 17:00	WG1495347
Barium	0.0119	J	0.00778	0.0200	1	06/26/2020 00:50	WG1495377
Barium,Dissolved	0.0122	J	0.00778	0.0200	1	06/25/2020 17:00	WG1495347
Cadmium	U		0.000478	0.00100	1	06/26/2020 00:50	WG1495377
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 17:00	WG1495347
Calcium	410		0.480	1.00	1	06/26/2020 00:50	WG1495377
Chromium	U		0.00149	0.00200	1	06/26/2020 00:50	WG1495377
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:00	WG1495347
Cobalt	U		0.000477	0.00200	1	06/26/2020 00:50	WG1495377
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 17:00	WG1495347
Iron	U		0.0489	0.100	1	06/26/2020 00:50	WG1495377
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 17:00	WG1495347
Lead	U		0.00249	0.00500	1	06/26/2020 00:50	WG1495377
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:00	WG1495347
Manganese	0.148		0.00132	0.00500	1	06/26/2020 00:50	WG1495377
Manganese,Dissolved	0.166		0.00132	0.00500	1	06/25/2020 17:00	WG1495347
Nickel	0.00713		0.000952	0.00200	1	06/26/2020 00:50	WG1495377
Nickel,Dissolved	0.00645		0.000952	0.00200	1	06/26/2020 13:44	WG1495347

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.672	J	0.534	2.00	1	06/26/2020 00:50	WG1495377
Selenium	0.00121	J	0.000657	0.00200	1	06/26/2020 00:50	WG1495377
Selenium,Dissolved	0.000735	J	0.000657	0.00200	1	06/25/2020 17:00	WG1495347
Sodium	225		0.630	2.00	1	06/26/2020 00:50	WG1495377
Uranium	0.0549		0.00754	0.0200	1	06/26/2020 00:50	WG1495377
Uranium,Dissolved	0.0513		0.00754	0.0200	1	06/25/2020 17:00	WG1495347
Vanadium	0.0189		0.000986	0.00500	1	06/26/2020 00:50	WG1495377
Vanadium,Dissolved	0.0214		0.000986	0.00500	1	06/25/2020 17:00	WG1495347

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.140		0.0314	0.100	1	06/21/2020 19:30	WG1496473
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*78.0-120*		*06/21/2020 19:30*	WG1496473

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 16:09	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 16:09	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 16:09	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 16:09	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 16:09	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 16:09	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 16:09	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 16:09	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 16:09	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 16:09	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 16:09	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 16:09	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 16:09	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 16:09	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 16:09	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 16:09	WG1496260
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 16:09	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 16:09	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 16:09	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 16:09	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 16:09	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 16:09	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 16:09	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 16:09	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 16:09	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 16:09	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 16:09	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 16:09	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 16:09	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 16:09	WG1496260
Methyl tert-butyl ether	0.228		0.00101	0.0100	10	06/25/2020 17:23	WG1499276
Naphthalene	U		0.00100	0.00500	1	06/20/2020 16:09	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 16:09	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 16:09	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 16:09	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 16:09	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 16:09	WG1496260

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	06/20/2020 16:09	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 16:09	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 16:09	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 16:09	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 16:09	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 16:09	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 16:09	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 16:09	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 16:09	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 16:09	WG1496260
(S) Toluene-d8	*109*			*80.0-120*		*06/20/2020 16:09*	WG1496260
(S) Toluene-d8	*91.3*			*80.0-120*		*06/25/2020 17:23*	WG1499276
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/20/2020 16:09*	WG1496260
(S) 4-Bromofluorobenzene	*88.5*			*77.0-126*		*06/25/2020 17:23*	WG1499276
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/20/2020 16:09*	WG1496260
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/25/2020 17:23*	WG1499276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.950		0.0247	0.100	1	06/24/2020 21:48	WG1496547
(S) o-Terphenyl	*96.8*			*31.0-160*		*06/24/2020 21:48*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2030		7.05	25.0	1	06/20/2020 06:05	WG1495936

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 17:15	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	198		7.58	20.0	20	06/23/2020 21:29	WG1497346
Fluoride	0.809		0.0640	0.150	1	06/23/2020 21:14	WG1497346
Sulfate	838		11.9	100	20	06/23/2020 21:29	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00452		0.000735	0.00200	1	06/26/2020 00:54	WG1495377
Arsenic,Dissolved	0.00496		0.000735	0.00200	1	06/25/2020 17:03	WG1495347
Barium	0.0168	J	0.00778	0.0200	1	06/26/2020 00:54	WG1495377
Barium,Dissolved	0.0159	J	0.00778	0.0200	1	06/25/2020 17:03	WG1495347
Calcium	366		0.480	1.00	1	06/26/2020 00:54	WG1495377
Chromium	U		0.00149	0.00200	1	06/26/2020 00:54	WG1495377
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:03	WG1495347
Iron	0.188		0.0489	0.100	1	06/26/2020 00:54	WG1495377
Iron,Dissolved	0.0929	J	0.0489	0.100	1	06/25/2020 17:03	WG1495347
Lead	U		0.00249	0.00500	1	06/26/2020 00:54	WG1495377
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:03	WG1495347
Manganese	0.589		0.00132	0.00500	1	06/26/2020 00:54	WG1495377
Manganese,Dissolved	0.633		0.00132	0.00500	1	06/25/2020 17:03	WG1495347
Potassium	U		0.534	2.00	1	06/26/2020 00:54	WG1495377
Selenium	U		0.000657	0.00200	1	06/26/2020 00:54	WG1495377
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 17:03	WG1495347
Sodium	55.5		0.630	2.00	1	06/26/2020 00:54	WG1495377

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 16:29	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 16:29	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 16:29	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 16:29	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 16:29	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 16:29	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 16:29	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 16:29	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 16:29	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 16:29	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 16:29	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 16:29	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 16:29	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 16:29	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 16:29	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 16:29	WG1496260

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 16:29	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 16:29	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 16:29	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 16:29	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 16:29	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 16:29	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 16:29	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 16:29	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 16:29	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 16:29	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 16:29	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 16:29	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 16:29	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 16:29	WG1496260
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/25/2020 17:03	WG1499276
Naphthalene	U		0.00100	0.00500	1	06/20/2020 16:29	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 16:29	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 16:29	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 16:29	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 16:29	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 16:29	WG1496260
Toluene	U		0.000278	0.00100	1	06/20/2020 16:29	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 16:29	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 16:29	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 16:29	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 16:29	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 16:29	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 16:29	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 16:29	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 16:29	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 16:29	WG1496260
(S) Toluene-d8	*110*			*80.0-120*		*06/20/2020 16:29*	WG1496260
(S) Toluene-d8	*93.4*			*80.0-120*		*06/25/2020 17:03*	WG1499276
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/20/2020 16:29*	WG1496260
(S) 4-Bromofluorobenzene	*91.9*			*77.0-126*		*06/25/2020 17:03*	WG1499276
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/20/2020 16:29*	WG1496260
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/25/2020 17:03*	WG1499276

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.97		0.0247	0.100	1	06/24/2020 22:13	WG1496547
(S) o-Terphenyl	*105*			*31.0-160*		*06/24/2020 22:13*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3350		14.1	50.0	1	06/20/2020 06:05	WG1495936

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	9.98		0.100	0.200	2	06/25/2020 17:18	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	128		37.9	100	100	06/23/2020 22:29	WG1497346
Fluoride	0.609		0.0640	0.150	1	06/24/2020 10:14	WG1497346
Sulfate	1910		59.4	500	100	06/23/2020 22:29	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00135	J	0.000735	0.00200	1	06/26/2020 00:57	WG1495377
Arsenic,Dissolved	0.00149	J	0.000735	0.00200	1	06/25/2020 17:07	WG1495347
Barium	0.0145	J	0.00778	0.0200	1	06/26/2020 00:57	WG1495377
Barium,Dissolved	0.0135	J	0.00778	0.0200	1	06/25/2020 17:07	WG1495347
Calcium	486		0.480	1.00	1	06/26/2020 00:57	WG1495377
Chromium	U		0.00149	0.00200	1	06/26/2020 00:57	WG1495377
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:07	WG1495347
Iron	U		0.0489	0.100	1	06/26/2020 00:57	WG1495377
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 17:07	WG1495347
Lead	U		0.00249	0.00500	1	06/26/2020 00:57	WG1495377
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:07	WG1495347
Manganese	0.0222		0.00132	0.00500	1	06/26/2020 00:57	WG1495377
Manganese,Dissolved	0.00448	J	0.00132	0.00500	1	06/25/2020 17:07	WG1495347
Potassium	0.686	J	0.534	2.00	1	06/26/2020 00:57	WG1495377
Selenium	0.00832		0.000657	0.00200	1	06/26/2020 00:57	WG1495377
Selenium,Dissolved	0.00782		0.000657	0.00200	1	06/25/2020 17:07	WG1495347
Sodium	133		0.630	2.00	1	06/26/2020 00:57	WG1495377

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 16:50	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 16:50	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 16:50	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 16:50	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 16:50	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 16:50	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 16:50	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 16:50	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 16:50	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 16:50	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 16:50	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 16:50	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 16:50	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 16:50	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 16:50	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 16:50	WG1496260

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 16:50	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 16:50	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 16:50	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 16:50	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 16:50	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 16:50	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 16:50	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 16:50	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 16:50	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 16:50	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 16:50	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 16:50	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 16:50	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 16:50	WG1496260
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/20/2020 16:50	WG1496260
Naphthalene	U		0.00100	0.00500	1	06/20/2020 16:50	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 16:50	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 16:50	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 16:50	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 16:50	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 16:50	WG1496260
Toluene	U		0.000278	0.00100	1	06/20/2020 16:50	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 16:50	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 16:50	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 16:50	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 16:50	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 16:50	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 16:50	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 16:50	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 16:50	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 16:50	WG1496260
(S) Toluene-d8	*101*			*80.0-120*		*06/20/2020 16:50*	WG1496260
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/20/2020 16:50*	WG1496260
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/20/2020 16:50*	WG1496260

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0917	J	0.0247	0.100	1	06/24/2020 22:39	WG1496547
(S) o-Terphenyl	*76.8*			*31.0-160*		*06/24/2020 22:39*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3350		14.1	50.0	1	06/20/2020 06:05	WG1495936

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	9.95		0.250	0.500	5	06/25/2020 17:35	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	128		37.9	100	100	06/23/2020 22:59	WG1497346
Fluoride	0.613		0.0640	0.150	1	06/24/2020 10:28	WG1497346
Sulfate	1920		59.4	500	100	06/23/2020 22:59	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00123	J	0.000735	0.00200	1	06/26/2020 01:01	WG1495377
Arsenic,Dissolved	0.00165	J	0.000735	0.00200	1	06/25/2020 17:25	WG1495347
Barium	0.0126	J	0.00778	0.0200	1	06/26/2020 01:01	WG1495377
Barium,Dissolved	0.0138	J	0.00778	0.0200	1	06/25/2020 17:25	WG1495347
Calcium	472		0.480	1.00	1	06/26/2020 01:01	WG1495377
Chromium	U		0.00149	0.00200	1	06/26/2020 01:01	WG1495377
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:25	WG1495347
Iron	U		0.0489	0.100	1	06/26/2020 01:01	WG1495377
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 17:25	WG1495347
Lead	U		0.00249	0.00500	1	06/26/2020 01:01	WG1495377
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:25	WG1495347
Manganese	0.00204	J	0.00132	0.00500	1	06/26/2020 01:01	WG1495377
Manganese,Dissolved	0.00492	J	0.00132	0.00500	1	06/25/2020 17:25	WG1495347
Potassium	0.652	J	0.534	2.00	1	06/26/2020 01:01	WG1495377
Selenium	0.00717		0.000657	0.00200	1	06/26/2020 01:01	WG1495377
Selenium,Dissolved	0.00785		0.000657	0.00200	1	06/25/2020 17:25	WG1495347
Sodium	135		0.630	2.00	1	06/26/2020 01:01	WG1495377

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 17:10	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 17:10	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 17:10	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 17:10	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 17:10	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 17:10	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 17:10	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 17:10	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 17:10	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 17:10	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 17:10	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 17:10	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 17:10	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 17:10	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 17:10	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 17:10	WG1496260

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 17:10	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 17:10	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 17:10	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 17:10	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 17:10	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 17:10	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 17:10	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 17:10	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 17:10	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 17:10	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 17:10	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 17:10	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 17:10	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 17:10	WG1496260
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/20/2020 17:10	WG1496260
Naphthalene	U		0.00100	0.00500	1	06/20/2020 17:10	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 17:10	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 17:10	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 17:10	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 17:10	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 17:10	WG1496260
Toluene	U		0.000278	0.00100	1	06/20/2020 17:10	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 17:10	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 17:10	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 17:10	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 17:10	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 17:10	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 17:10	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 17:10	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 17:10	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 17:10	WG1496260
(S) Toluene-d8	*107*			*80.0-120*		*06/20/2020 17:10*	WG1496260
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/20/2020 17:10*	WG1496260
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/20/2020 17:10*	WG1496260

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0640	J	0.0247	0.100	1	06/24/2020 23:05	WG1496547
(S) o-Terphenyl	*80.0*			*31.0-160*		*06/24/2020 23:05*	WG1496547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/20/2020 14:46	WG1496260
Benzene	U		0.0000941	0.00100	1	06/20/2020 14:46	WG1496260
Bromodichloromethane	U		0.000136	0.00100	1	06/20/2020 14:46	WG1496260
Bromoform	U		0.000129	0.00100	1	06/20/2020 14:46	WG1496260
Bromomethane	U		0.000605	0.00500	1	06/20/2020 14:46	WG1496260
n-Butylbenzene	U		0.000157	0.00100	1	06/20/2020 14:46	WG1496260
sec-Butylbenzene	U		0.000125	0.00100	1	06/20/2020 14:46	WG1496260
Carbon disulfide	U		0.0000962	0.00100	1	06/20/2020 14:46	WG1496260
Carbon tetrachloride	U		0.000128	0.00100	1	06/20/2020 14:46	WG1496260
Chlorobenzene	U		0.000116	0.00100	1	06/20/2020 14:46	WG1496260
Chlorodibromomethane	U		0.000140	0.00100	1	06/20/2020 14:46	WG1496260
Chloroethane	U		0.000192	0.00500	1	06/20/2020 14:46	WG1496260
Chloroform	U		0.000111	0.00500	1	06/20/2020 14:46	WG1496260
Chloromethane	U		0.000960	0.00250	1	06/20/2020 14:46	WG1496260
1,2-Dibromoethane	U		0.000126	0.00100	1	06/20/2020 14:46	WG1496260
1,1-Dichloroethane	U		0.000100	0.00100	1	06/20/2020 14:46	WG1496260
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/20/2020 14:46	WG1496260
1,1-Dichloroethene	U		0.000188	0.00100	1	06/20/2020 14:46	WG1496260
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/20/2020 14:46	WG1496260
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/20/2020 14:46	WG1496260
1,2-Dichloropropane	U		0.000149	0.00100	1	06/20/2020 14:46	WG1496260
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/20/2020 14:46	WG1496260
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/20/2020 14:46	WG1496260
Ethylbenzene	U		0.000137	0.00100	1	06/20/2020 14:46	WG1496260
Isopropylbenzene	U		0.000105	0.00100	1	06/20/2020 14:46	WG1496260
p-Isopropyltoluene	U		0.000120	0.00100	1	06/20/2020 14:46	WG1496260
2-Butanone (MEK)	U		0.00119	0.0100	1	06/20/2020 14:46	WG1496260
2-Hexanone	U		0.000787	0.0100	1	06/20/2020 14:46	WG1496260
Methylene Chloride	U		0.000430	0.00500	1	06/20/2020 14:46	WG1496260
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/20/2020 14:46	WG1496260
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/20/2020 14:46	WG1496260
Naphthalene	U		0.00100	0.00500	1	06/20/2020 14:46	WG1496260
n-Propylbenzene	U		0.0000993	0.00100	1	06/20/2020 14:46	WG1496260
Styrene	U		0.000118	0.00100	1	06/20/2020 14:46	WG1496260
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/20/2020 14:46	WG1496260
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/20/2020 14:46	WG1496260
Tetrachloroethene	U		0.000300	0.00100	1	06/20/2020 14:46	WG1496260
Toluene	U		0.000278	0.00100	1	06/20/2020 14:46	WG1496260
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/20/2020 14:46	WG1496260
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/20/2020 14:46	WG1496260
Trichloroethene	U		0.000190	0.00100	1	06/20/2020 14:46	WG1496260
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/20/2020 14:46	WG1496260
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/20/2020 14:46	WG1496260
Vinyl chloride	U		0.000234	0.00100	1	06/20/2020 14:46	WG1496260
o-Xylene	U		0.000174	0.00100	1	06/20/2020 14:46	WG1496260
m&p-Xylene	U		0.000430	0.00200	1	06/20/2020 14:46	WG1496260
Xylenes, Total	U		0.000174	0.00300	1	06/20/2020 14:46	WG1496260
(S) Toluene-d8	*103*			*80.0-120*		*06/20/2020 14:46*	WG1496260
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/20/2020 14:46*	WG1496260
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/20/2020 14:46*	WG1496260

Method Blank (MB)

(MB) R3541555-1 06/20/20 06:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1229859-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1229859-01 06/20/20 06:05 • (DUP) R3541555-3 06/20/20 06:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	359	356	1	0.839		5

L1230665-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1230665-12 06/20/20 06:05 • (DUP) R3541555-4 06/20/20 06:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	936	940	1	0.426		5

Laboratory Control Sample (LCS)

(LCS) R3541555-2 06/20/20 06:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8780	99.8	85.0-115	

Method Blank (MB)

(MB) R3543078-1 06/25/20 16:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230655-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-03 06/25/20 17:15 • (DUP) R3543078-7 06/25/20 17:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543078-2 06/25/20 16:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.97	99.3	90.0-110	

L1230655-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230655-02 06/25/20 17:09 • (MS) R3543078-6 06/25/20 17:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.0643	2.82	110	1	90.0-110	

Method Blank (MB)

(MB) R3543143-1 06/25/20 22:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1230655-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-02 06/25/20 22:17 • (DUP) R3543143-3 06/25/20 22:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1230685-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-24 06/25/20 22:34 • (DUP) R3543143-6 06/25/20 22:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543143-2 06/25/20 22:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.103	103	90.0-110	

L1230685-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-02 06/25/20 22:25 • (MS) R3543143-4 06/25/20 22:26 • (MSD) R3543143-5 06/25/20 22:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0841	0.0852	84.1	85.2	1	75.0-125			1.30	20

L1230685-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-25 06/25/20 22:38 • (MS) R3543143-7 06/25/20 22:39 • (MSD) R3543143-8 06/25/20 22:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0877	0.0944	87.7	94.4	1	75.0-125			7.36	20

Method Blank (MB)

(MB) R3542446-1 06/23/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/23/20 23:14 • (DUP) R3542446-3 06/23/20 23:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	61.0	61.0	1	0.127		15
Fluoride	0.105	0.102	1	2.42	J	15

L1230678-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-06 06/24/20 02:58 • (DUP) R3542446-6 06/24/20 03:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/24/20 10:43 • (DUP) R3542446-8 06/24/20 11:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	156	154	5	1.33		15

Laboratory Control Sample (LCS)

(LCS) R3542446-2 06/23/20 19:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.0	97.6	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	39.7	99.3	80.0-120	

Received by OCD: 6/23/2021 4:05:29 PM

L1230674-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230674-02 06/23/20 23:44 • (MS) R3542446-4 06/23/20 23:59 • (MSD) R3542446-5 06/24/20 00:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	63.8	112	112	95.7	96.0	1	80.0-120	E	E	0.142	15
Fluoride	5.00	0.123	5.09	5.12	99.3	99.9	1	80.0-120			0.537	15
Sulfate	50.0	159	198	199	78.5	79.2	1	80.0-120	E J6	E J6	0.178	15

L1230681-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-21 06/24/20 03:28 • (MS) R3542446-7 06/24/20 03:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	50.0	99.9	1	80.0-120	
Fluoride	5.00	U	4.99	99.9	1	80.0-120	
Sulfate	50.0	U	50.4	101	1	80.0-120	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3540492-1 06/19/20 09:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3540492-2 06/19/20 09:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00299	99.5	80.0-120	

Method Blank (MB)

(MB) R3541143-1 06/21/20 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541143-2 06/21/20 20:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00335	112	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/21/20 20:38 • (MS) R3541143-3 06/21/20 20:40 • (MSD) R3541143-4 06/21/20 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00246	0.00247	82.0	82.2	1	75.0-125			0.166	20

Method Blank (MB)

(MB) R3542922-1 06/25/20 11:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542922-2 06/25/20 11:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	1.02	102	80.0-120	

L1230685-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-22 06/25/20 11:51 • (MS) R3542922-4 06/25/20 11:57 • (MSD) R3542922-5 06/25/20 12:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.184	1.21	1.22	103	103	1	75.0-125			0.380	20

Method Blank (MB)

(MB) R3541893-1 06/23/20 12:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3541893-2 06/23/20 12:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.983	98.3	80.0-120	

L1230522-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230522-01 06/23/20 12:41 • (MS) R3541893-4 06/23/20 12:46 • (MSD) R3541893-5 06/23/20 12:49

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.106	1.09	1.10	98.6	99.4	1	75.0-125			0.747	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543085-1 06/25/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Method Blank (MB)

(MB) R3543423-1 06/26/20 12:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel,Dissolved	U		0.000952	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543085-2 06/25/20 15:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0528	106	80.0-120	
Barium,Dissolved	0.0500	0.0494	98.9	80.0-120	
Cadmium,Dissolved	0.0500	0.0524	105	80.0-120	
Chromium,Dissolved	0.0500	0.0540	108	80.0-120	
Cobalt,Dissolved	0.0500	0.0536	107	80.0-120	
Iron,Dissolved	5.00	5.27	105	80.0-120	
Lead,Dissolved	0.0500	0.0466	93.1	80.0-120	
Manganese,Dissolved	0.0500	0.0520	104	80.0-120	
Selenium,Dissolved	0.0500	0.0513	103	80.0-120	
Uranium,Dissolved	0.0500	0.0454	90.9	80.0-120	
Vanadium,Dissolved	0.0500	0.0535	107	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3543423-2 06/26/20 12:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel,Dissolved	0.0500	0.0539	108	80.0-120	

L1230651-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230651-02 06/25/20 15:38 • (MS) R3543085-4 06/25/20 15:45 • (MSD) R3543085-5 06/25/20 15:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00381	0.0566	0.0569	106	106	1	75.0-125			0.468	20
Barium,Dissolved	0.0500	0.167	0.219	0.215	105	96.1	1	75.0-125			2.02	20
Cadmium,Dissolved	0.0500	U	0.0527	0.0537	105	107	1	75.0-125			1.96	20
Chromium,Dissolved	0.0500	U	0.0545	0.0541	109	108	1	75.0-125			0.715	20
Cobalt,Dissolved	0.0500	U	0.0531	0.0545	106	109	1	75.0-125			2.57	20
Iron,Dissolved	5.00	42.2	46.2	47.6	78.6	107	1	75.0-125			3.06	20
Lead,Dissolved	0.0500	U	0.0477	0.0470	95.4	94.0	1	75.0-125			1.50	20
Manganese,Dissolved	0.0500	4.48	4.41	4.50	0.000	40.3	1	75.0-125	V	V	2.09	20
Selenium,Dissolved	0.0500	U	0.0506	0.0523	101	105	1	75.0-125			3.32	20
Uranium,Dissolved	0.0500	U	0.0479	0.0465	95.7	93.1	1	75.0-125			2.81	20
Vanadium,Dissolved	0.0500	0.00124	0.0539	0.0555	105	109	1	75.0-125			2.99	20

Method Blank (MB)

(MB) R3543195-1 06/26/20 00:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543195-2 06/26/20 00:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0485	97.0	80.0-120	
Barium	0.0500	0.0512	102	80.0-120	
Cadmium	0.0500	0.0513	103	80.0-120	
Calcium	5.00	5.02	100	80.0-120	
Chromium	0.0500	0.0510	102	80.0-120	
Cobalt	0.0500	0.0497	99.4	80.0-120	
Iron	5.00	5.18	104	80.0-120	
Lead	0.0500	0.0510	102	80.0-120	
Manganese	0.0500	0.0498	99.6	80.0-120	
Nickel	0.0500	0.0510	102	80.0-120	
Potassium	5.00	4.92	98.5	80.0-120	
Selenium	0.0500	0.0516	103	80.0-120	
Sodium	5.00	4.71	94.2	80.0-120	
Uranium	0.0500	0.0494	98.8	80.0-120	
Vanadium	0.0500	0.0494	98.8	80.0-120	

Method Blank (MB)

(MB) R3542396-3 06/21/20 11:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542396-2 06/21/20 10:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.02	91.3	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/21/20 13:09 • (MS) R3542396-4 06/21/20 16:33 • (MSD) R3542396-5 06/21/20 16:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	U	3.21	3.35	58.4	60.9	1	10.0-160			4.27	22
(S) a,a,a-Trifluorotoluene(FID)					*99.2*	*99.2*		*78.0-120*				

Method Blank (MB)

(MB) R3543045-2 06/20/20 14:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543045-2 06/20/20 14:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543045-1 06/20/20 13:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0265	106	19.0-160	
Benzene	0.00500	0.00427	85.4	70.0-123	
Bromodichloromethane	0.00500	0.00475	95.0	75.0-120	
Bromoform	0.00500	0.00500	100	68.0-132	
Bromomethane	0.00500	0.00439	87.8	10.0-160	
n-Butylbenzene	0.00500	0.00442	88.4	73.0-125	
sec-Butylbenzene	0.00500	0.00484	96.8	75.0-125	
Carbon disulfide	0.00500	0.00465	93.0	61.0-128	
Carbon tetrachloride	0.00500	0.00489	97.8	68.0-126	
Chlorobenzene	0.00500	0.00480	96.0	80.0-121	
Chlorodibromomethane	0.00500	0.00555	111	77.0-125	
Chloroethane	0.00500	0.00457	91.4	47.0-150	
Chloroform	0.00500	0.00468	93.6	73.0-120	
Chloromethane	0.00500	0.00311	62.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00531	106	80.0-122	
1,1-Dichloroethane	0.00500	0.00454	90.8	70.0-126	
1,2-Dichloroethane	0.00500	0.00492	98.4	70.0-128	
1,1-Dichloroethene	0.00500	0.00459	91.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00491	98.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00467	93.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00394	78.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00451	90.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00495	99.0	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543045-1 06/20/20 13:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00479	95.8	79.0-123	
2-Hexanone	0.0250	0.0234	93.6	67.0-149	
Isopropylbenzene	0.00500	0.00473	94.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00484	96.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0221	88.4	44.0-160	
Methylene Chloride	0.00500	0.00480	96.0	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0207	82.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Naphthalene	0.00500	0.00627	125	54.0-135	
n-Propylbenzene	0.00500	0.00412	82.4	77.0-124	
Styrene	0.00500	0.00467	93.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00459	91.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00405	81.0	65.0-130	
Tetrachloroethene	0.00500	0.00511	102	72.0-132	
Toluene	0.00500	0.00463	92.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00513	103	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00458	91.6	80.0-120	
Trichloroethene	0.00500	0.00488	97.6	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00489	97.8	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00448	89.6	76.0-122	
Vinyl chloride	0.00500	0.00400	80.0	67.0-131	
Xylenes, Total	0.0150	0.0143	95.3	79.0-123	
o-Xylene	0.00500	0.00480	96.0	80.0-122	
m&p-Xylenes	0.0100	0.00946	94.6	80.0-122	
(S) Toluene-d8			*104*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3543112-3 06/25/20 11:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
(S) Toluene-d8	*95.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543112-1 06/25/20 10:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Methyl tert-butyl ether	0.00500	0.00545	109	68.0-125	
(S) Toluene-d8			*96.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*90.9*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*112*	*70.0-130*	

Method Blank (MB)

(MB) R3542707-1 06/24/20 20:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*85.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542707-2 06/24/20 20:30 • (LCSD) R3542707-3 06/24/20 20:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.51	1.55	101	103	50.0-150			2.61	20
(S) o-Terphenyl				*100*	*103*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

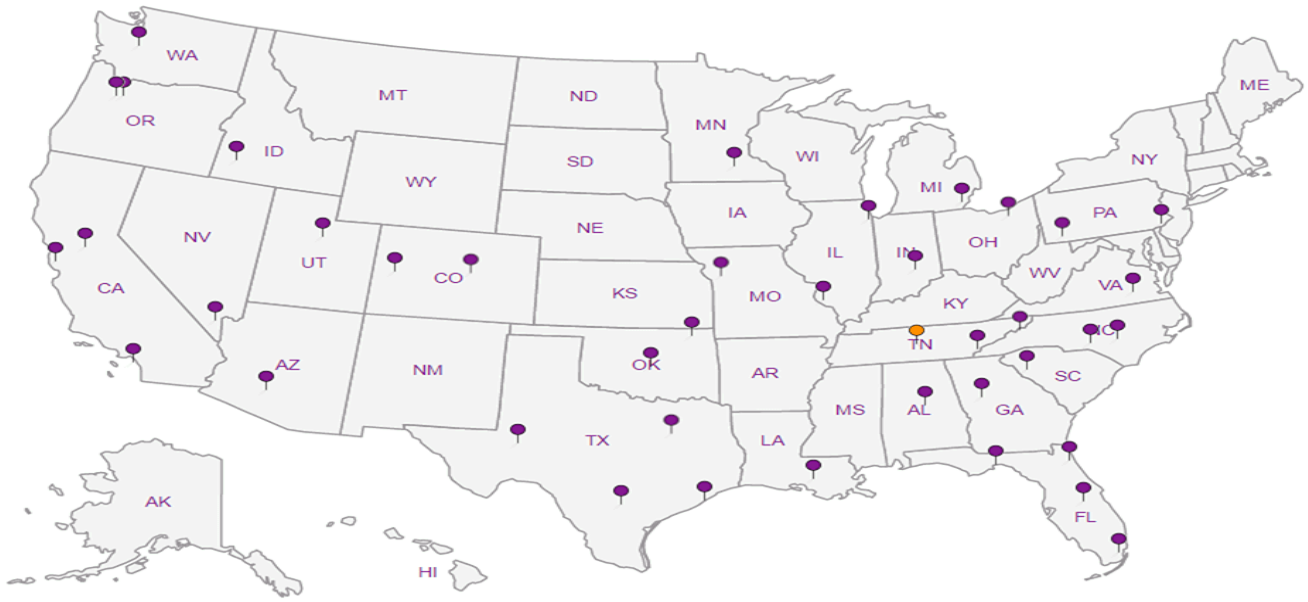
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

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Mount Juliet, TN 37122
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Phone: 800-767-5859
Fax: 615-758-5859

L# 1230655
1069

Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-56	Grab	GW		6/16/20	1125	8	X	X		X	X	X						01
MW-45	Grab	GW				9	X	X			X	X	X	X				
NCL-34A	Grab	GW				8	X	X		X	X	X						
NCL-33	Grab	GW				8	X	X		X	X	X						
NCL-44	Grab	GW				8	X	X		X	X	X						
NCL-32	Grab	GW				8	X	X		X	X	X						
MW-108	Grab	GW				8	X	X		X	X	X						
NCL-31	Grab	GW				8	X	X		X	X	X						
MW-55	Grab	GW		6/16/20	1040	11	X	X	X		X	X	X	X				02
MW-18	Grab	GW				9	X	X			X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓ __N
Bottles arrive intact: ✓ __N
Correct bottles used: ✓ __N
Sufficient volume sent: ✓ __N
If Applicable
VOA Zero Headspace: ✓ __N
Preservation Correct/Checked: ✓ __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800		✓	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.4/1.5 °C Bottles Received: 10-2=8	43+1TB HCl
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-54A	Grab	GW		6/16/20	955	8	X	X		X	X	X						03
NCL-49	Grab	GW		6/16/20	1045	8	X	X		X	X	X						04
~~MW-53~~	Grab	GW				8	X	X		X	X	X		missing due to construction				
DUP-NCL-01	Grab	GW		6/16/20	1000	8	X	X		X	X	X						05
EB-NCL-01	Grab	GW				8	X	X		X	X	X						
TRIP BLANK-NCL-01	Grab	GW		6/16/20	—	1	X											06

Chain of Custody Page 2 of 2

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 123065

Table #

Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y __N
COC Signed/Accurate: Y __N
Bottles Arrive Intact: Y __N
Correct bottles used: Y __N
Sufficient volume sent: Y __N
If Applicable
VOA Zero Headspace: __ __N
Preservation Correct/Checked: Y __N
N.D SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Scott Ude	6/17/20	0800		x1
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: IR#3 °C Bottles Received: 1.0-2=.8 43+1TB HCl
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845
				Hold: Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

123865

Tracking #	Corresponding Temp.
4492 6229 7130	1.0 - .2 = 0.8 MP A3
↓ 6230 6815	3.2 ± 0 = 3.2 HM A2
1203 5785 6018	1.8 ± 0 = 1.8 HM A2
1203 5786 0856	1.1 ± 0 = 1.1 HM A2
4492 6230 1310	0.9 ± 0 = 0.9
16635756 9559	1.1 ± 0 = 1.1
4492 6230 6859	0.4 ± 0 = 0.4
8098 2926 7587	1.7 ± 0 = 1.7
↓ ↓ 8790	1.1 ± 0 = 1.1
1203 5785 6030	1.3 ± 0 = 1.3
4492 6230 1331	0.4 ± 0 = 0.4
↓ ↓ 1309	2.3 ± 0 = 2.3
1663 5756 9560	3.0 ± 0 = 3.0
↓ ↓ 9570	0.6 ± 0 = 0.6
4492 6230 1310	0.7 ± 0 = 0.7

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 29, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1230678
Samples Received:	06/18/2020
Project Number:	330538.0000.0000
Description:	TEL Spring 2020
Site:	TEL - NAVAJO-ARTESIA
Report To:	Julie Speer 505 E. Huntland Dr, Ste 250 Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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Released to Imaging: 11/21/2023 10:16:55 AM

TEL-4 L1230678-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 12:55
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	10	06/25/20 17:36	06/25/20 17:36	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 11:58	06/24/20 11:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 00:44	06/24/20 00:44	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:29	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 11:29	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496338	5	06/21/20 06:15	06/21/20 06:15	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	5	06/21/20 06:41	06/21/20 06:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 23:31	CAG	Mt. Juliet, TN

TEL-2 L1230678-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 11:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	10	06/25/20 17:21	06/25/20 17:21	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 12:13	06/24/20 12:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 01:43	06/24/20 01:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:32	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 11:48	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	10	06/22/20 02:51	06/22/20 02:51	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	10	06/21/20 07:01	06/21/20 07:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	10	06/22/20 00:16	06/25/20 06:27	CAG	Mt. Juliet, TN

TEL-1 L1230678-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	10	06/25/20 17:23	06/25/20 17:23	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 12:28	06/24/20 12:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	20	06/24/20 01:58	06/24/20 01:58	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:35	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 11:51	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	10	06/22/20 03:11	06/22/20 03:11	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 02:18	06/21/20 02:18	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	10	06/22/20 00:16	06/26/20 08:53	JDG	Mt. Juliet, TN

MW-49 L1230678-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:40
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495502	50	06/25/20 17:24	06/25/20 17:24	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	50	06/25/20 15:00	06/25/20 22:19	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	10	06/24/20 14:58	06/24/20 14:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	5	06/24/20 02:13	06/24/20 02:13	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495276	1	06/18/20 20:00	06/19/20 15:00	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:50	TCT	Mt. Juliet, TN

MW-49 L1230678-04 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 13:40 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:24	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495365	1	06/25/20 07:36	06/25/20 12:10	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/25/20 17:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495347	1	06/25/20 08:41	06/26/20 13:47	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 11:55	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	20	06/22/20 03:31	06/22/20 03:31	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	20	06/21/20 07:22	06/21/20 07:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/24/20 23:57	CAG	Mt. Juliet, TN

DUP-TEL-01 L1230678-05 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 12:00 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:14	06/24/20 19:14	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 12:43	06/24/20 12:43	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 02:43	06/24/20 02:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 18:45	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:02	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 12:14	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	10	06/22/20 03:52	06/22/20 03:52	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 02:38	06/21/20 02:38	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 00:22	CAG	Mt. Juliet, TN

EB-TEL-01 L1230678-06 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 11:40 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1495937	1	06/19/20 21:40	06/20/20 08:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:16	06/24/20 19:16	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 02:58	06/24/20 02:58	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:00	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:12	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 12:18	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 02:30	06/22/20 02:30	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 01:37	06/21/20 01:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 15:58	TJD	Mt. Juliet, TN

TRIP BLANK-TEL-01 L1230678-07 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 00:00 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 01:58	06/21/20 01:58	BMB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3770		14.1	50.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/25/2020 17:36	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	456		37.9	100	100	06/24/2020 00:44	WG1497346
Fluoride	0.932		0.0640	0.150	1	06/24/2020 11:58	WG1497346
Sulfate	1480		59.4	500	100	06/24/2020 00:44	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00632		0.000735	0.00200	1	06/25/2020 00:38	WG1495379
Arsenic,Dissolved	0.00668		0.000735	0.00200	1	06/25/2020 17:29	WG1495347
Barium	0.0169	J	0.00778	0.0200	1	06/25/2020 00:38	WG1495379
Barium,Dissolved	0.0183	J	0.00778	0.0200	1	06/25/2020 17:29	WG1495347
Calcium	305		0.480	1.00	1	06/25/2020 00:38	WG1495379
Chromium	0.103		0.00149	0.00200	1	06/25/2020 00:38	WG1495379
Chromium,Dissolved	0.00662		0.00149	0.00200	1	06/25/2020 17:29	WG1495347
Iron	0.455		0.0489	0.100	1	06/25/2020 00:38	WG1495379
Iron,Dissolved	0.151		0.0489	0.100	1	06/25/2020 17:29	WG1495347
Lead	U		0.00249	0.00500	1	06/25/2020 00:38	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:29	WG1495347
Manganese	1.17	V	0.00132	0.00500	1	06/25/2020 00:38	WG1495379
Manganese,Dissolved	1.35		0.00132	0.00500	1	06/25/2020 17:29	WG1495347
Potassium	U		0.534	2.00	1	06/25/2020 00:38	WG1495379
Selenium	0.000712	J	0.000657	0.00200	1	06/25/2020 00:38	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 17:29	WG1495347
Sodium	284	O1 V	0.630	2.00	1	06/25/2020 11:29	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.456	J	0.157	0.500	5	06/21/2020 06:15	WG1496338
(S) a,a,a-Trifluorotoluene(FID)	*85.5*			*78.0-120*		*06/21/2020 06:15*	WG1496338

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/21/2020 06:41	WG1496261
Benzene	0.00721		0.000471	0.00500	5	06/21/2020 06:41	WG1496261
Bromodichloromethane	U		0.000680	0.00500	5	06/21/2020 06:41	WG1496261
Bromoform	U		0.000645	0.00500	5	06/21/2020 06:41	WG1496261
Bromomethane	U		0.00303	0.0250	5	06/21/2020 06:41	WG1496261
n-Butylbenzene	U		0.000785	0.00500	5	06/21/2020 06:41	WG1496261
sec-Butylbenzene	0.00914		0.000625	0.00500	5	06/21/2020 06:41	WG1496261
Carbon disulfide	U		0.000481	0.00500	5	06/21/2020 06:41	WG1496261
Carbon tetrachloride	U		0.000640	0.00500	5	06/21/2020 06:41	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000580	0.00500	5	06/21/2020 06:41	WG1496261
Chlorodibromomethane	U		0.000700	0.00500	5	06/21/2020 06:41	WG1496261
Chloroethane	U		0.000960	0.0250	5	06/21/2020 06:41	WG1496261
Chloroform	U		0.000555	0.0250	5	06/21/2020 06:41	WG1496261
Chloromethane	U		0.00480	0.0125	5	06/21/2020 06:41	WG1496261
1,2-Dibromoethane	U		0.000630	0.00500	5	06/21/2020 06:41	WG1496261
1,1-Dichloroethane	U		0.000500	0.00500	5	06/21/2020 06:41	WG1496261
1,2-Dichloroethane	U		0.000409	0.00500	5	06/21/2020 06:41	WG1496261
1,1-Dichloroethene	U		0.000940	0.00500	5	06/21/2020 06:41	WG1496261
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/21/2020 06:41	WG1496261
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/21/2020 06:41	WG1496261
1,2-Dichloropropane	U		0.000745	0.00500	5	06/21/2020 06:41	WG1496261
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/21/2020 06:41	WG1496261
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/21/2020 06:41	WG1496261
Ethylbenzene	U		0.000685	0.00500	5	06/21/2020 06:41	WG1496261
Isopropylbenzene	0.0148		0.000525	0.00500	5	06/21/2020 06:41	WG1496261
p-Isopropyltoluene	U		0.000600	0.00500	5	06/21/2020 06:41	WG1496261
2-Butanone (MEK)	U		0.00595	0.0500	5	06/21/2020 06:41	WG1496261
2-Hexanone	U		0.00394	0.0500	5	06/21/2020 06:41	WG1496261
Methylene Chloride	U		0.00215	0.0250	5	06/21/2020 06:41	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/21/2020 06:41	WG1496261
Methyl tert-butyl ether	0.0431		0.000505	0.00500	5	06/21/2020 06:41	WG1496261
Naphthalene	U		0.00500	0.0250	5	06/21/2020 06:41	WG1496261
n-Propylbenzene	0.00519		0.000497	0.00500	5	06/21/2020 06:41	WG1496261
Styrene	U		0.000590	0.00500	5	06/21/2020 06:41	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/21/2020 06:41	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/21/2020 06:41	WG1496261
Tetrachloroethene	U		0.00150	0.00500	5	06/21/2020 06:41	WG1496261
Toluene	U		0.00139	0.00500	5	06/21/2020 06:41	WG1496261
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/21/2020 06:41	WG1496261
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/21/2020 06:41	WG1496261
Trichloroethene	U		0.000950	0.00500	5	06/21/2020 06:41	WG1496261
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	06/21/2020 06:41	WG1496261
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/21/2020 06:41	WG1496261
Vinyl chloride	U		0.00117	0.00500	5	06/21/2020 06:41	WG1496261
o-Xylene	U		0.000870	0.00500	5	06/21/2020 06:41	WG1496261
m&p-Xylene	U		0.00215	0.0100	5	06/21/2020 06:41	WG1496261
Xylenes, Total	U		0.000870	0.0150	5	06/21/2020 06:41	WG1496261
(S) Toluene-d8	*108*			*80.0-120*		*06/21/2020 06:41*	WG1496261
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/21/2020 06:41*	WG1496261
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*06/21/2020 06:41*	WG1496261

Sample Narrative:

L1230678-01 WG1496261: DILUTION DUE TO FOAM

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.73		0.0247	0.100	1	06/24/2020 23:31	WG1496547
(S) o-Terphenyl	*132*			*31.0-160*		*06/24/2020 23:31*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3400		14.1	50.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/25/2020 17:21	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	130		37.9	100	100	06/24/2020 01:43	WG1497346
Fluoride	0.988		0.0640	0.150	1	06/24/2020 12:13	WG1497346
Sulfate	1540		59.4	500	100	06/24/2020 01:43	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00826		0.000735	0.00200	1	06/25/2020 00:51	WG1495379
Arsenic,Dissolved	0.00940		0.000735	0.00200	1	06/25/2020 17:32	WG1495347
Barium	0.131		0.00778	0.0200	1	06/25/2020 00:51	WG1495379
Barium,Dissolved	0.0307		0.00778	0.0200	1	06/25/2020 17:32	WG1495347
Calcium	280		0.480	1.00	1	06/25/2020 00:51	WG1495379
Chromium	0.00193	J	0.00149	0.00200	1	06/25/2020 00:51	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:32	WG1495347
Iron	0.0517	J	0.0489	0.100	1	06/25/2020 00:51	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 17:32	WG1495347
Lead	U		0.00249	0.00500	1	06/25/2020 00:51	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:32	WG1495347
Manganese	0.0341		0.00132	0.00500	1	06/25/2020 00:51	WG1495379
Manganese,Dissolved	0.0377		0.00132	0.00500	1	06/25/2020 17:32	WG1495347
Potassium	1.05	J	0.534	2.00	1	06/25/2020 00:51	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 00:51	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 17:32	WG1495347
Sodium	373		0.630	2.00	1	06/25/2020 11:48	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.89		0.314	1.00	10	06/22/2020 02:51	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*89.1*			*78.0-120*		*06/22/2020 02:51*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	06/21/2020 07:01	WG1496261
Benzene	0.362		0.000941	0.0100	10	06/21/2020 07:01	WG1496261
Bromodichloromethane	U		0.00136	0.0100	10	06/21/2020 07:01	WG1496261
Bromoform	U		0.00129	0.0100	10	06/21/2020 07:01	WG1496261
Bromomethane	U		0.00605	0.0500	10	06/21/2020 07:01	WG1496261
n-Butylbenzene	U		0.00157	0.0100	10	06/21/2020 07:01	WG1496261
sec-Butylbenzene	0.00313	J	0.00125	0.0100	10	06/21/2020 07:01	WG1496261
Carbon disulfide	U		0.000962	0.0100	10	06/21/2020 07:01	WG1496261
Carbon tetrachloride	U		0.00128	0.0100	10	06/21/2020 07:01	WG1496261

Received by OCD: 6/23/2021 4:05:29 PM

TEL-2
Collected date/time: 06/16/20 11:25

SAMPLE RESULTS - 02

L1230678

ONE LAB. NATIONWIDE.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00116	0.0100	10	06/21/2020 07:01	WG1496261
Chlorodibromomethane	U		0.00140	0.0100	10	06/21/2020 07:01	WG1496261
Chloroethane	U		0.00192	0.0500	10	06/21/2020 07:01	WG1496261
Chloroform	U		0.00111	0.0500	10	06/21/2020 07:01	WG1496261
Chloromethane	U		0.00960	0.0250	10	06/21/2020 07:01	WG1496261
1,2-Dibromoethane	U		0.00126	0.0100	10	06/21/2020 07:01	WG1496261
1,1-Dichloroethane	U		0.00100	0.0100	10	06/21/2020 07:01	WG1496261
1,2-Dichloroethane	U		0.000819	0.0100	10	06/21/2020 07:01	WG1496261
1,1-Dichloroethene	U		0.00188	0.0100	10	06/21/2020 07:01	WG1496261
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	06/21/2020 07:01	WG1496261
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	06/21/2020 07:01	WG1496261
1,2-Dichloropropane	U		0.00149	0.0100	10	06/21/2020 07:01	WG1496261
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	06/21/2020 07:01	WG1496261
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	06/21/2020 07:01	WG1496261
Ethylbenzene	0.00152	J	0.00137	0.0100	10	06/21/2020 07:01	WG1496261
Isopropylbenzene	0.0178		0.00105	0.0100	10	06/21/2020 07:01	WG1496261
p-Isopropyltoluene	U		0.00120	0.0100	10	06/21/2020 07:01	WG1496261
2-Butanone (MEK)	U		0.0119	0.100	10	06/21/2020 07:01	WG1496261
2-Hexanone	U		0.00787	0.100	10	06/21/2020 07:01	WG1496261
Methylene Chloride	U		0.00430	0.0500	10	06/21/2020 07:01	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	06/21/2020 07:01	WG1496261
Methyl tert-butyl ether	0.00459	J	0.00101	0.0100	10	06/21/2020 07:01	WG1496261
Naphthalene	U		0.0100	0.0500	10	06/21/2020 07:01	WG1496261
n-Propylbenzene	0.0150		0.000993	0.0100	10	06/21/2020 07:01	WG1496261
Styrene	U		0.00118	0.0100	10	06/21/2020 07:01	WG1496261
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	06/21/2020 07:01	WG1496261
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	06/21/2020 07:01	WG1496261
Tetrachloroethene	U		0.00300	0.0100	10	06/21/2020 07:01	WG1496261
Toluene	0.00510	J	0.00278	0.0100	10	06/21/2020 07:01	WG1496261
1,1,1-Trichloroethane	U		0.00149	0.0100	10	06/21/2020 07:01	WG1496261
1,1,2-Trichloroethane	U		0.00158	0.0100	10	06/21/2020 07:01	WG1496261
Trichloroethene	U		0.00190	0.0100	10	06/21/2020 07:01	WG1496261
1,2,4-Trimethylbenzene	0.0402		0.00322	0.0100	10	06/21/2020 07:01	WG1496261
1,3,5-Trimethylbenzene	0.00377	J	0.00104	0.0100	10	06/21/2020 07:01	WG1496261
Vinyl chloride	U		0.00234	0.0100	10	06/21/2020 07:01	WG1496261
o-Xylene	U		0.00174	0.0100	10	06/21/2020 07:01	WG1496261
m&p-Xylene	0.0489		0.00430	0.0200	10	06/21/2020 07:01	WG1496261
Xylenes, Total	0.0489		0.00174	0.0300	10	06/21/2020 07:01	WG1496261
(S) Toluene-d8	*108*			*80.0-120*		*06/21/2020 07:01*	WG1496261
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 07:01*	WG1496261
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*06/21/2020 07:01*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.16		0.247	1.00	10	06/25/2020 06:27	WG1496547
(S) o-Terphenyl	*98.4*			*31.0-160*		*06/25/2020 06:27*	WG1496547

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2140		14.1	50.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/25/2020 17:23	WG1495502

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	184		7.58	20.0	20	06/24/2020 01:58	WG1497346
Fluoride	1.98		0.0640	0.150	1	06/24/2020 12:28	WG1497346
Sulfate	699		11.9	100	20	06/24/2020 01:58	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0116		0.000735	0.00200	1	06/25/2020 00:55	WG1495379
Arsenic,Dissolved	0.0134		0.000735	0.00200	1	06/25/2020 17:35	WG1495347
Barium	0.0152	J	0.00778	0.0200	1	06/25/2020 00:55	WG1495379
Barium,Dissolved	0.0162	J	0.00778	0.0200	1	06/25/2020 17:35	WG1495347
Calcium	143		0.480	1.00	1	06/25/2020 00:55	WG1495379
Chromium	0.00273		0.00149	0.00200	1	06/25/2020 00:55	WG1495379
Chromium,Dissolved	0.00317		0.00149	0.00200	1	06/25/2020 17:35	WG1495347
Iron	0.120		0.0489	0.100	1	06/25/2020 00:55	WG1495379
Iron,Dissolved	0.113		0.0489	0.100	1	06/25/2020 17:35	WG1495347
Lead	U		0.00249	0.00500	1	06/25/2020 00:55	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:35	WG1495347
Manganese	0.0315		0.00132	0.00500	1	06/25/2020 00:55	WG1495379
Manganese,Dissolved	0.0390		0.00132	0.00500	1	06/25/2020 17:35	WG1495347
Potassium	0.565	J	0.534	2.00	1	06/25/2020 00:55	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 00:55	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 17:35	WG1495347
Sodium	435		0.630	2.00	1	06/25/2020 11:51	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.366	J	0.314	1.00	10	06/22/2020 03:11	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*		*06/22/2020 03:11*	WG1496530

Sample Narrative:

L1230678-03 WG1496530: cannot run lower due to foam

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 02:18	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 02:18	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 02:18	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 02:18	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 02:18	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 02:18	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.000692	J	0.000125	0.00100	1	06/21/2020 02:18	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 02:18	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 02:18	WG1496261
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 02:18	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 02:18	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 02:18	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 02:18	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 02:18	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 02:18	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 02:18	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 02:18	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 02:18	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 02:18	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 02:18	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 02:18	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 02:18	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 02:18	WG1496261
Ethylbenzene	0.000831	J	0.000137	0.00100	1	06/21/2020 02:18	WG1496261
Isopropylbenzene	0.00123		0.000105	0.00100	1	06/21/2020 02:18	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 02:18	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 02:18	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 02:18	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 02:18	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 02:18	WG1496261
Methyl tert-butyl ether	0.00230		0.000101	0.00100	1	06/21/2020 02:18	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 02:18	WG1496261
n-Propylbenzene	0.000241	J	0.0000993	0.00100	1	06/21/2020 02:18	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 02:18	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 02:18	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 02:18	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 02:18	WG1496261
Toluene	0.000961	J	0.000278	0.00100	1	06/21/2020 02:18	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 02:18	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 02:18	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 02:18	WG1496261
1,2,4-Trimethylbenzene	0.00114		0.000322	0.00100	1	06/21/2020 02:18	WG1496261
1,3,5-Trimethylbenzene	0.000302	J	0.000104	0.00100	1	06/21/2020 02:18	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 02:18	WG1496261
o-Xylene	0.00155		0.000174	0.00100	1	06/21/2020 02:18	WG1496261
m&p-Xylene	0.00139	J	0.000430	0.00200	1	06/21/2020 02:18	WG1496261
Xylenes, Total	0.00294	J	0.000174	0.00300	1	06/21/2020 02:18	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 02:18*	WG1496261
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/21/2020 02:18*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*06/21/2020 02:18*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.74		0.247	1.00	10	06/26/2020 08:53	WG1496547
(S) o-Terphenyl	*107*			*31.0-160*		*06/26/2020 08:53*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2350		14.1	50.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/25/2020 17:24	WG1495502

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.0900	0.250	50	06/25/2020 22:19	WG1498827

Sample Narrative:

L1230678-04 WG1498827: Diluted due to Sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	442		1.90	5.00	5	06/24/2020 02:13	WG1497346
Fluoride	1.38		0.320	0.750	5	06/24/2020 02:13	WG1497346
Sulfate	487		5.94	50.0	10	06/24/2020 14:58	WG1497346

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/19/2020 15:00	WG1495276
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:50	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.638		0.0254	0.200	1	06/25/2020 12:10	WG1495365
Boron,Dissolved	0.664		0.0254	0.200	1	06/25/2020 12:24	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00514		0.000735	0.00200	1	06/25/2020 00:58	WG1495379
Arsenic,Dissolved	0.00575		0.000735	0.00200	1	06/25/2020 17:38	WG1495347
Barium	0.0552		0.00778	0.0200	1	06/25/2020 00:58	WG1495379
Barium,Dissolved	0.0545		0.00778	0.0200	1	06/25/2020 17:38	WG1495347
Cadmium	U		0.000478	0.00100	1	06/25/2020 00:58	WG1495379
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 17:38	WG1495347
Calcium	210		0.480	1.00	1	06/25/2020 00:58	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 00:58	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 17:38	WG1495347
Cobalt	U		0.000477	0.00200	1	06/25/2020 00:58	WG1495379
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 17:38	WG1495347
Iron	U		0.0489	0.100	1	06/25/2020 00:58	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 17:38	WG1495347
Lead	U		0.00249	0.00500	1	06/25/2020 00:58	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 17:38	WG1495347
Manganese	0.147		0.00132	0.00500	1	06/25/2020 00:58	WG1495379

Received by OCD: 6/23/2021 4:05:29 PM

MW-45
Collected date/time: 06/16/20 13:40
L1230678

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.185		0.00132	0.00500	1	06/25/2020 17:38	WG1495347
Nickel	0.00696		0.000952	0.00200	1	06/25/2020 00:58	WG1495379
Nickel,Dissolved	0.00770		0.000952	0.00200	1	06/26/2020 13:47	WG1495347
Potassium	2.90		0.534	2.00	1	06/25/2020 00:58	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 00:58	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 17:38	WG1495347
Sodium	309		0.630	2.00	1	06/25/2020 11:55	WG1495379
Uranium	U		0.00754	0.0200	1	06/25/2020 00:58	WG1495379
Uranium,Dissolved	U		0.00754	0.0200	1	06/25/2020 17:38	WG1495347
Vanadium	U		0.000986	0.00500	1	06/25/2020 00:58	WG1495379
Vanadium,Dissolved	U		0.000986	0.00500	1	06/25/2020 17:38	WG1495347

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5.45		0.628	2.00	20	06/22/2020 03:31	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*90.5*			*78.0-120*		*06/22/2020 03:31*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/21/2020 07:22	WG1496261
Benzene	0.600		0.00188	0.0200	20	06/21/2020 07:22	WG1496261
Bromodichloromethane	U		0.00272	0.0200	20	06/21/2020 07:22	WG1496261
Bromoform	U		0.00258	0.0200	20	06/21/2020 07:22	WG1496261
Bromomethane	U		0.0121	0.100	20	06/21/2020 07:22	WG1496261
n-Butylbenzene	0.00395	J	0.00314	0.0200	20	06/21/2020 07:22	WG1496261
sec-Butylbenzene	0.00708	J	0.00250	0.0200	20	06/21/2020 07:22	WG1496261
Carbon disulfide	U		0.00192	0.0200	20	06/21/2020 07:22	WG1496261
Carbon tetrachloride	U		0.00256	0.0200	20	06/21/2020 07:22	WG1496261
Chlorobenzene	U		0.00232	0.0200	20	06/21/2020 07:22	WG1496261
Chlorodibromomethane	U		0.00280	0.0200	20	06/21/2020 07:22	WG1496261
Chloroethane	U		0.00384	0.100	20	06/21/2020 07:22	WG1496261
Chloroform	U		0.00222	0.100	20	06/21/2020 07:22	WG1496261
Chloromethane	U		0.0192	0.0500	20	06/21/2020 07:22	WG1496261
1,2-Dibromoethane	U		0.00252	0.0200	20	06/21/2020 07:22	WG1496261
1,1-Dichloroethane	U		0.00200	0.0200	20	06/21/2020 07:22	WG1496261
1,2-Dichloroethane	U		0.00164	0.0200	20	06/21/2020 07:22	WG1496261
1,1-Dichloroethene	U		0.00376	0.0200	20	06/21/2020 07:22	WG1496261
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/21/2020 07:22	WG1496261
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/21/2020 07:22	WG1496261
1,2-Dichloropropane	U		0.00298	0.0200	20	06/21/2020 07:22	WG1496261
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/21/2020 07:22	WG1496261
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/21/2020 07:22	WG1496261
Ethylbenzene	0.0249		0.00274	0.0200	20	06/21/2020 07:22	WG1496261
Isopropylbenzene	0.0470		0.00210	0.0200	20	06/21/2020 07:22	WG1496261
p-Isopropyltoluene	0.00264	J	0.00240	0.0200	20	06/21/2020 07:22	WG1496261
2-Butanone (MEK)	U		0.0238	0.200	20	06/21/2020 07:22	WG1496261
2-Hexanone	U		0.0157	0.200	20	06/21/2020 07:22	WG1496261
Methylene Chloride	U		0.00860	0.100	20	06/21/2020 07:22	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/21/2020 07:22	WG1496261
Methyl tert-butyl ether	0.148		0.00202	0.0200	20	06/21/2020 07:22	WG1496261
Naphthalene	0.0241	J	0.0200	0.100	20	06/21/2020 07:22	WG1496261
n-Propylbenzene	0.0462		0.00199	0.0200	20	06/21/2020 07:22	WG1496261
Styrene	U		0.00236	0.0200	20	06/21/2020 07:22	WG1496261

Released to Imaging: 11/21/2023 10:16:55 AM

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/21/2020 07:22	WG1496261
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/21/2020 07:22	WG1496261
Tetrachloroethene	U		0.00600	0.0200	20	06/21/2020 07:22	WG1496261
Toluene	0.00895	J	0.00556	0.0200	20	06/21/2020 07:22	WG1496261
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/21/2020 07:22	WG1496261
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/21/2020 07:22	WG1496261
Trichloroethene	U		0.00380	0.0200	20	06/21/2020 07:22	WG1496261
1,2,4-Trimethylbenzene	0.115		0.00644	0.0200	20	06/21/2020 07:22	WG1496261
1,3,5-Trimethylbenzene	0.0214		0.00208	0.0200	20	06/21/2020 07:22	WG1496261
Vinyl chloride	U		0.00468	0.0200	20	06/21/2020 07:22	WG1496261
o-Xylene	U		0.00348	0.0200	20	06/21/2020 07:22	WG1496261
m&p-Xylene	0.179		0.00860	0.0400	20	06/21/2020 07:22	WG1496261
Xylenes, Total	0.179		0.00348	0.0600	20	06/21/2020 07:22	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 07:22*	WG1496261
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/21/2020 07:22*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*06/21/2020 07:22*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.96		0.0247	0.100	1	06/24/2020 23:57	WG1496547
(S) o-Terphenyl	*104*			*31.0-160*		*06/24/2020 23:57*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3770		14.1	50.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:14	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	455		37.9	100	100	06/24/2020 02:43	WG1497346
Fluoride	0.841		0.0640	0.150	1	06/24/2020 12:43	WG1497346
Sulfate	1490		59.4	500	100	06/24/2020 02:43	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00618		0.000735	0.00200	1	06/25/2020 01:02	WG1495379
Arsenic,Dissolved	0.00635		0.000735	0.00200	1	06/24/2020 18:45	WG1495348
Barium	0.0178	J	0.00778	0.0200	1	06/25/2020 01:02	WG1495379
Barium,Dissolved	0.0173	J	0.00778	0.0200	1	06/24/2020 18:45	WG1495348
Calcium	308		0.480	1.00	1	06/25/2020 01:02	WG1495379
Chromium	0.125		0.00149	0.00200	1	06/25/2020 01:02	WG1495379
Chromium,Dissolved	0.00568		0.00149	0.00200	1	06/24/2020 18:45	WG1495348
Iron	0.506		0.0489	0.100	1	06/25/2020 01:02	WG1495379
Iron,Dissolved	0.157		0.0489	0.100	1	06/24/2020 18:45	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:02	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 18:45	WG1495348
Manganese	1.19		0.00132	0.00500	1	06/25/2020 01:02	WG1495379
Manganese,Dissolved	1.24	V	0.00132	0.00500	1	06/24/2020 18:45	WG1495348
Potassium	U		0.534	2.00	1	06/25/2020 01:02	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:02	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 18:45	WG1495348
Sodium	286		0.630	2.00	1	06/25/2020 12:14	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.976	J	0.314	1.00	10	06/22/2020 03:52	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*85.8*			*78.0-120*		*06/22/2020 03:52*	WG1496530

Sample Narrative:

L1230678-05 WG1496530: cannot run lower due to foam

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 02:38	WG1496261
Benzene	0.00759		0.0000941	0.00100	1	06/21/2020 02:38	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 02:38	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 02:38	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 02:38	WG1496261
n-Butylbenzene	0.000859	J	0.000157	0.00100	1	06/21/2020 02:38	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0111		0.000125	0.00100	1	06/21/2020 02:38	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 02:38	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 02:38	WG1496261
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 02:38	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 02:38	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 02:38	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 02:38	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 02:38	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 02:38	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 02:38	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 02:38	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 02:38	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 02:38	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 02:38	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 02:38	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 02:38	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 02:38	WG1496261
Ethylbenzene	0.000453	J	0.000137	0.00100	1	06/21/2020 02:38	WG1496261
Isopropylbenzene	0.0168		0.000105	0.00100	1	06/21/2020 02:38	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 02:38	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 02:38	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 02:38	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 02:38	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 02:38	WG1496261
Methyl tert-butyl ether	0.0438		0.000101	0.00100	1	06/21/2020 02:38	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 02:38	WG1496261
n-Propylbenzene	0.00690		0.0000993	0.00100	1	06/21/2020 02:38	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 02:38	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 02:38	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 02:38	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 02:38	WG1496261
Toluene	0.000640	J	0.000278	0.00100	1	06/21/2020 02:38	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 02:38	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 02:38	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 02:38	WG1496261
1,2,4-Trimethylbenzene	0.000866	J	0.000322	0.00100	1	06/21/2020 02:38	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 02:38	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 02:38	WG1496261
o-Xylene	0.000275	J	0.000174	0.00100	1	06/21/2020 02:38	WG1496261
m&p-Xylene	0.00183	J	0.000430	0.00200	1	06/21/2020 02:38	WG1496261
Xylenes, Total	0.00211	J	0.000174	0.00300	1	06/21/2020 02:38	WG1496261
(S) Toluene-d8	*111*			*80.0-120*		*06/21/2020 02:38*	WG1496261
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/21/2020 02:38*	WG1496261
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*06/21/2020 02:38*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.68		0.0247	0.100	1	06/25/2020 00:22	WG1496547
(S) o-Terphenyl	*78.4*			*31.0-160*		*06/25/2020 00:22*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/20/2020 08:52	WG1495937

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:16	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/24/2020 02:58	WG1497346
Fluoride	U		0.0640	0.150	1	06/24/2020 02:58	WG1497346
Sulfate	U		0.594	5.00	1	06/24/2020 02:58	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 01:12	WG1495379
Arsenic,Dissolved	U		0.000735	0.00200	1	06/24/2020 19:00	WG1495348
Barium	U		0.00778	0.0200	1	06/25/2020 01:12	WG1495379
Barium,Dissolved	U		0.00778	0.0200	1	06/24/2020 19:00	WG1495348
Calcium	U		0.480	1.00	1	06/25/2020 01:12	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:12	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:00	WG1495348
Iron	U		0.0489	0.100	1	06/25/2020 01:12	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 19:00	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:12	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:00	WG1495348
Manganese	U		0.00132	0.00500	1	06/25/2020 01:12	WG1495379
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 19:00	WG1495348
Potassium	U		0.534	2.00	1	06/25/2020 01:12	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:12	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 19:00	WG1495348
Sodium	U		0.630	2.00	1	06/25/2020 12:18	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 02:30	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*92.8*			*78.0-120*		*06/22/2020 02:30*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	0.0214	J	0.0113	0.0500	1	06/21/2020 01:37	WG1496261
Benzene	0.000102	J	0.0000941	0.00100	1	06/21/2020 01:37	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 01:37	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 01:37	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 01:37	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 01:37	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 01:37	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 01:37	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 01:37	WG1496261

EB-TEL-01
Collected date/time: 06/16/20 11:40
L1230678

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 01:37	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 01:37	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 01:37	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 01:37	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 01:37	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 01:37	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 01:37	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 01:37	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 01:37	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 01:37	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 01:37	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 01:37	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 01:37	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 01:37	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 01:37	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 01:37	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 01:37	WG1496261
2-Butanone (MEK)	0.00554	J	0.00119	0.0100	1	06/21/2020 01:37	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 01:37	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 01:37	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 01:37	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 01:37	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 01:37	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 01:37	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 01:37	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 01:37	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 01:37	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 01:37	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 01:37	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 01:37	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 01:37	WG1496261
Trichloroethene	0.000337	J	0.000190	0.00100	1	06/21/2020 01:37	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 01:37	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 01:37	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 01:37	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 01:37	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 01:37	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 01:37	WG1496261
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 01:37*	WG1496261
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*06/21/2020 01:37*	WG1496261
(S) 1,2-Dichloroethane-d4	*90.9*			*70.0-130*		*06/21/2020 01:37*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0988	J	0.0247	0.100	1	06/25/2020 15:58	WG1496547
(S) o-Terphenyl	*92.6*			*31.0-160*		*06/25/2020 15:58*	WG1496547

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 01:58	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 01:58	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 01:58	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 01:58	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 01:58	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 01:58	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 01:58	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 01:58	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 01:58	WG1496261
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 01:58	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 01:58	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 01:58	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 01:58	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 01:58	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 01:58	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 01:58	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 01:58	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 01:58	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 01:58	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 01:58	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 01:58	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 01:58	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 01:58	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 01:58	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 01:58	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 01:58	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 01:58	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 01:58	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 01:58	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 01:58	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 01:58	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 01:58	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 01:58	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 01:58	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 01:58	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 01:58	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 01:58	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 01:58	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 01:58	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 01:58	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 01:58	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 01:58	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 01:58	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 01:58	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 01:58	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 01:58	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 01:58	WG1496261
(S) Toluene-d8	*109*			*80.0-120*		*06/21/2020 01:58*	WG1496261
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*		*06/21/2020 01:58*	WG1496261
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*06/21/2020 01:58*	WG1496261

Method Blank (MB)

(MB) R3541558-1 06/20/20 08:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230678-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-05 06/20/20 08:52 • (DUP) R3541558-3 06/20/20 08:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3770	3810	1	1.19		5

L1231045-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1231045-03 06/20/20 08:52 • (DUP) R3541558-4 06/20/20 08:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1110	1140	1	2.32		5

Laboratory Control Sample (LCS)

(LCS) R3541558-2 06/20/20 08:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8730	99.2	85.0-115	

Method Blank (MB)

(MB) R3543078-1 06/25/20 16:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230655-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-03 06/25/20 17:15 • (DUP) R3543078-7 06/25/20 17:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543078-2 06/25/20 16:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.97	99.3	90.0-110	

L1230655-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230655-02 06/25/20 17:09 • (MS) R3543078-6 06/25/20 17:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.0643	2.82	110	1	90.0-110	

Method Blank (MB)

(MB) R3542599-1 06/24/20 19:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230678-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-05 06/24/20 19:14 • (DUP) R3542599-3 06/24/20 19:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1230681-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-18 06/24/20 19:50 • (DUP) R3542599-7 06/24/20 19:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0594	0.0682	1	13.8	J	20

Laboratory Control Sample (LCS)

(LCS) R3542599-2 06/24/20 19:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.97	99.3	90.0-110	

L1230681-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-08 06/24/20 19:30 • (MS) R3542599-4 06/24/20 19:31 • (MSD) R3542599-5 06/24/20 19:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.26	2.27	90.4	90.8	1	90.0-110			0.442	20

L1230681-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-14 06/24/20 19:44 • (MS) R3542599-6 06/24/20 19:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.47	98.8	1	90.0-110	

Method Blank (MB)

(MB) R3543143-1 06/25/20 22:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1230655-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-02 06/25/20 22:17 • (DUP) R3543143-3 06/25/20 22:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1230685-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-24 06/25/20 22:34 • (DUP) R3543143-6 06/25/20 22:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543143-2 06/25/20 22:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.103	103	90.0-110	

L1230685-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-02 06/25/20 22:25 • (MS) R3543143-4 06/25/20 22:26 • (MSD) R3543143-5 06/25/20 22:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0841	0.0852	84.1	85.2	1	75.0-125			1.30	20

L1230685-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-25 06/25/20 22:38 • (MS) R3543143-7 06/25/20 22:39 • (MSD) R3543143-8 06/25/20 22:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0877	0.0944	87.7	94.4	1	75.0-125			7.36	20

Method Blank (MB)

(MB) R3542446-1 06/23/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/23/20 23:14 • (DUP) R3542446-3 06/23/20 23:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	61.0	61.0	1	0.127		15
Fluoride	0.105	0.102	1	2.42	J	15

L1230678-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-06 06/24/20 02:58 • (DUP) R3542446-6 06/24/20 03:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/24/20 10:43 • (DUP) R3542446-8 06/24/20 11:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	156	154	5	1.33		15

Laboratory Control Sample (LCS)

(LCS) R3542446-2 06/23/20 19:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.0	97.6	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	39.7	99.3	80.0-120	

L1230674-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230674-02 06/23/20 23:44 • (MS) R3542446-4 06/23/20 23:59 • (MSD) R3542446-5 06/24/20 00:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	63.8	112	112	95.7	96.0	1	80.0-120	E	E	0.142	15
Fluoride	5.00	0.123	5.09	5.12	99.3	99.9	1	80.0-120			0.537	15
Sulfate	50.0	159	198	199	78.5	79.2	1	80.0-120	E J6	E J6	0.178	15

L1230681-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-21 06/24/20 03:28 • (MS) R3542446-7 06/24/20 03:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	50.0	99.9	1	80.0-120	
Fluoride	5.00	U	4.99	99.9	1	80.0-120	
Sulfate	50.0	U	50.4	101	1	80.0-120	

Method Blank (MB)

(MB) R3540648-1 06/19/20 13:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3540648-2 06/19/20 13:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00292	97.4	80.0-120	

L1230665-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230665-07 06/19/20 13:26 • (MS) R3540648-3 06/19/20 13:34 • (MSD) R3540648-4 06/19/20 13:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00305	0.00308	102	103	1	75.0-125			0.983	20

Method Blank (MB)

(MB) R3541143-1 06/21/20 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541143-2 06/21/20 20:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00335	112	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/21/20 20:38 • (MS) R3541143-3 06/21/20 20:40 • (MSD) R3541143-4 06/21/20 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00246	0.00247	82.0	82.2	1	75.0-125			0.166	20

Method Blank (MB)

(MB) R3542922-1 06/25/20 11:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542922-2 06/25/20 11:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	1.02	102	80.0-120	

L1230685-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-22 06/25/20 11:51 • (MS) R3542922-4 06/25/20 11:57 • (MSD) R3542922-5 06/25/20 12:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.184	1.21	1.22	103	103	1	75.0-125			0.380	20

Method Blank (MB)

(MB) R3542944-1 06/25/20 10:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542944-2 06/25/20 11:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.955	95.5	80.0-120	

L1230669-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230669-05 06/25/20 11:04 • (MS) R3542944-4 06/25/20 11:09 • (MSD) R3542944-5 06/25/20 11:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.0282	1.01	1.00	97.9	97.3	1	75.0-125			0.622	20

Method Blank (MB)

(MB) R3543085-1 06/25/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Method Blank (MB)

(MB) R3543423-1 06/26/20 12:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel,Dissolved	U		0.000952	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543085-2 06/25/20 15:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0528	106	80.0-120	
Barium,Dissolved	0.0500	0.0494	98.9	80.0-120	
Cadmium,Dissolved	0.0500	0.0524	105	80.0-120	
Chromium,Dissolved	0.0500	0.0540	108	80.0-120	
Cobalt,Dissolved	0.0500	0.0536	107	80.0-120	
Iron,Dissolved	5.00	5.27	105	80.0-120	
Lead,Dissolved	0.0500	0.0466	93.1	80.0-120	
Manganese,Dissolved	0.0500	0.0520	104	80.0-120	
Selenium,Dissolved	0.0500	0.0513	103	80.0-120	
Uranium,Dissolved	0.0500	0.0454	90.9	80.0-120	
Vanadium,Dissolved	0.0500	0.0535	107	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3543423-2 06/26/20 12:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel,Dissolved	0.0500	0.0539	108	80.0-120	

L1230651-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230651-02 06/25/20 15:38 • (MS) R3543085-4 06/25/20 15:45 • (MSD) R3543085-5 06/25/20 15:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00381	0.0566	0.0569	106	106	1	75.0-125			0.468	20
Barium,Dissolved	0.0500	0.167	0.219	0.215	105	96.1	1	75.0-125			2.02	20
Cadmium,Dissolved	0.0500	U	0.0527	0.0537	105	107	1	75.0-125			1.96	20
Chromium,Dissolved	0.0500	U	0.0545	0.0541	109	108	1	75.0-125			0.715	20
Cobalt,Dissolved	0.0500	U	0.0531	0.0545	106	109	1	75.0-125			2.57	20
Iron,Dissolved	5.00	42.2	46.2	47.6	78.6	107	1	75.0-125			3.06	20
Lead,Dissolved	0.0500	U	0.0477	0.0470	95.4	94.0	1	75.0-125			1.50	20
Manganese,Dissolved	0.0500	4.48	4.41	4.50	0.000	40.3	1	75.0-125	V	V	2.09	20
Selenium,Dissolved	0.0500	U	0.0506	0.0523	101	105	1	75.0-125			3.32	20
Uranium,Dissolved	0.0500	U	0.0479	0.0465	95.7	93.1	1	75.0-125			2.81	20
Vanadium,Dissolved	0.0500	0.00124	0.0539	0.0555	105	109	1	75.0-125			2.99	20

L1230651-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230651-02 06/26/20 12:14 • (MS) R3543423-4 06/26/20 12:20 • (MSD) R3543423-5 06/26/20 12:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel,Dissolved	0.0500	U	0.0546	0.0507	109	101	1	75.0-125			7.29	20

Method Blank (MB)

(MB) R3542586-1 06/24/20 18:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Chromium,Dissolved	U		0.00149	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200

Laboratory Control Sample (LCS)

(LCS) R3542586-2 06/24/20 18:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0512	102	80.0-120	
Barium,Dissolved	0.0500	0.0487	97.3	80.0-120	
Chromium,Dissolved	0.0500	0.0521	104	80.0-120	
Iron,Dissolved	5.00	5.22	104	80.0-120	
Lead,Dissolved	0.0500	0.0488	97.6	80.0-120	
Manganese,Dissolved	0.0500	0.0518	104	80.0-120	
Selenium,Dissolved	0.0500	0.0500	100	80.0-120	

L1230678-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-05 06/24/20 18:45 • (MS) R3542586-4 06/24/20 18:53 • (MSD) R3542586-5 06/24/20 18:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00635	0.0536	0.0540	94.6	95.3	1	75.0-125			0.720	20
Barium,Dissolved	0.0500	0.0173	0.0642	0.0689	93.9	103	1	75.0-125			6.96	20
Chromium,Dissolved	0.0500	0.00568	0.0533	0.0531	95.2	94.9	1	75.0-125			0.278	20
Iron,Dissolved	5.00	0.157	4.90	4.95	95.0	95.9	1	75.0-125			1.00	20
Lead,Dissolved	0.0500	U	0.0496	0.0493	99.2	98.6	1	75.0-125			0.547	20
Manganese,Dissolved	0.0500	1.24	1.27	1.28	71.9	86.2	1	75.0-125	V		0.558	20
Selenium,Dissolved	0.0500	U	0.0540	0.0514	108	103	1	75.0-125			4.97	20

Method Blank (MB)

(MB) R3542682-1 06/25/20 00:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3542883-1 06/25/20 11:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3542682-2 06/25/20 00:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0466	93.1	80.0-120	
Barium	0.0500	0.0470	94.0	80.0-120	
Cadmium	0.0500	0.0497	99.5	80.0-120	
Calcium	5.00	4.70	94.0	80.0-120	
Chromium	0.0500	0.0483	96.5	80.0-120	
Cobalt	0.0500	0.0493	98.6	80.0-120	
Iron	5.00	4.85	97.0	80.0-120	
Lead	0.0500	0.0493	98.6	80.0-120	
Manganese	0.0500	0.0462	92.4	80.0-120	
Nickel	0.0500	0.0490	98.0	80.0-120	
Potassium	5.00	4.61	92.2	80.0-120	
Selenium	0.0500	0.0473	94.6	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542682-2 06/25/20 00:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	0.0500	0.0471	94.1	80.0-120	
Vanadium	0.0500	0.0460	92.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542883-2 06/25/20 11:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	5.00	4.97	99.3	80.0-120	

L1230678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-01 06/25/20 00:38 • (MS) R3542682-4 06/25/20 00:45 • (MSD) R3542682-5 06/25/20 00:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00632	0.0526	0.0511	92.5	89.6	1	75.0-125			2.80	20
Barium	0.0500	0.0169	0.0628	0.0625	91.8	91.2	1	75.0-125			0.475	20
Cadmium	0.0500	U	0.0505	0.0498	101	99.6	1	75.0-125			1.28	20
Calcium	5.00	305	305	305	2.46	6.31	1	75.0-125	V	V	0.0632	20
Chromium	0.0500	0.103	0.147	0.146	87.9	86.3	1	75.0-125			0.537	20
Cobalt	0.0500	0.00217	0.0481	0.0466	91.9	88.9	1	75.0-125			3.19	20
Potassium	5.00	U	4.80	4.76	96.0	95.2	1	75.0-125			0.874	20
Iron	5.00	0.455	5.16	5.08	94.1	92.4	1	75.0-125			1.62	20
Lead	0.0500	U	0.0465	0.0489	93.1	97.8	1	75.0-125			4.91	20
Manganese	0.0500	1.17	1.21	1.19	77.2	40.4	1	75.0-125		V	1.54	20
Nickel	0.0500	0.127	0.157	0.156	59.9	57.6	1	75.0-125	J6	J6	0.736	20
Selenium	0.0500	0.000712	0.0505	0.0507	99.5	100	1	75.0-125			0.585	20
Uranium	0.0500	U	0.0491	0.0499	98.3	99.8	1	75.0-125			1.54	20
Vanadium	0.0500	U	0.0469	0.0455	93.7	91.1	1	75.0-125			2.91	20

L1230678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-01 06/25/20 11:29 • (MS) R3542883-5 06/25/20 11:40 • (MSD) R3542883-6 06/25/20 11:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	5.00	284	286	289	47.6	98.4	1	75.0-125	V		0.883	20

Method Blank (MB)

(MB) R3542889-2 06/20/20 23:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542889-1 06/20/20 22:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.66	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

L1230678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-01 06/21/20 06:15 • (MS) R3542889-3 06/21/20 06:35 • (MSD) R3542889-4 06/21/20 09:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	27.5	0.456	27.8	27.2	99.4	97.3	5	10.0-160			2.18	22
(S) a,a,a-Trifluorotoluene(FID)					*107*	*106*		*78.0-120*				

Method Blank (MB)

(MB) R3542864-3 06/22/20 01:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542864-1 06/22/20 00:03 • (LCSD) R3542864-2 06/22/20 00:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	4.44	5.23	80.7	95.1	72.0-127			16.3	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*107*	*78.0-120*				

Method Blank (MB)

(MB) R3541999-2 06/21/20 00:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3541999-2 06/21/20 00:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3541999-1 06/20/20 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0247	98.8	19.0-160	
Benzene	0.00500	0.00449	89.8	70.0-123	
Bromodichloromethane	0.00500	0.00455	91.0	75.0-120	
Bromoform	0.00500	0.00500	100	68.0-132	
Bromomethane	0.00500	0.00545	109	10.0-160	
n-Butylbenzene	0.00500	0.00381	76.2	73.0-125	
sec-Butylbenzene	0.00500	0.00423	84.6	75.0-125	
Carbon disulfide	0.00500	0.00407	81.4	61.0-128	
Carbon tetrachloride	0.00500	0.00465	93.0	68.0-126	
Chlorobenzene	0.00500	0.00522	104	80.0-121	
Chlorodibromomethane	0.00500	0.00527	105	77.0-125	
Chloroethane	0.00500	0.00480	96.0	47.0-150	
Chloroform	0.00500	0.00435	87.0	73.0-120	
Chloromethane	0.00500	0.00427	85.4	41.0-142	
1,2-Dibromoethane	0.00500	0.00538	108	80.0-122	
1,1-Dichloroethane	0.00500	0.00468	93.6	70.0-126	
1,2-Dichloroethane	0.00500	0.00485	97.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00477	95.4	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00487	97.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00475	95.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00448	89.6	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00422	84.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00423	84.6	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3541999-1 06/20/20 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00497	99.4	79.0-123	
2-Hexanone	0.0250	0.0231	92.4	67.0-149	
Isopropylbenzene	0.00500	0.00460	92.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00429	85.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0251	100	44.0-160	
Methylene Chloride	0.00500	0.00477	95.4	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0252	101	68.0-142	
Methyl tert-butyl ether	0.00500	0.00353	70.6	68.0-125	
Naphthalene	0.00500	0.00450	90.0	54.0-135	
n-Propylbenzene	0.00500	0.00408	81.6	77.0-124	
Styrene	0.00500	0.00451	90.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00530	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00414	82.8	65.0-130	
Tetrachloroethene	0.00500	0.00547	109	72.0-132	
Toluene	0.00500	0.00457	91.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00467	93.4	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00521	104	80.0-120	
Trichloroethene	0.00500	0.00549	110	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00401	80.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00407	81.4	76.0-122	
Vinyl chloride	0.00500	0.00453	90.6	67.0-131	
Xylenes, Total	0.0150	0.0148	98.7	79.0-123	
o-Xylene	0.00500	0.00470	94.0	80.0-122	
m&p-Xylenes	0.0100	0.0101	101	80.0-122	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*94.3*	*70.0-130*	

Method Blank (MB)

(MB) R3542707-1 06/24/20 20:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*85.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542707-2 06/24/20 20:30 • (LCSD) R3542707-3 06/24/20 20:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.51	1.55	101	103	50.0-150			2.61	20
(S) o-Terphenyl				*100*	*103*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

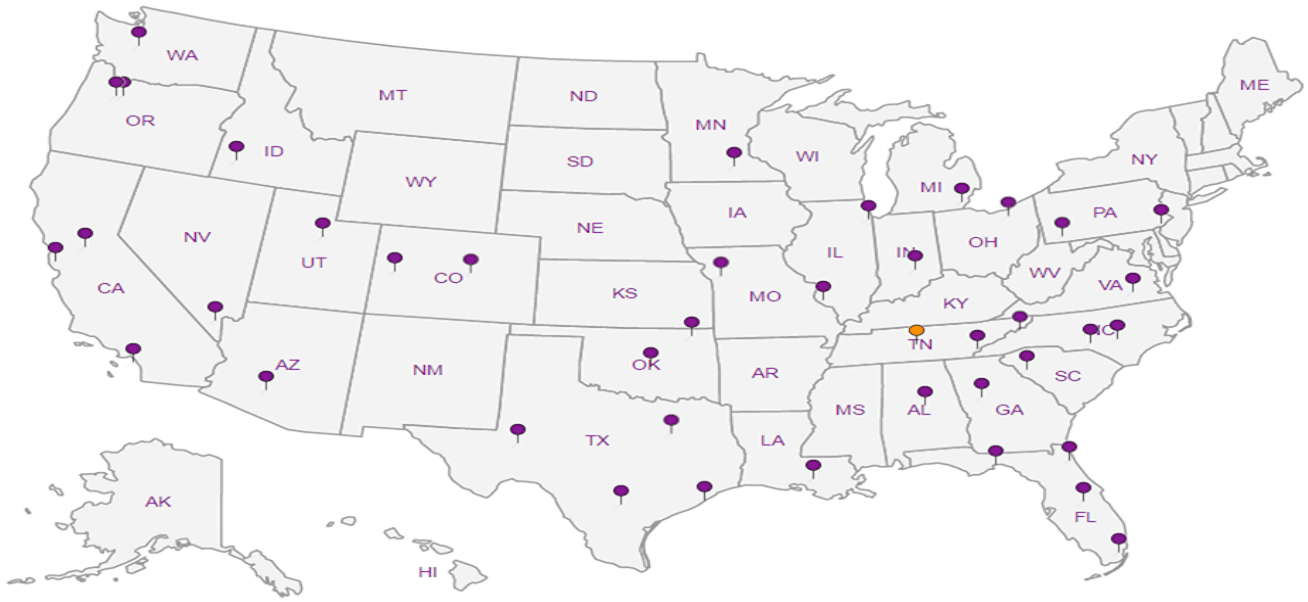
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
TRC Solutions - Austin, TX	330538.0000.0000	L1230678	06/29/20 20:02	42 of 45

DAY

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TEL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TEL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TEL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical* National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123867
1068

Acctnum: TRCATX
Template: T118731
Prelogin: P763442
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
TEL-4	Grab	GW		6/16/20	1255	10	X	X	X	X	X	X						01
TEL-3	Grab	GW				10	X	X	X	X	X	X						
TEL-2	Grab	GW		6/16/20	1125	10	X	X	X	X	X	X						02
TEL-1	Grab	GW				10	X	X	X	X	X	X						03
MW-49	Grab	GW		6/16/20	1340	11	X	X	X		X	X	X	X				04
DUP-TEL-01	Grab	GW		6/16/20	1200	10	X	X	X	X	X	X						05
EB-TEL-01	Grab	GW		6/16/20	1140	10	X	X	X	X	X	X						06
Trip Blank-TEL-01	Grab	GW		6/16/20	—	1	X											07

40 per containers

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	0800	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: IMP#3 °C Bottles Received: 6 1 + TB
1.0-.2=.8

If preservation required by Login: Date/Time
HCL

Date: 6/18/20 Time: 0845

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Tracking #	Corresponding Temp.
4492 6229 7130	1.0 - .2 = 0.8 MP A3
↓ 6230 6815	3.2 ± 0 = 3.2 HM A2
1203 5785 6018	1.8 ± 0 = 1.8 HM A2
1203 5786 0856	1.1 ± 0 = 1.1 HM A2
4492 6230 1310	0.9 ± 0 = 0.9
16635756 9559	1.1 ± 0 = 1.1
4492 6230 6859	0.4 ± 0 = 0.4
8098 2926 7587	1.7 ± 0 = 1.7
↓ ↓ 8790	1.1 ± 0 = 1.1
1203 5785 6030	1.3 ± 0 = 1.3
4492 6230 1331	0.4 ± 0 = 0.4
↓ ↓ 1309	2.3 ± 0 = 2.3
1663 5756 9560	3.0 ± 0 = 3.0
↓ ↓ 9570	0.6 ± 0 = 0.6
4492 6230 1310	0.7 ± 0 = 0.7

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Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Matt Shacklock

Pace Analytical®
National Center for Testing & Innovation

Login #:1230678	Client:TRCATX	Date:6/18/20	Evaluated by:Katie

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: On the chain TEL-1 doesn't have a date and time. Logged sample with time and date from bottle

Client informed by:		Call	x	Email		Voice Mail		Date: 6/17/20	Time: 22:58
TSR Initials: CM	Client Contact: Scott Ude								

Login Instructions:

See attached image for date/times for TEL-1.

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 06, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1230681
Samples Received:	06/18/2020
Project Number:	330538.0000.0000
Description:	EP Spring 2020
Site:	EP NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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MW-6A L1230681-01 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 10:55 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:18	06/24/20 19:18	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 16:28	06/24/20 16:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 16:43	06/24/20 16:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:04	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:16	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 12:21	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 04:13	06/22/20 04:13	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	5	06/21/20 07:42	06/21/20 07:42	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	10	06/22/20 00:16	06/25/20 06:53	CAG	Mt. Juliet, TN

MW-120 L1230681-02 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 11:45 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:19	06/24/20 19:19	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 16:58	06/24/20 16:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 17:13	06/24/20 17:13	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:22	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:19	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 12:25	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 04:33	06/22/20 04:33	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	5	06/21/20 08:02	06/21/20 08:02	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 02:34	CAG	Mt. Juliet, TN

MW-121 L1230681-03 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 12:30 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:20	06/24/20 19:20	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 17:28	06/24/20 17:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 17:43	06/24/20 17:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:26	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 12:28	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 04:54	06/22/20 04:54	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 02:59	06/21/20 02:59	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 03:00	CAG	Mt. Juliet, TN

MW-74 L1230681-04 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 13:15 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	20	06/24/20 19:21	06/24/20 19:21	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 03:56	06/25/20 03:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 04:11	06/25/20 04:11	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:29	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:26	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 12:32	LAT	Mt. Juliet, TN

MW-74 L1230681-04 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 13:15 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 05:14	06/22/20 05:14	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 03:19	06/21/20 03:19	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	5	06/22/20 00:16	06/25/20 17:15	TJD	Mt. Juliet, TN

MW-73 L1230681-05 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 14:20 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:26	06/24/20 19:26	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 04:26	06/25/20 04:26	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 04:41	06/25/20 04:41	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:33	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:29	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 12:36	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 05:35	06/22/20 05:35	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 03:39	06/21/20 03:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 03:26	CAG	Mt. Juliet, TN

MW-72 L1230681-06 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 16:50 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:28	06/24/20 19:28	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 19:28	06/24/20 19:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 19:43	06/24/20 19:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:37	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 12:39	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 05:55	06/22/20 05:55	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 03:59	06/21/20 03:59	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 16:24	TJD	Mt. Juliet, TN

OCD-6 L1230681-07 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 16:05 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:29	06/24/20 19:29	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 19:58	06/24/20 19:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 20:13	06/24/20 20:13	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:40	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:36	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 12:43	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 06:16	06/22/20 06:16	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 04:19	06/21/20 04:19	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 04:18	CAG	Mt. Juliet, TN

OCD-7AR L1230681-08 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 15:10 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:30	06/24/20 19:30	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 20:28	06/24/20 20:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 20:43	06/24/20 20:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:44	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:40	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 13:02	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 06:36	06/22/20 06:36	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 04:39	06/21/20 04:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 04:44	CAG	Mt. Juliet, TN

MW-88 L1230681-09 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 17:25 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:34	06/24/20 19:34	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 20:58	06/24/20 20:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 21:13	06/24/20 21:13	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:48	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:43	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 13:05	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 06:57	06/22/20 06:57	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 05:00	06/21/20 05:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496547	1	06/22/20 00:16	06/25/20 16:50	TJD	Mt. Juliet, TN

MW-4A L1230681-10 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 15:55 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:35	06/24/20 19:35	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 21:58	06/24/20 21:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 22:12	06/24/20 22:12	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:51	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 01:53	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 13:10	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 07:17	06/22/20 07:17	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 05:20	06/21/20 05:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 09:08	CAG	Mt. Juliet, TN

MW-5A L1230681-11 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 14:50 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:36	06/24/20 19:36	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 22:27	06/24/20 22:27	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 22:42	06/24/20 22:42	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 19:55	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:10	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 13:13	LAT	Mt. Juliet, TN

MW-5A L1230681-11 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 14:50 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 07:38	06/22/20 07:38	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 05:40	06/21/20 05:40	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 00:58	CAG	Mt. Juliet, TN

MW-7A L1230681-12 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 13:45 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:38	06/24/20 19:38	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 22:57	06/24/20 22:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 23:12	06/24/20 23:12	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:08	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:14	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 13:17	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 07:58	06/22/20 07:58	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 06:00	06/21/20 06:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 01:23	CAG	Mt. Juliet, TN

OCD-8A L1230681-13 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 12:50 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:43	06/24/20 19:43	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:20	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/24/20 23:42	06/24/20 23:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	5	06/24/20 23:27	06/24/20 23:27	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:52	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495458	1	06/22/20 11:25	06/22/20 19:03	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:28	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495365	1	06/25/20 07:36	06/25/20 12:13	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:11	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 13:21	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 08:19	06/22/20 08:19	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496261	1	06/21/20 06:21	06/21/20 06:21	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 01:49	CAG	Mt. Juliet, TN

MW-87 L1230681-14 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 15:45 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:44	06/24/20 19:44	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/24/20 23:57	06/24/20 23:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 00:12	06/25/20 00:12	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:15	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	1	06/24/20 12:59	06/25/20 00:20	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495379	5	06/24/20 12:59	06/25/20 13:24	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 08:39	06/22/20 08:39	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 19:18	06/21/20 19:18	JCP	Mt. Juliet, TN

MW-87 L1230681-14 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 06/16/20 15:45
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 02:15	CAG	Mt. Juliet, TN

MW-18A L1230681-15 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 06/16/20 16:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496361	1	06/23/20 18:40	06/23/20 21:21	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:47	06/24/20 19:47	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:21	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 01:12	06/25/20 01:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	5	06/25/20 00:57	06/25/20 00:57	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:54	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495458	1	06/22/20 11:25	06/22/20 19:05	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:31	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:01	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:19	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	5	06/24/20 12:00	06/25/20 13:17	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 19:39	06/21/20 19:39	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 02:41	CAG	Mt. Juliet, TN

MW-70 L1230681-16 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 06/16/20 18:00
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:48	06/24/20 19:48	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 01:27	06/25/20 01:27	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 01:42	06/25/20 01:42	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:22	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 13:31	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496530	1	06/22/20 09:00	06/22/20 09:00	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 20:00	06/21/20 20:00	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 03:07	CAG	Mt. Juliet, TN

MW-124 L1230681-17 GW

Collected by: Scott Ude/HMI Team
Collected date/time: 06/16/20 17:10
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:49	06/24/20 19:49	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 02:11	06/25/20 02:11	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	5	06/25/20 01:56	06/25/20 01:56	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:26	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	5	06/24/20 12:00	06/25/20 13:34	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 03:36	06/22/20 03:36	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 20:20	06/21/20 20:20	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 03:32	CAG	Mt. Juliet, TN

DUP-EP-01 L1230681-18 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 12:00 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1495505	1	06/24/20 19:50	06/24/20 19:50	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 02:26	06/25/20 02:26	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	100	06/25/20 02:41	06/25/20 02:41	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495348	1	06/24/20 16:12	06/24/20 20:30	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	5	06/24/20 12:00	06/25/20 13:37	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 03:57	06/22/20 03:57	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 20:41	06/21/20 20:41	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 03:58	CAG	Mt. Juliet, TN

EB-EP-01 L1230681-19 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 13:30 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1496490	1	06/23/20 18:58	06/23/20 18:58	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 02:56	06/25/20 02:56	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 20:53	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 13:41	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 02:34	06/22/20 02:34	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 17:35	06/21/20 17:35	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 04:24	CAG	Mt. Juliet, TN

EB-EP-02 L1230681-20 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 17:25 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1496490	1	06/23/20 19:00	06/23/20 19:00	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497335	1	06/25/20 03:11	06/25/20 03:11	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 13:58	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 02:55	06/22/20 02:55	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 17:56	06/21/20 17:56	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 04:50	CAG	Mt. Juliet, TN

EB-EP-03 L1230681-21 GW

Collected by: Scott Ude/HMI Team | Collected date/time: 06/16/20 15:05 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1496490	1	06/23/20 19:01	06/23/20 19:01	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 03:28	06/24/20 03:28	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:11	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 03:15	06/22/20 03:15	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 18:17	06/21/20 18:17	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 05:15	CAG	Mt. Juliet, TN

TRIP BLANK-EP-02 L1230681-22 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude/HMI Team	06/16/20 00:00	06/18/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 16:54	06/21/20 16:54	JCP	Mt. Juliet, TN

TRIP BLANK-EP-04 L1230681-23 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude/HMI Team	06/16/20 00:00	06/18/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 17:14	06/21/20 17:14	JCP	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3640		14.1	50.0	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:18	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	669		37.9	100	100	06/24/2020 16:43	WG1497335
Fluoride	1.55		0.0640	0.150	1	06/24/2020 16:28	WG1497335
Sulfate	1670		59.4	500	100	06/24/2020 16:43	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00491		0.000735	0.00200	1	06/25/2020 01:16	WG1495379
Arsenic,Dissolved	0.00472		0.000735	0.00200	1	06/24/2020 19:04	WG1495348
Barium	0.0121	J	0.00778	0.0200	1	06/25/2020 01:16	WG1495379
Barium,Dissolved	0.0127	J	0.00778	0.0200	1	06/24/2020 19:04	WG1495348
Calcium	290		0.480	1.00	1	06/25/2020 01:16	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:16	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:04	WG1495348
Iron	0.472		0.0489	0.100	1	06/25/2020 01:16	WG1495379
Iron,Dissolved	0.378		0.0489	0.100	1	06/24/2020 19:04	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:16	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:04	WG1495348
Manganese	0.259		0.00132	0.00500	1	06/25/2020 01:16	WG1495379
Manganese,Dissolved	0.262		0.00132	0.00500	1	06/24/2020 19:04	WG1495348
Potassium	1.18	J	0.534	2.00	1	06/25/2020 01:16	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:16	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 19:04	WG1495348
Sodium	670		0.630	2.00	1	06/25/2020 12:21	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.192		0.0314	0.100	1	06/22/2020 04:13	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*78.0-120*		*06/22/2020 04:13*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/21/2020 07:42	WG1496261
Benzene	U		0.000471	0.00500	5	06/21/2020 07:42	WG1496261
Bromodichloromethane	U		0.000680	0.00500	5	06/21/2020 07:42	WG1496261
Bromoform	U		0.000645	0.00500	5	06/21/2020 07:42	WG1496261
Bromomethane	U		0.00303	0.0250	5	06/21/2020 07:42	WG1496261
n-Butylbenzene	U		0.000785	0.00500	5	06/21/2020 07:42	WG1496261
sec-Butylbenzene	U		0.000625	0.00500	5	06/21/2020 07:42	WG1496261
Carbon disulfide	U		0.000481	0.00500	5	06/21/2020 07:42	WG1496261
Carbon tetrachloride	U		0.000640	0.00500	5	06/21/2020 07:42	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000580	0.00500	5	06/21/2020 07:42	WG1496261
Chlorodibromomethane	U		0.000700	0.00500	5	06/21/2020 07:42	WG1496261
Chloroethane	U		0.000960	0.0250	5	06/21/2020 07:42	WG1496261
Chloroform	U		0.000555	0.0250	5	06/21/2020 07:42	WG1496261
Chloromethane	U		0.00480	0.0125	5	06/21/2020 07:42	WG1496261
1,2-Dibromoethane	U		0.000630	0.00500	5	06/21/2020 07:42	WG1496261
1,1-Dichloroethane	U		0.000500	0.00500	5	06/21/2020 07:42	WG1496261
1,2-Dichloroethane	U		0.000409	0.00500	5	06/21/2020 07:42	WG1496261
1,1-Dichloroethene	U		0.000940	0.00500	5	06/21/2020 07:42	WG1496261
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/21/2020 07:42	WG1496261
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/21/2020 07:42	WG1496261
1,2-Dichloropropane	U		0.000745	0.00500	5	06/21/2020 07:42	WG1496261
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/21/2020 07:42	WG1496261
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/21/2020 07:42	WG1496261
Ethylbenzene	0.000927	J	0.000685	0.00500	5	06/21/2020 07:42	WG1496261
Isopropylbenzene	U		0.000525	0.00500	5	06/21/2020 07:42	WG1496261
p-Isopropyltoluene	U		0.000600	0.00500	5	06/21/2020 07:42	WG1496261
2-Butanone (MEK)	U		0.00595	0.0500	5	06/21/2020 07:42	WG1496261
2-Hexanone	U		0.00394	0.0500	5	06/21/2020 07:42	WG1496261
Methylene Chloride	0.0101	J	0.00215	0.0250	5	06/21/2020 07:42	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/21/2020 07:42	WG1496261
Methyl tert-butyl ether	U		0.000505	0.00500	5	06/21/2020 07:42	WG1496261
Naphthalene	U		0.00500	0.0250	5	06/21/2020 07:42	WG1496261
n-Propylbenzene	U		0.000497	0.00500	5	06/21/2020 07:42	WG1496261
Styrene	U		0.000590	0.00500	5	06/21/2020 07:42	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/21/2020 07:42	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/21/2020 07:42	WG1496261
Tetrachloroethene	U		0.00150	0.00500	5	06/21/2020 07:42	WG1496261
Toluene	U		0.00139	0.00500	5	06/21/2020 07:42	WG1496261
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/21/2020 07:42	WG1496261
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/21/2020 07:42	WG1496261
Trichloroethene	0.0217		0.000950	0.00500	5	06/21/2020 07:42	WG1496261
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	06/21/2020 07:42	WG1496261
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/21/2020 07:42	WG1496261
Vinyl chloride	U		0.00117	0.00500	5	06/21/2020 07:42	WG1496261
o-Xylene	0.00171	J	0.000870	0.00500	5	06/21/2020 07:42	WG1496261
m&p-Xylene	U		0.00215	0.0100	5	06/21/2020 07:42	WG1496261
Xylenes, Total	0.00171	J	0.000870	0.0150	5	06/21/2020 07:42	WG1496261
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 07:42*	WG1496261
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 07:42*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*06/21/2020 07:42*	WG1496261

Sample Narrative:

L1230681-01 WG1496261: DILUTION DUE TO FOAM

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.86		0.247	1.00	10	06/25/2020 06:53	WG1496547
(S) o-Terphenyl	*90.0*			*31.0-160*		*06/25/2020 06:53*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5500		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:19	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1260		37.9	100	100	06/24/2020 17:13	WG1497335
Fluoride	2.90		0.0640	0.150	1	06/24/2020 16:58	WG1497335
Sulfate	2530		59.4	500	100	06/24/2020 17:13	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00614		0.000735	0.00200	1	06/25/2020 01:19	WG1495379
Arsenic,Dissolved	0.00646		0.000735	0.00200	1	06/24/2020 19:22	WG1495348
Barium	0.00971	J	0.00778	0.0200	1	06/25/2020 01:19	WG1495379
Barium,Dissolved	0.00974	J	0.00778	0.0200	1	06/24/2020 19:22	WG1495348
Calcium	455		0.480	1.00	1	06/25/2020 01:19	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:19	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:22	WG1495348
Iron	2.94		0.0489	0.100	1	06/25/2020 01:19	WG1495379
Iron,Dissolved	3.08		0.0489	0.100	1	06/24/2020 19:22	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:19	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:22	WG1495348
Manganese	0.973		0.00132	0.00500	1	06/25/2020 01:19	WG1495379
Manganese,Dissolved	1.06		0.00132	0.00500	1	06/24/2020 19:22	WG1495348
Potassium	2.23		0.534	2.00	1	06/25/2020 01:19	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:19	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 19:22	WG1495348
Sodium	992		0.630	2.00	1	06/25/2020 12:25	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0458	J	0.0314	0.100	1	06/22/2020 04:33	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.8*			*78.0-120*		*06/22/2020 04:33*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/21/2020 08:02	WG1496261
Benzene	U		0.000471	0.00500	5	06/21/2020 08:02	WG1496261
Bromodichloromethane	U		0.000680	0.00500	5	06/21/2020 08:02	WG1496261
Bromoform	U		0.000645	0.00500	5	06/21/2020 08:02	WG1496261
Bromomethane	U		0.00303	0.0250	5	06/21/2020 08:02	WG1496261
n-Butylbenzene	U		0.000785	0.00500	5	06/21/2020 08:02	WG1496261
sec-Butylbenzene	U		0.000625	0.00500	5	06/21/2020 08:02	WG1496261
Carbon disulfide	U		0.000481	0.00500	5	06/21/2020 08:02	WG1496261
Carbon tetrachloride	U		0.000640	0.00500	5	06/21/2020 08:02	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000580	0.00500	5	06/21/2020 08:02	WG1496261
Chlorodibromomethane	U		0.000700	0.00500	5	06/21/2020 08:02	WG1496261
Chloroethane	U		0.000960	0.0250	5	06/21/2020 08:02	WG1496261
Chloroform	U		0.000555	0.0250	5	06/21/2020 08:02	WG1496261
Chloromethane	U		0.00480	0.0125	5	06/21/2020 08:02	WG1496261
1,2-Dibromoethane	U		0.000630	0.00500	5	06/21/2020 08:02	WG1496261
1,1-Dichloroethane	U		0.000500	0.00500	5	06/21/2020 08:02	WG1496261
1,2-Dichloroethane	U		0.000409	0.00500	5	06/21/2020 08:02	WG1496261
1,1-Dichloroethene	U		0.000940	0.00500	5	06/21/2020 08:02	WG1496261
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/21/2020 08:02	WG1496261
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/21/2020 08:02	WG1496261
1,2-Dichloropropane	U		0.000745	0.00500	5	06/21/2020 08:02	WG1496261
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/21/2020 08:02	WG1496261
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/21/2020 08:02	WG1496261
Ethylbenzene	U		0.000685	0.00500	5	06/21/2020 08:02	WG1496261
Isopropylbenzene	U		0.000525	0.00500	5	06/21/2020 08:02	WG1496261
p-Isopropyltoluene	U		0.000600	0.00500	5	06/21/2020 08:02	WG1496261
2-Butanone (MEK)	U		0.00595	0.0500	5	06/21/2020 08:02	WG1496261
2-Hexanone	U		0.00394	0.0500	5	06/21/2020 08:02	WG1496261
Methylene Chloride	U		0.00215	0.0250	5	06/21/2020 08:02	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/21/2020 08:02	WG1496261
Methyl tert-butyl ether	U		0.000505	0.00500	5	06/21/2020 08:02	WG1496261
Naphthalene	U		0.00500	0.0250	5	06/21/2020 08:02	WG1496261
n-Propylbenzene	U		0.000497	0.00500	5	06/21/2020 08:02	WG1496261
Styrene	U		0.000590	0.00500	5	06/21/2020 08:02	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/21/2020 08:02	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/21/2020 08:02	WG1496261
Tetrachloroethene	U		0.00150	0.00500	5	06/21/2020 08:02	WG1496261
Toluene	U		0.00139	0.00500	5	06/21/2020 08:02	WG1496261
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/21/2020 08:02	WG1496261
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/21/2020 08:02	WG1496261
Trichloroethene	0.00169	J	0.000950	0.00500	5	06/21/2020 08:02	WG1496261
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	06/21/2020 08:02	WG1496261
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/21/2020 08:02	WG1496261
Vinyl chloride	U		0.00117	0.00500	5	06/21/2020 08:02	WG1496261
o-Xylene	U		0.000870	0.00500	5	06/21/2020 08:02	WG1496261
m&p-Xylene	U		0.00215	0.0100	5	06/21/2020 08:02	WG1496261
Xylenes, Total	U		0.000870	0.0150	5	06/21/2020 08:02	WG1496261
(S) Toluene-d8	*108*			*80.0-120*		*06/21/2020 08:02*	WG1496261
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/21/2020 08:02*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*06/21/2020 08:02*	WG1496261

Sample Narrative:

L1230681-02 WG1496261: DILUTION DUE TO FOAM

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.262		0.0247	0.100	1	06/25/2020 02:34	WG1496547
(S) o-Terphenyl	*90.5*			*31.0-160*		*06/25/2020 02:34*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4890		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0855	J	0.0500	0.100	1	06/24/2020 19:20	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	752		37.9	100	100	06/24/2020 17:43	WG1497335
Fluoride	5.05		0.0640	0.150	1	06/24/2020 17:28	WG1497335
Sulfate	2790		59.4	500	100	06/24/2020 17:43	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.131		0.000735	0.00200	1	06/25/2020 01:22	WG1495379
Arsenic,Dissolved	0.0253		0.000735	0.00200	1	06/24/2020 19:26	WG1495348
Barium	0.0115	J	0.00778	0.0200	1	06/25/2020 01:22	WG1495379
Barium,Dissolved	0.0109	J	0.00778	0.0200	1	06/24/2020 19:26	WG1495348
Calcium	560		0.480	1.00	1	06/25/2020 01:22	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:22	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:26	WG1495348
Iron	2.33		0.0489	0.100	1	06/25/2020 01:22	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 19:26	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:22	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:26	WG1495348
Manganese	2.29		0.00132	0.00500	1	06/25/2020 01:22	WG1495379
Manganese,Dissolved	2.16		0.00132	0.00500	1	06/24/2020 19:26	WG1495348
Potassium	2.71		0.534	2.00	1	06/25/2020 01:22	WG1495379
Selenium	0.00453		0.000657	0.00200	1	06/25/2020 01:22	WG1495379
Selenium,Dissolved	0.00388		0.000657	0.00200	1	06/24/2020 19:26	WG1495348
Sodium	613		0.630	2.00	1	06/25/2020 12:28	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 04:54	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.4*			*78.0-120*		*06/22/2020 04:54*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 02:59	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 02:59	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 02:59	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 02:59	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 02:59	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 02:59	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 02:59	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 02:59	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 02:59	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 02:59	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 02:59	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 02:59	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 02:59	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 02:59	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 02:59	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 02:59	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 02:59	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 02:59	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 02:59	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 02:59	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 02:59	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 02:59	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 02:59	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 02:59	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 02:59	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 02:59	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 02:59	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 02:59	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 02:59	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 02:59	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 02:59	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 02:59	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 02:59	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 02:59	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 02:59	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 02:59	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 02:59	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 02:59	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 02:59	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 02:59	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 02:59	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 02:59	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 02:59	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 02:59	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 02:59	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 02:59	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 02:59	WG1496261
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 02:59*	WG1496261
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*06/21/2020 02:59*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*06/21/2020 02:59*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.204		0.0247	0.100	1	06/25/2020 03:00	WG1496547
(S) o-Terphenyl	*77.4*			*31.0-160*		*06/25/2020 03:00*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7180		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	48.4		1.00	2.00	20	06/24/2020 19:21	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1540		37.9	100	100	06/25/2020 04:11	WG1497335
Fluoride	7.75		0.0640	0.150	1	06/25/2020 03:56	WG1497335
Sulfate	4190		59.4	500	100	06/25/2020 04:11	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0552		0.000735	0.00200	1	06/25/2020 01:26	WG1495379
Arsenic,Dissolved	0.0563		0.000735	0.00200	1	06/24/2020 19:29	WG1495348
Barium	0.0160	J	0.00778	0.0200	1	06/25/2020 01:26	WG1495379
Barium,Dissolved	0.0140	J	0.00778	0.0200	1	06/24/2020 19:29	WG1495348
Calcium	507		0.480	1.00	1	06/25/2020 01:26	WG1495379
Chromium	0.00165	J	0.00149	0.00200	1	06/25/2020 01:26	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:29	WG1495348
Iron	0.325		0.0489	0.100	1	06/25/2020 01:26	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 19:29	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:26	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:29	WG1495348
Manganese	1.13		0.00132	0.00500	1	06/25/2020 01:26	WG1495379
Manganese,Dissolved	1.20		0.00132	0.00500	1	06/24/2020 19:29	WG1495348
Potassium	32.7		0.534	2.00	1	06/25/2020 01:26	WG1495379
Selenium	0.151		0.000657	0.00200	1	06/25/2020 01:26	WG1495379
Selenium,Dissolved	0.160		0.000657	0.00200	1	06/24/2020 19:29	WG1495348
Sodium	2260		3.15	10.0	5	06/25/2020 12:32	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.490		0.0314	0.100	1	06/22/2020 05:14	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*92.2*			*78.0-120*		*06/22/2020 05:14*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 03:19	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 03:19	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 03:19	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 03:19	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 03:19	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 03:19	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 03:19	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 03:19	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 03:19	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 03:19	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 03:19	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 03:19	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 03:19	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 03:19	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 03:19	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 03:19	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 03:19	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 03:19	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 03:19	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 03:19	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 03:19	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 03:19	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 03:19	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 03:19	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 03:19	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 03:19	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 03:19	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 03:19	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 03:19	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 03:19	WG1496261
Methyl tert-butyl ether	0.000294	J	0.000101	0.00100	1	06/21/2020 03:19	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 03:19	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 03:19	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 03:19	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 03:19	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 03:19	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 03:19	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 03:19	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 03:19	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 03:19	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 03:19	WG1496261
1,2,4-Trimethylbenzene	0.000772	J	0.000322	0.00100	1	06/21/2020 03:19	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 03:19	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 03:19	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 03:19	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 03:19	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 03:19	WG1496261
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 03:19*	WG1496261
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/21/2020 03:19*	WG1496261
(S) 1,2-Dichloroethane-d4	*93.6*			*70.0-130*		*06/21/2020 03:19*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	21.9		0.123	0.500	5	06/25/2020 17:15	WG1496547
(S) o-Terphenyl	*110*			*31.0-160*		*06/25/2020 17:15*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8860		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:26	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2540		37.9	100	100	06/25/2020 04:41	WG1497335
Fluoride	1.67		0.0640	0.150	1	06/25/2020 04:26	WG1497335
Sulfate	3990		59.4	500	100	06/25/2020 04:41	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0493		0.000735	0.00200	1	06/25/2020 01:29	WG1495379
Arsenic,Dissolved	0.0496		0.000735	0.00200	1	06/24/2020 19:33	WG1495348
Barium	0.00886	J	0.00778	0.0200	1	06/25/2020 01:29	WG1495379
Barium,Dissolved	0.00883	J	0.00778	0.0200	1	06/24/2020 19:33	WG1495348
Calcium	561		0.480	1.00	1	06/25/2020 01:29	WG1495379
Chromium	0.00186	J	0.00149	0.00200	1	06/25/2020 01:29	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:33	WG1495348
Iron	2.78		0.0489	0.100	1	06/25/2020 01:29	WG1495379
Iron,Dissolved	2.27		0.0489	0.100	1	06/24/2020 19:33	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:29	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:33	WG1495348
Manganese	1.89		0.00132	0.00500	1	06/25/2020 01:29	WG1495379
Manganese,Dissolved	2.12		0.00132	0.00500	1	06/24/2020 19:33	WG1495348
Potassium	2.29		0.534	2.00	1	06/25/2020 01:29	WG1495379
Selenium	0.00195	J	0.000657	0.00200	1	06/25/2020 01:29	WG1495379
Selenium,Dissolved	0.00193	J	0.000657	0.00200	1	06/24/2020 19:33	WG1495348
Sodium	2410		3.15	10.0	5	06/25/2020 12:36	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.408		0.0314	0.100	1	06/22/2020 05:35	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*91.8*			*78.0-120*		*06/22/2020 05:35*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 03:39	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 03:39	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 03:39	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 03:39	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 03:39	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 03:39	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 03:39	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 03:39	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 03:39	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 03:39	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 03:39	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 03:39	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 03:39	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 03:39	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 03:39	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 03:39	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 03:39	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 03:39	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 03:39	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 03:39	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 03:39	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 03:39	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 03:39	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 03:39	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 03:39	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 03:39	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 03:39	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 03:39	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 03:39	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 03:39	WG1496261
Methyl tert-butyl ether	0.00105		0.000101	0.00100	1	06/21/2020 03:39	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 03:39	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 03:39	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 03:39	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 03:39	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 03:39	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 03:39	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 03:39	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 03:39	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 03:39	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 03:39	WG1496261
1,2,4-Trimethylbenzene	0.000589	J	0.000322	0.00100	1	06/21/2020 03:39	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 03:39	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 03:39	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 03:39	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 03:39	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 03:39	WG1496261
(S) Toluene-d8	*109*			*80.0-120*		*06/21/2020 03:39*	WG1496261
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/21/2020 03:39*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.5*			*70.0-130*		*06/21/2020 03:39*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.86		0.0247	0.100	1	06/25/2020 03:26	WG1496547
(S) o-Terphenyl	*101*			*31.0-160*		*06/25/2020 03:26*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8060		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.645		0.0500	0.100	1	06/24/2020 19:28	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2830		37.9	100	100	06/24/2020 19:43	WG1497335
Fluoride	5.71		0.0640	0.150	1	06/24/2020 19:28	WG1497335
Sulfate	2810		59.4	500	100	06/24/2020 19:43	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00851		0.000735	0.00200	1	06/25/2020 01:33	WG1495379
Arsenic,Dissolved	0.00634		0.000735	0.00200	1	06/24/2020 19:37	WG1495348
Barium	0.0124	J	0.00778	0.0200	1	06/25/2020 01:33	WG1495379
Barium,Dissolved	0.0141	J	0.00778	0.0200	1	06/24/2020 19:37	WG1495348
Calcium	627		0.480	1.00	1	06/25/2020 01:33	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:33	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:37	WG1495348
Iron	1.99		0.0489	0.100	1	06/25/2020 01:33	WG1495379
Iron,Dissolved	1.01		0.0489	0.100	1	06/24/2020 19:37	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:33	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:37	WG1495348
Manganese	1.91		0.00132	0.00500	1	06/25/2020 01:33	WG1495379
Manganese,Dissolved	2.14		0.00132	0.00500	1	06/24/2020 19:37	WG1495348
Potassium	6.56		0.534	2.00	1	06/25/2020 01:33	WG1495379
Selenium	0.00175	J	0.000657	0.00200	1	06/25/2020 01:33	WG1495379
Selenium,Dissolved	0.000890	J	0.000657	0.00200	1	06/24/2020 19:37	WG1495348
Sodium	1730		3.15	10.0	5	06/25/2020 12:39	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0544	J	0.0314	0.100	1	06/22/2020 05:55	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*91.6*			*78.0-120*		*06/22/2020 05:55*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 03:59	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 03:59	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 03:59	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 03:59	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 03:59	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 03:59	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 03:59	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 03:59	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 03:59	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 03:59	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 03:59	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 03:59	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 03:59	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 03:59	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 03:59	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 03:59	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 03:59	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 03:59	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 03:59	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 03:59	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 03:59	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 03:59	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 03:59	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 03:59	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 03:59	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 03:59	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 03:59	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 03:59	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 03:59	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 03:59	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 03:59	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 03:59	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 03:59	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 03:59	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 03:59	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 03:59	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 03:59	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 03:59	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 03:59	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 03:59	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 03:59	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 03:59	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 03:59	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 03:59	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 03:59	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 03:59	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 03:59	WG1496261
(S) Toluene-d8	*108*			*80.0-120*		*06/21/2020 03:59*	WG1496261
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/21/2020 03:59*	WG1496261
(S) 1,2-Dichloroethane-d4	*96.8*			*70.0-130*		*06/21/2020 03:59*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.303		0.0247	0.100	1	06/25/2020 16:24	WG1496547
(S) o-Terphenyl	*89.5*			*31.0-160*		*06/25/2020 16:24*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10800		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:29	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4880		37.9	100	100	06/24/2020 20:13	WG1497335
Fluoride	2.04		0.0640	0.150	1	06/24/2020 19:58	WG1497335
Sulfate	3160		59.4	500	100	06/24/2020 20:13	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00686		0.000735	0.00200	1	06/25/2020 01:36	WG1495379
Arsenic,Dissolved	0.00577		0.000735	0.00200	1	06/24/2020 19:40	WG1495348
Barium	0.0213		0.00778	0.0200	1	06/25/2020 01:36	WG1495379
Barium,Dissolved	0.0228		0.00778	0.0200	1	06/24/2020 19:40	WG1495348
Calcium	918		0.480	1.00	1	06/25/2020 01:36	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:36	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:40	WG1495348
Iron	2.80		0.0489	0.100	1	06/25/2020 01:36	WG1495379
Iron,Dissolved	2.32		0.0489	0.100	1	06/24/2020 19:40	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:36	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:40	WG1495348
Manganese	2.28		0.00132	0.00500	1	06/25/2020 01:36	WG1495379
Manganese,Dissolved	2.52		0.00132	0.00500	1	06/24/2020 19:40	WG1495348
Potassium	15.0		0.534	2.00	1	06/25/2020 01:36	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:36	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 19:40	WG1495348
Sodium	2710		3.15	10.0	5	06/25/2020 12:43	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.134		0.0314	0.100	1	06/22/2020 06:16	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*92.3*			*78.0-120*		*06/22/2020 06:16*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 04:19	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 04:19	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 04:19	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 04:19	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 04:19	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 04:19	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 04:19	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 04:19	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 04:19	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 04:19	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 04:19	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 04:19	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 04:19	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 04:19	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 04:19	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 04:19	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 04:19	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 04:19	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 04:19	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 04:19	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 04:19	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 04:19	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 04:19	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 04:19	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 04:19	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 04:19	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 04:19	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 04:19	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 04:19	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 04:19	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 04:19	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 04:19	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 04:19	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 04:19	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 04:19	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 04:19	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 04:19	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 04:19	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 04:19	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 04:19	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 04:19	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 04:19	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 04:19	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 04:19	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 04:19	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 04:19	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 04:19	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 04:19*	WG1496261
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 04:19*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*06/21/2020 04:19*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.517		0.0247	0.100	1	06/25/2020 04:18	WG1496547
(S) o-Terphenyl	*86.8*			*31.0-160*		*06/25/2020 04:18*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	9740		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:30	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2990		37.9	100	100	06/24/2020 20:43	WG1497335
Fluoride	2.13		0.0640	0.150	1	06/24/2020 20:28	WG1497335
Sulfate	3990		59.4	500	100	06/24/2020 20:43	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0978		0.000735	0.00200	1	06/25/2020 01:40	WG1495379
Arsenic,Dissolved	0.101		0.000735	0.00200	1	06/24/2020 19:44	WG1495348
Barium	0.0138	J	0.00778	0.0200	1	06/25/2020 01:40	WG1495379
Barium,Dissolved	0.0154	J	0.00778	0.0200	1	06/24/2020 19:44	WG1495348
Calcium	619		0.480	1.00	1	06/25/2020 01:40	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:40	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:44	WG1495348
Iron	9.81		0.0489	0.100	1	06/25/2020 01:40	WG1495379
Iron,Dissolved	10.3		0.0489	0.100	1	06/24/2020 19:44	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:40	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:44	WG1495348
Manganese	2.62		0.00132	0.00500	1	06/25/2020 01:40	WG1495379
Manganese,Dissolved	2.92		0.00132	0.00500	1	06/24/2020 19:44	WG1495348
Potassium	6.10		0.534	2.00	1	06/25/2020 01:40	WG1495379
Selenium	0.00152	J	0.000657	0.00200	1	06/25/2020 01:40	WG1495379
Selenium,Dissolved	0.00126	J	0.000657	0.00200	1	06/24/2020 19:44	WG1495348
Sodium	2520		3.15	10.0	5	06/25/2020 13:02	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.637		0.0314	0.100	1	06/22/2020 06:36	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*78.0-120*		*06/22/2020 06:36*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 04:39	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 04:39	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 04:39	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 04:39	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 04:39	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 04:39	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 04:39	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 04:39	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 04:39	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 04:39	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 04:39	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 04:39	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 04:39	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 04:39	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 04:39	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 04:39	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 04:39	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 04:39	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 04:39	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 04:39	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 04:39	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 04:39	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 04:39	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 04:39	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 04:39	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 04:39	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 04:39	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 04:39	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 04:39	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 04:39	WG1496261
Methyl tert-butyl ether	0.000944	J	0.000101	0.00100	1	06/21/2020 04:39	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 04:39	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 04:39	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 04:39	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 04:39	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 04:39	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 04:39	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 04:39	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 04:39	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 04:39	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 04:39	WG1496261
1,2,4-Trimethylbenzene	0.000452	J	0.000322	0.00100	1	06/21/2020 04:39	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 04:39	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 04:39	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 04:39	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 04:39	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 04:39	WG1496261
(S) Toluene-d8	*108*			*80.0-120*		*06/21/2020 04:39*	WG1496261
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 04:39*	WG1496261
(S) 1,2-Dichloroethane-d4	*93.2*			*70.0-130*		*06/21/2020 04:39*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.21		0.0247	0.100	1	06/25/2020 04:44	WG1496547
(S) o-Terphenyl	*104*			*31.0-160*		*06/25/2020 04:44*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5240		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:34	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1510		37.9	100	100	06/24/2020 21:13	WG1497335
Fluoride	0.951		0.0640	0.150	1	06/24/2020 20:58	WG1497335
Sulfate	2040		59.4	500	100	06/24/2020 21:13	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00559		0.000735	0.00200	1	06/25/2020 01:43	WG1495379
Arsenic,Dissolved	0.00595		0.000735	0.00200	1	06/24/2020 19:48	WG1495348
Barium	0.00971	J	0.00778	0.0200	1	06/25/2020 01:43	WG1495379
Barium,Dissolved	0.0115	J	0.00778	0.0200	1	06/24/2020 19:48	WG1495348
Calcium	406		0.480	1.00	1	06/25/2020 01:43	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:43	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:48	WG1495348
Iron	0.0546	J	0.0489	0.100	1	06/25/2020 01:43	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 19:48	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:43	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:48	WG1495348
Manganese	0.807		0.00132	0.00500	1	06/25/2020 01:43	WG1495379
Manganese,Dissolved	0.869		0.00132	0.00500	1	06/24/2020 19:48	WG1495348
Potassium	2.83		0.534	2.00	1	06/25/2020 01:43	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:43	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 19:48	WG1495348
Sodium	997		0.630	2.00	1	06/25/2020 13:05	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0434	J	0.0314	0.100	1	06/22/2020 06:57	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*78.0-120*		*06/22/2020 06:57*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 05:00	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 05:00	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 05:00	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 05:00	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 05:00	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 05:00	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 05:00	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 05:00	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 05:00	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 05:00	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 05:00	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 05:00	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 05:00	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 05:00	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 05:00	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 05:00	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 05:00	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 05:00	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 05:00	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 05:00	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 05:00	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 05:00	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 05:00	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 05:00	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 05:00	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 05:00	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 05:00	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 05:00	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 05:00	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 05:00	WG1496261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 05:00	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 05:00	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 05:00	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 05:00	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 05:00	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 05:00	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 05:00	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 05:00	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 05:00	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 05:00	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 05:00	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 05:00	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 05:00	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 05:00	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 05:00	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 05:00	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 05:00	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 05:00*	WG1496261
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 05:00*	WG1496261
(S) 1,2-Dichloroethane-d4	*91.8*			*70.0-130*		*06/21/2020 05:00*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.317		0.0247	0.100	1	06/25/2020 16:50	WG1496547
(S) o-Terphenyl	*93.7*			*31.0-160*		*06/25/2020 16:50*	WG1496547

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4870		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:35	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1440		37.9	100	100	06/24/2020 22:12	WG1497335
Fluoride	1.98		0.0640	0.150	1	06/24/2020 21:58	WG1497335
Sulfate	1890		59.4	500	100	06/24/2020 22:12	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.111		0.000735	0.00200	1	06/25/2020 01:53	WG1495379
Arsenic,Dissolved	0.104		0.000735	0.00200	1	06/24/2020 19:51	WG1495348
Barium	0.0125	J	0.00778	0.0200	1	06/25/2020 01:53	WG1495379
Barium,Dissolved	0.0125	J	0.00778	0.0200	1	06/24/2020 19:51	WG1495348
Calcium	403		0.480	1.00	1	06/25/2020 01:53	WG1495379
Chromium	U		0.00149	0.00200	1	06/25/2020 01:53	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:51	WG1495348
Iron	2.55		0.0489	0.100	1	06/25/2020 01:53	WG1495379
Iron,Dissolved	2.43		0.0489	0.100	1	06/24/2020 19:51	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 01:53	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:51	WG1495348
Manganese	1.79		0.00132	0.00500	1	06/25/2020 01:53	WG1495379
Manganese,Dissolved	1.84		0.00132	0.00500	1	06/24/2020 19:51	WG1495348
Potassium	4.72		0.534	2.00	1	06/25/2020 01:53	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 01:53	WG1495379
Selenium,Dissolved	0.00109	J	0.000657	0.00200	1	06/24/2020 19:51	WG1495348
Sodium	962		0.630	2.00	1	06/25/2020 13:10	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.377		0.0314	0.100	1	06/22/2020 07:17	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*06/22/2020 07:17*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 05:20	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 05:20	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 05:20	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 05:20	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 05:20	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 05:20	WG1496261
sec-Butylbenzene	0.000326	J	0.000125	0.00100	1	06/21/2020 05:20	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 05:20	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 05:20	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 05:20	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 05:20	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 05:20	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 05:20	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 05:20	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 05:20	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 05:20	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 05:20	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 05:20	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 05:20	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 05:20	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 05:20	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 05:20	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 05:20	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 05:20	WG1496261
Isopropylbenzene	0.00134		0.000105	0.00100	1	06/21/2020 05:20	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 05:20	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 05:20	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 05:20	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 05:20	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 05:20	WG1496261
Methyl tert-butyl ether	0.000195	J	0.000101	0.00100	1	06/21/2020 05:20	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 05:20	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 05:20	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 05:20	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 05:20	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 05:20	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 05:20	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 05:20	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 05:20	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 05:20	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 05:20	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 05:20	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 05:20	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 05:20	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 05:20	WG1496261
m&p-Xylene	0.000627	J	0.000430	0.00200	1	06/21/2020 05:20	WG1496261
Xylenes, Total	0.000627	J	0.000174	0.00300	1	06/21/2020 05:20	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 05:20*	WG1496261
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 05:20*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*06/21/2020 05:20*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.07		0.0247	0.100	1	06/23/2020 09:08	WG1496548
(S) o-Terphenyl	*124*			*31.0-160*		*06/23/2020 09:08*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7460		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:36	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1810		37.9	100	100	06/24/2020 22:42	WG1497335
Fluoride	3.40		0.0640	0.150	1	06/24/2020 22:27	WG1497335
Sulfate	3550		59.4	500	100	06/24/2020 22:42	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.195		0.000735	0.00200	1	06/25/2020 00:10	WG1495379
Arsenic,Dissolved	0.192		0.000735	0.00200	1	06/24/2020 19:55	WG1495348
Barium	0.0153	J	0.00778	0.0200	1	06/25/2020 00:10	WG1495379
Barium,Dissolved	0.0150	J	0.00778	0.0200	1	06/24/2020 19:55	WG1495348
Calcium	286		0.480	1.00	1	06/25/2020 00:10	WG1495379
Chromium	0.00159	J	0.00149	0.00200	1	06/25/2020 00:10	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 19:55	WG1495348
Iron	3.57		0.0489	0.100	1	06/25/2020 00:10	WG1495379
Iron,Dissolved	3.70		0.0489	0.100	1	06/24/2020 19:55	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 00:10	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 19:55	WG1495348
Manganese	0.653		0.00132	0.00500	1	06/25/2020 00:10	WG1495379
Manganese,Dissolved	0.725		0.00132	0.00500	1	06/24/2020 19:55	WG1495348
Potassium	5.65		0.534	2.00	1	06/25/2020 00:10	WG1495379
Selenium	0.00116	J	0.000657	0.00200	1	06/25/2020 00:10	WG1495379
Selenium,Dissolved	0.00136	J	0.000657	0.00200	1	06/24/2020 19:55	WG1495348
Sodium	2040		3.15	10.0	5	06/25/2020 13:13	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.959		0.0314	0.100	1	06/22/2020 07:38	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*78.0-120*		*06/22/2020 07:38*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 05:40	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 05:40	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 05:40	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 05:40	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 05:40	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 05:40	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 05:40	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 05:40	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 05:40	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 05:40	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 05:40	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 05:40	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 05:40	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 05:40	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 05:40	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 05:40	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 05:40	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 05:40	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 05:40	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 05:40	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 05:40	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 05:40	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 05:40	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 05:40	WG1496261
Isopropylbenzene	0.000800	J	0.000105	0.00100	1	06/21/2020 05:40	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 05:40	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 05:40	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 05:40	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 05:40	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 05:40	WG1496261
Methyl tert-butyl ether	0.000812	J	0.000101	0.00100	1	06/21/2020 05:40	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 05:40	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 05:40	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 05:40	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 05:40	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 05:40	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 05:40	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 05:40	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 05:40	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 05:40	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 05:40	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 05:40	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 05:40	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 05:40	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 05:40	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 05:40	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 05:40	WG1496261
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 05:40*	WG1496261
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/21/2020 05:40*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*		*06/21/2020 05:40*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.01		0.0247	0.100	1	06/23/2020 00:58	WG1496548
(S) o-Terphenyl	*109*			*31.0-160*		*06/23/2020 00:58*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6630		28.2	100	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:38	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2000		37.9	100	100	06/24/2020 23:12	WG1497335
Fluoride	1.20		0.0640	0.150	1	06/24/2020 22:57	WG1497335
Sulfate	2670		59.4	500	100	06/24/2020 23:12	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0158		0.000735	0.00200	1	06/25/2020 00:14	WG1495379
Arsenic,Dissolved	0.0163		0.000735	0.00200	1	06/24/2020 20:08	WG1495348
Barium	0.0135	J	0.00778	0.0200	1	06/25/2020 00:14	WG1495379
Barium,Dissolved	0.0139	J	0.00778	0.0200	1	06/24/2020 20:08	WG1495348
Calcium	345		0.480	1.00	1	06/25/2020 00:14	WG1495379
Chromium	0.00168	J	0.00149	0.00200	1	06/25/2020 00:14	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:08	WG1495348
Iron	1.86		0.0489	0.100	1	06/25/2020 00:14	WG1495379
Iron,Dissolved	1.99		0.0489	0.100	1	06/24/2020 20:08	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 00:14	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:08	WG1495348
Manganese	0.384		0.00132	0.00500	1	06/25/2020 00:14	WG1495379
Manganese,Dissolved	0.421		0.00132	0.00500	1	06/24/2020 20:08	WG1495348
Potassium	3.28		0.534	2.00	1	06/25/2020 00:14	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 00:14	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:08	WG1495348
Sodium	1560		3.15	10.0	5	06/25/2020 13:17	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.240		0.0314	0.100	1	06/22/2020 07:58	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*78.0-120*		*06/22/2020 07:58*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 06:00	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 06:00	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 06:00	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 06:00	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 06:00	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 06:00	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 06:00	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 06:00	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 06:00	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 06:00	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 06:00	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 06:00	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 06:00	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 06:00	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 06:00	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 06:00	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 06:00	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 06:00	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 06:00	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 06:00	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 06:00	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 06:00	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 06:00	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 06:00	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 06:00	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 06:00	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 06:00	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 06:00	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 06:00	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 06:00	WG1496261
Methyl tert-butyl ether	0.000858	J	0.000101	0.00100	1	06/21/2020 06:00	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 06:00	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 06:00	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 06:00	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 06:00	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 06:00	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 06:00	WG1496261
Toluene	U		0.000278	0.00100	1	06/21/2020 06:00	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 06:00	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 06:00	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 06:00	WG1496261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 06:00	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 06:00	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 06:00	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 06:00	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 06:00	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 06:00	WG1496261
(S) Toluene-d8	*109*			*80.0-120*		*06/21/2020 06:00*	WG1496261
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*06/21/2020 06:00*	WG1496261
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*06/21/2020 06:00*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.928		0.0247	0.100	1	06/23/2020 01:23	WG1496548
(S) o-Terphenyl	*101*			*31.0-160*		*06/23/2020 01:23*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	12600		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:43	WG1495505

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:20	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5120		37.9	100	100	06/24/2020 23:42	WG1497335
Fluoride	2.01		0.320	0.750	5	06/24/2020 23:27	WG1497335
Sulfate	4510		59.4	500	100	06/24/2020 23:42	WG1497335

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/22/2020 19:03	WG1495458
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:52	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.958		0.0254	0.200	1	06/25/2020 12:13	WG1495365
Boron,Dissolved	0.980		0.0254	0.200	1	06/25/2020 12:28	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0630		0.000735	0.00200	1	06/25/2020 00:17	WG1495379
Arsenic,Dissolved	0.0537		0.000735	0.00200	1	06/24/2020 20:11	WG1495348
Barium	0.0160	J	0.00778	0.0200	1	06/25/2020 00:17	WG1495379
Barium,Dissolved	0.0180	J	0.00778	0.0200	1	06/24/2020 20:11	WG1495348
Cadmium	U		0.000478	0.00100	1	06/25/2020 00:17	WG1495379
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 20:11	WG1495348
Calcium	665		0.480	1.00	1	06/25/2020 00:17	WG1495379
Chromium	0.00323		0.00149	0.00200	1	06/25/2020 00:17	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:11	WG1495348
Cobalt	0.00175	J	0.000477	0.00200	1	06/25/2020 00:17	WG1495379
Cobalt,Dissolved	0.00167	J	0.000477	0.00200	1	06/24/2020 20:11	WG1495348
Iron	4.76		0.0489	0.100	1	06/25/2020 00:17	WG1495379
Iron,Dissolved	3.53		0.0489	0.100	1	06/24/2020 20:11	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 00:17	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:11	WG1495348
Manganese	1.88		0.00132	0.00500	1	06/25/2020 00:17	WG1495379
Manganese,Dissolved	2.00		0.00132	0.00500	1	06/24/2020 20:11	WG1495348
Nickel	0.0670		0.000952	0.00200	1	06/25/2020 00:17	WG1495379
Nickel,Dissolved	0.0379		0.000952	0.00200	1	06/24/2020 20:11	WG1495348

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	8.85		0.534	2.00	1	06/25/2020 00:17	WG1495379
Selenium	0.00134	J	0.000657	0.00200	1	06/25/2020 00:17	WG1495379
Selenium,Dissolved	0.00187	J	0.000657	0.00200	1	06/24/2020 20:11	WG1495348
Sodium	3440		3.15	10.0	5	06/25/2020 13:21	WG1495379
Uranium	U		0.00754	0.0200	1	06/25/2020 00:17	WG1495379
Uranium,Dissolved	U		0.00754	0.0200	1	06/24/2020 20:11	WG1495348
Vanadium	U		0.000986	0.00500	1	06/25/2020 00:17	WG1495379
Vanadium,Dissolved	U		0.000986	0.00500	1	06/24/2020 20:11	WG1495348

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.419		0.0314	0.100	1	06/22/2020 08:19	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*78.0-120*		*06/22/2020 08:19*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 06:21	WG1496261
Benzene	U		0.0000941	0.00100	1	06/21/2020 06:21	WG1496261
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 06:21	WG1496261
Bromoform	U		0.000129	0.00100	1	06/21/2020 06:21	WG1496261
Bromomethane	U		0.000605	0.00500	1	06/21/2020 06:21	WG1496261
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 06:21	WG1496261
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 06:21	WG1496261
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 06:21	WG1496261
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 06:21	WG1496261
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 06:21	WG1496261
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 06:21	WG1496261
Chloroethane	U		0.000192	0.00500	1	06/21/2020 06:21	WG1496261
Chloroform	U		0.000111	0.00500	1	06/21/2020 06:21	WG1496261
Chloromethane	U		0.000960	0.00250	1	06/21/2020 06:21	WG1496261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 06:21	WG1496261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 06:21	WG1496261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 06:21	WG1496261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 06:21	WG1496261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 06:21	WG1496261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 06:21	WG1496261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 06:21	WG1496261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 06:21	WG1496261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 06:21	WG1496261
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 06:21	WG1496261
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 06:21	WG1496261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 06:21	WG1496261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 06:21	WG1496261
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 06:21	WG1496261
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 06:21	WG1496261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 06:21	WG1496261
Methyl tert-butyl ether	0.00275		0.000101	0.00100	1	06/21/2020 06:21	WG1496261
Naphthalene	U		0.00100	0.00500	1	06/21/2020 06:21	WG1496261
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 06:21	WG1496261
Styrene	U		0.000118	0.00100	1	06/21/2020 06:21	WG1496261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 06:21	WG1496261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 06:21	WG1496261
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 06:21	WG1496261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	06/21/2020 06:21	WG1496261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 06:21	WG1496261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 06:21	WG1496261
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 06:21	WG1496261
1,2,4-Trimethylbenzene	0.000366	J	0.000322	0.00100	1	06/21/2020 06:21	WG1496261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 06:21	WG1496261
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 06:21	WG1496261
o-Xylene	U		0.000174	0.00100	1	06/21/2020 06:21	WG1496261
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 06:21	WG1496261
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 06:21	WG1496261
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 06:21*	WG1496261
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/21/2020 06:21*	WG1496261
(S) 1,2-Dichloroethane-d4	*92.0*			*70.0-130*		*06/21/2020 06:21*	WG1496261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	2.19		0.0247	0.100	1	06/23/2020 01:49	WG1496548
(S) o-Terphenyl	*107*			*31.0-160*		*06/23/2020 01:49*	WG1496548

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	12500		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:44	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4070		37.9	100	100	06/25/2020 00:12	WG1497335
Fluoride	1.41		0.0640	0.150	1	06/24/2020 23:57	WG1497335
Sulfate	4840		59.4	500	100	06/25/2020 00:12	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00424		0.000735	0.00200	1	06/25/2020 00:20	WG1495379
Arsenic,Dissolved	0.00454		0.000735	0.00200	1	06/24/2020 20:15	WG1495348
Barium	0.0145	J	0.00778	0.0200	1	06/25/2020 00:20	WG1495379
Barium,Dissolved	0.0162	J	0.00778	0.0200	1	06/24/2020 20:15	WG1495348
Calcium	596		0.480	1.00	1	06/25/2020 00:20	WG1495379
Chromium	0.00174	J	0.00149	0.00200	1	06/25/2020 00:20	WG1495379
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:15	WG1495348
Iron	0.0502	J	0.0489	0.100	1	06/25/2020 00:20	WG1495379
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 20:15	WG1495348
Lead	U		0.0124	0.0250	5	06/25/2020 13:24	WG1495379
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:15	WG1495348
Manganese	2.65		0.00132	0.00500	1	06/25/2020 00:20	WG1495379
Manganese,Dissolved	3.02		0.00132	0.00500	1	06/24/2020 20:15	WG1495348
Potassium	20.7		0.534	2.00	1	06/25/2020 00:20	WG1495379
Selenium	U		0.000657	0.00200	1	06/25/2020 00:20	WG1495379
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:15	WG1495348
Sodium	2690		3.15	10.0	5	06/25/2020 13:24	WG1495379

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 08:39	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*78.0-120*		*06/22/2020 08:39*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 19:18	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 19:18	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 19:18	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 19:18	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 19:18	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 19:18	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 19:18	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 19:18	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 19:18	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 19:18	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 19:18	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 19:18	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 19:18	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 19:18	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 19:18	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 19:18	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 19:18	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 19:18	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 19:18	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 19:18	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 19:18	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 19:18	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 19:18	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 19:18	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 19:18	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 19:18	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 19:18	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 19:18	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 19:18	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 19:18	WG1496570
Methyl tert-butyl ether	0.000725	J	0.000101	0.00100	1	06/21/2020 19:18	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 19:18	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 19:18	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 19:18	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 19:18	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 19:18	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 19:18	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 19:18	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 19:18	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 19:18	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 19:18	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 19:18	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 19:18	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 19:18	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 19:18	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 19:18	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 19:18	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 19:18*	WG1496570
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/21/2020 19:18*	WG1496570
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/21/2020 19:18*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.260		0.0247	0.100	1	06/23/2020 02:15	WG1496548
(S) o-Terphenyl	*93.7*			*31.0-160*		*06/23/2020 02:15*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	15500		56.4	200	1	06/23/2020 21:21	WG1496361

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:47	WG1495505

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:21	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5140		37.9	100	100	06/25/2020 01:12	WG1497335
Fluoride	2.52		0.320	0.750	5	06/25/2020 00:57	WG1497335
Sulfate	5780		59.4	500	100	06/25/2020 01:12	WG1497335

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/22/2020 19:05	WG1495458
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:54	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	1.88		0.0254	0.200	1	06/25/2020 10:01	WG1495366
Boron,Dissolved	1.92		0.0254	0.200	1	06/25/2020 12:31	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00419	J	0.00368	0.0100	5	06/25/2020 13:17	WG1495380
Arsenic,Dissolved	0.00447		0.000735	0.00200	1	06/24/2020 20:19	WG1495348
Barium	U	J5	0.0389	0.100	5	06/25/2020 13:17	WG1495380
Barium,Dissolved	0.0168	J	0.00778	0.0200	1	06/24/2020 20:19	WG1495348
Cadmium	U		0.00239	0.00500	5	06/25/2020 13:17	WG1495380
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 20:19	WG1495348
Calcium	574		2.40	5.00	5	06/25/2020 13:17	WG1495380
Chromium	U		0.00745	0.0100	5	06/25/2020 13:17	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:19	WG1495348
Cobalt	U		0.00238	0.0100	5	06/25/2020 13:17	WG1495380
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 20:19	WG1495348
Iron	1.65		0.244	0.500	5	06/25/2020 13:17	WG1495380
Iron,Dissolved	1.74		0.0489	0.100	1	06/24/2020 20:19	WG1495348
Lead	U		0.0124	0.0250	5	06/25/2020 13:17	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:19	WG1495348
Manganese	1.13	O1 V	0.00660	0.0250	5	06/25/2020 13:17	WG1495380
Manganese,Dissolved	1.23		0.00132	0.00500	1	06/24/2020 20:19	WG1495348
Nickel	0.00735	J	0.00476	0.0100	5	06/25/2020 13:17	WG1495380
Nickel,Dissolved	0.00766		0.000952	0.00200	1	06/24/2020 20:19	WG1495348

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	33.6	O1	2.67	10.0	5	06/25/2020 13:17	WG1495380
Selenium	U		0.00328	0.0100	5	06/25/2020 13:17	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:19	WG1495348
Sodium	3030	O1 V	3.15	10.0	5	06/25/2020 13:17	WG1495380
Uranium	U	J5	0.0377	0.100	5	06/25/2020 13:17	WG1495380
Uranium,Dissolved	0.0258		0.00754	0.0200	1	06/24/2020 20:19	WG1495348
Vanadium	U		0.00493	0.0250	5	06/25/2020 13:17	WG1495380
Vanadium,Dissolved	U		0.000986	0.00500	1	06/24/2020 20:19	WG1495348

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 19:39	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 19:39	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 19:39	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 19:39	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 19:39	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 19:39	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 19:39	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 19:39	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 19:39	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 19:39	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 19:39	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 19:39	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 19:39	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 19:39	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 19:39	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 19:39	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 19:39	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 19:39	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 19:39	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 19:39	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 19:39	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 19:39	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 19:39	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 19:39	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 19:39	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 19:39	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 19:39	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 19:39	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 19:39	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 19:39	WG1496570
Methyl tert-butyl ether	0.000734	J	0.000101	0.00100	1	06/21/2020 19:39	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 19:39	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 19:39	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 19:39	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 19:39	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 19:39	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 19:39	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 19:39	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 19:39	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 19:39	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 19:39	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 19:39	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 19:39	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 19:39	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	U		0.000174	0.00100	1	06/21/2020 19:39	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 19:39	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 19:39	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 19:39*	WG1496570
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/21/2020 19:39*	WG1496570
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*06/21/2020 19:39*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.408		0.0247	0.100	1	06/23/2020 02:41	WG1496548
(S) o-Terphenyl	*98.9*			*31.0-160*		*06/23/2020 02:41*	WG1496548

Cp
Tc
Ss
Cn
Sr
Qc
Gl
Al
Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5360	J3	28.2	100	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:48	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1400		37.9	100	100	06/25/2020 01:42	WG1497335
Fluoride	0.577		0.0640	0.150	1	06/25/2020 01:27	WG1497335
Sulfate	2510		59.4	500	100	06/25/2020 01:42	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0157		0.000735	0.00200	1	06/25/2020 13:31	WG1495380
Arsenic,Dissolved	0.0192		0.000735	0.00200	1	06/24/2020 20:22	WG1495348
Barium	0.0156	J	0.00778	0.0200	1	06/25/2020 13:31	WG1495380
Barium,Dissolved	0.0150	J	0.00778	0.0200	1	06/24/2020 20:22	WG1495348
Calcium	764		0.480	1.00	1	06/25/2020 13:31	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 13:31	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:22	WG1495348
Iron	4.07		0.0489	0.100	1	06/25/2020 13:31	WG1495380
Iron,Dissolved	3.48		0.0489	0.100	1	06/24/2020 20:22	WG1495348
Lead	U		0.00249	0.00500	1	06/25/2020 13:31	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:22	WG1495348
Manganese	0.257		0.00132	0.00500	1	06/25/2020 13:31	WG1495380
Manganese,Dissolved	0.257		0.00132	0.00500	1	06/24/2020 20:22	WG1495348
Potassium	5.22		0.534	2.00	1	06/25/2020 13:31	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 13:31	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:22	WG1495348
Sodium	764		0.630	2.00	1	06/25/2020 13:31	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.29		0.0314	0.100	1	06/22/2020 09:00	WG1496530
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*78.0-120*		*06/22/2020 09:00*	WG1496530

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:00	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 20:00	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:00	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:00	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:00	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:00	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 20:00	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 20:00	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:00	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 20:00	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:00	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:00	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:00	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:00	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:00	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:00	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:00	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:00	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:00	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:00	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:00	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 20:00	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:00	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 20:00	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 20:00	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 20:00	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:00	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 20:00	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:00	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:00	WG1496570
Methyl tert-butyl ether	0.000119	J	0.000101	0.00100	1	06/21/2020 20:00	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 20:00	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 20:00	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 20:00	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:00	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:00	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:00	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 20:00	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:00	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:00	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 20:00	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 20:00	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 20:00	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:00	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 20:00	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 20:00	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 20:00	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 20:00*	WG1496570
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/21/2020 20:00*	WG1496570
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/21/2020 20:00*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.833		0.0247	0.100	1	06/23/2020 03:07	WG1496548
(S) o-Terphenyl	*98.4*			*31.0-160*		*06/23/2020 03:07*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7780		56.4	200	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/24/2020 19:49	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	3510		37.9	100	100	06/25/2020 02:11	WG1497335
Fluoride	1.01		0.320	0.750	5	06/25/2020 01:56	WG1497335
Sulfate	4500		59.4	500	100	06/25/2020 02:11	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.00368	0.0100	5	06/25/2020 13:34	WG1495380
Arsenic,Dissolved	0.00127	J	0.000735	0.00200	1	06/24/2020 20:26	WG1495348
Barium	U		0.0389	0.100	5	06/25/2020 13:34	WG1495380
Barium,Dissolved	0.0182	J	0.00778	0.0200	1	06/24/2020 20:26	WG1495348
Calcium	785		2.40	5.00	5	06/25/2020 13:34	WG1495380
Chromium	U		0.00745	0.0100	5	06/25/2020 13:34	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:26	WG1495348
Iron	6.01		0.244	0.500	5	06/25/2020 13:34	WG1495380
Iron,Dissolved	4.91		0.0489	0.100	1	06/24/2020 20:26	WG1495348
Lead	U		0.0124	0.0250	5	06/25/2020 13:34	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:26	WG1495348
Manganese	0.440		0.00660	0.0250	5	06/25/2020 13:34	WG1495380
Manganese,Dissolved	0.411		0.00132	0.00500	1	06/24/2020 20:26	WG1495348
Potassium	6.50	J	2.67	10.0	5	06/25/2020 13:34	WG1495380
Selenium	U		0.00328	0.0100	5	06/25/2020 13:34	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:26	WG1495348
Sodium	1700		3.15	10.0	5	06/25/2020 13:34	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 03:36	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*99.5*			*78.0-120*		*06/22/2020 03:36*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:20	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 20:20	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:20	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:20	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:20	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:20	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 20:20	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 20:20	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:20	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 20:20	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:20	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:20	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:20	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:20	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:20	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:20	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:20	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:20	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:20	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:20	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:20	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 20:20	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:20	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 20:20	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 20:20	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 20:20	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:20	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 20:20	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:20	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:20	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 20:20	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 20:20	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 20:20	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 20:20	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:20	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:20	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:20	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 20:20	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:20	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:20	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 20:20	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 20:20	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 20:20	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:20	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 20:20	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 20:20	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 20:20	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 20:20*	WG1496570
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/21/2020 20:20*	WG1496570
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/21/2020 20:20*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/23/2020 03:32	WG1496548
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/23/2020 03:32*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6580		28.2	100	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0594	J	0.0500	0.100	1	06/24/2020 19:50	WG1495505

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1950		37.9	100	100	06/25/2020 02:41	WG1497335
Fluoride	1.18		0.0640	0.150	1	06/25/2020 02:26	WG1497335
Sulfate	2600		59.4	500	100	06/25/2020 02:41	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0178		0.00368	0.0100	5	06/25/2020 13:37	WG1495380
Arsenic,Dissolved	0.0175		0.000735	0.00200	1	06/24/2020 20:30	WG1495348
Barium	U		0.0389	0.100	5	06/25/2020 13:37	WG1495380
Barium,Dissolved	0.0148	J	0.00778	0.0200	1	06/24/2020 20:30	WG1495348
Calcium	370		2.40	5.00	5	06/25/2020 13:37	WG1495380
Chromium	U		0.00745	0.0100	5	06/25/2020 13:37	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:30	WG1495348
Iron	2.25		0.244	0.500	5	06/25/2020 13:37	WG1495380
Iron,Dissolved	2.16		0.0489	0.100	1	06/24/2020 20:30	WG1495348
Lead	U		0.0124	0.0250	5	06/25/2020 13:37	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:30	WG1495348
Manganese	0.448		0.00660	0.0250	5	06/25/2020 13:37	WG1495380
Manganese,Dissolved	0.447		0.00132	0.00500	1	06/24/2020 20:30	WG1495348
Potassium	3.54	J	2.67	10.0	5	06/25/2020 13:37	WG1495380
Selenium	U		0.00328	0.0100	5	06/25/2020 13:37	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:30	WG1495348
Sodium	1550		3.15	10.0	5	06/25/2020 13:37	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.337		0.0314	0.100	1	06/22/2020 03:57	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*06/22/2020 03:57*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:41	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 20:41	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:41	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:41	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:41	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:41	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 20:41	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 20:41	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:41	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 20:41	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:41	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:41	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:41	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:41	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:41	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:41	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:41	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:41	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:41	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:41	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:41	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 20:41	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:41	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 20:41	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 20:41	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 20:41	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:41	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 20:41	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:41	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:41	WG1496570
Methyl tert-butyl ether	0.00113		0.000101	0.00100	1	06/21/2020 20:41	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 20:41	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 20:41	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 20:41	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:41	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:41	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:41	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 20:41	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:41	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:41	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 20:41	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 20:41	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 20:41	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:41	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 20:41	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 20:41	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 20:41	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 20:41*	WG1496570
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 20:41*	WG1496570
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/21/2020 20:41*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.915		0.0247	0.100	1	06/23/2020 03:58	WG1496548
(S) o-Terphenyl	*100*			*31.0-160*		*06/23/2020 03:58*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/23/2020 18:58	WG1496490

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/25/2020 02:56	WG1497335
Fluoride	U		0.0640	0.150	1	06/25/2020 02:56	WG1497335
Sulfate	U		0.594	5.00	1	06/25/2020 02:56	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 13:41	WG1495380
Arsenic,Dissolved	U		0.000735	0.00200	1	06/24/2020 20:53	WG1495349
Barium	U		0.00778	0.0200	1	06/25/2020 13:41	WG1495380
Barium,Dissolved	U		0.00778	0.0200	1	06/24/2020 20:53	WG1495349
Calcium	U		0.480	1.00	1	06/25/2020 13:41	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 13:41	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 20:53	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 13:41	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 20:53	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 13:41	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 20:53	WG1495349
Manganese	U		0.00132	0.00500	1	06/25/2020 13:41	WG1495380
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 20:53	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 13:41	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 13:41	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 20:53	WG1495349
Sodium	U		0.630	2.00	1	06/25/2020 13:41	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0425	J	0.0314	0.100	1	06/22/2020 02:34	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*06/22/2020 02:34*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 17:35	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 17:35	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:35	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:35	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:35	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:35	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:35	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:35	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:35	WG1496570

LB-LT-01
Collected date/time: 06/16/20 13:30
L1230681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 17:35	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:35	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:35	WG1496570
Chloroform	0.000112	J	0.000111	0.00500	1	06/21/2020 17:35	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:35	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:35	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:35	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:35	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:35	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:35	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:35	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:35	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 17:35	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:35	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 17:35	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:35	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:35	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:35	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:35	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:35	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:35	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:35	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:35	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:35	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 17:35	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:35	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:35	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:35	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 17:35	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:35	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:35	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 17:35	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:35	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:35	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:35	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:35	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:35	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:35	WG1496570
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 17:35*	WG1496570
(S) 4-Bromofluorobenzene	*94.3*			*77.0-126*		*06/21/2020 17:35*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 17:35*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/23/2020 04:24	WG1496548
(S) o-Terphenyl	*88.4*			*31.0-160*		*06/23/2020 04:24*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/23/2020 19:00	WG1496490

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/25/2020 03:11	WG1497335
Fluoride	U		0.0640	0.150	1	06/25/2020 03:11	WG1497335
Sulfate	U		0.594	5.00	1	06/25/2020 03:11	WG1497335

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 13:58	WG1495380
Arsenic,Dissolved	U		0.000735	0.00200	1	06/24/2020 21:07	WG1495349
Barium	U		0.00778	0.0200	1	06/25/2020 13:58	WG1495380
Barium,Dissolved	U		0.00778	0.0200	1	06/24/2020 21:07	WG1495349
Calcium	U		0.480	1.00	1	06/25/2020 13:58	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 13:58	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:07	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 13:58	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:07	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 13:58	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:07	WG1495349
Manganese	U		0.00132	0.00500	1	06/25/2020 13:58	WG1495380
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 21:07	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 13:58	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 13:58	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 21:07	WG1495349
Sodium	1.64	J	0.630	2.00	1	06/25/2020 13:58	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 02:55	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*		*06/22/2020 02:55*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 17:56	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 17:56	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:56	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:56	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:56	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:56	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:56	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:56	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:56	WG1496570

LB-LT-02
Collected date/time: 06/16/20 17:25
L1230681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 17:56	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:56	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:56	WG1496570
Chloroform	0.000139	J	0.000111	0.00500	1	06/21/2020 17:56	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:56	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:56	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:56	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:56	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:56	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:56	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 17:56	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:56	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 17:56	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:56	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:56	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:56	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:56	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:56	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:56	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:56	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:56	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:56	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 17:56	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:56	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:56	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:56	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 17:56	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:56	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 17:56	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:56	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:56	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:56	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:56	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:56	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:56	WG1496570
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 17:56*	WG1496570
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/21/2020 17:56*	WG1496570
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/21/2020 17:56*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/23/2020 04:50	WG1496548
(S) o-Terphenyl	*88.4*			*31.0-160*		*06/23/2020 04:50*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/23/2020 19:01	WG1496490

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/24/2020 03:28	WG1497346
Fluoride	U		0.0640	0.150	1	06/24/2020 03:28	WG1497346
Sulfate	U		0.594	5.00	1	06/24/2020 03:28	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 14:01	WG1495380
Arsenic,Dissolved	U		0.000735	0.00200	1	06/24/2020 21:11	WG1495349
Barium	U		0.00778	0.0200	1	06/25/2020 14:01	WG1495380
Barium,Dissolved	U		0.00778	0.0200	1	06/24/2020 21:11	WG1495349
Calcium	U		0.480	1.00	1	06/25/2020 14:01	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:01	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:11	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:01	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:11	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:01	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:11	WG1495349
Manganese	U		0.00132	0.00500	1	06/25/2020 14:01	WG1495380
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 21:11	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 14:01	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 14:01	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 21:11	WG1495349
Sodium	U		0.630	2.00	1	06/25/2020 14:01	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 03:15	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*06/22/2020 03:15*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 18:17	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 18:17	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 18:17	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 18:17	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 18:17	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 18:17	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 18:17	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 18:17	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 18:17	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 18:17	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 18:17	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 18:17	WG1496570
Chloroform	0.000129	J	0.000111	0.00500	1	06/21/2020 18:17	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 18:17	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 18:17	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 18:17	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 18:17	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 18:17	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 18:17	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 18:17	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 18:17	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 18:17	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 18:17	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 18:17	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 18:17	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 18:17	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 18:17	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 18:17	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 18:17	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 18:17	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 18:17	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 18:17	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 18:17	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 18:17	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 18:17	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 18:17	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 18:17	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 18:17	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 18:17	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 18:17	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 18:17	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 18:17	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 18:17	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 18:17	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 18:17	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 18:17	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 18:17	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 18:17*	WG1496570
(S) 4-Bromofluorobenzene	*96.6*			*77.0-126*		*06/21/2020 18:17*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 18:17*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/23/2020 05:15	WG1496548
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/23/2020 05:15*	WG1496548

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Collected date/time: 06/16/20 00:00

SAMPLE RESULTS - 22

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	06/21/2020 16:54	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 16:54	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 16:54	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 16:54	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 16:54	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 16:54	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 16:54	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 16:54	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 16:54	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 16:54	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 16:54	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 16:54	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 16:54	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 16:54	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 16:54	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 16:54	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 16:54	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 16:54	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 16:54	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 16:54	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 16:54	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 16:54	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 16:54	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 16:54	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 16:54	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 16:54	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 16:54	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 16:54	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 16:54	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 16:54	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 16:54	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 16:54	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 16:54	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 16:54	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 16:54	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 16:54	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 16:54	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 16:54	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 16:54	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 16:54	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 16:54	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 16:54	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 16:54	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 16:54	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 16:54	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 16:54	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 16:54	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 16:54*	WG1496570
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/21/2020 16:54*	WG1496570
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/21/2020 16:54*	WG1496570

Released to Imaging: 11/21/2023 10:16:55 AM

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	06/21/2020 17:14	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 17:14	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:14	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:14	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:14	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:14	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:14	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:14	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:14	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 17:14	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:14	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:14	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 17:14	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:14	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:14	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:14	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:14	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:14	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:14	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:14	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:14	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 17:14	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:14	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 17:14	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:14	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:14	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:14	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:14	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:14	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:14	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:14	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:14	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:14	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 17:14	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:14	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:14	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:14	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 17:14	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:14	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:14	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 17:14	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:14	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:14	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:14	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:14	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:14	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:14	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 17:14*	WG1496570
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*06/21/2020 17:14*	WG1496570
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/21/2020 17:14*	WG1496570

Method Blank (MB)

(MB) R3542947-1 06/23/20 21:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230681-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-01 06/23/20 21:21 • (DUP) R3542947-3 06/23/20 21:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3640	3560	1	2.22		5

L1230681-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-15 06/23/20 21:21 • (DUP) R3542947-4 06/23/20 21:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	15500	15900	1	2.17		5

Laboratory Control Sample (LCS)

(LCS) R3542947-2 06/23/20 21:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8740	99.3	85.0-115	

Method Blank (MB)

(MB) R3543100-1 06/23/20 22:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230681-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-16 06/23/20 22:49 • (DUP) R3543100-3 06/23/20 22:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	5360	4110	1	26.4	J3	5

L1230685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-01 06/23/20 22:49 • (DUP) R3543100-4 06/23/20 22:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2810	2760	1	1.80		5

Laboratory Control Sample (LCS)

(LCS) R3543100-2 06/23/20 22:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8680	98.6	85.0-115	

Method Blank (MB)

(MB) R3542599-1 06/24/20 19:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230678-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-05 06/24/20 19:14 • (DUP) R3542599-3 06/24/20 19:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1230681-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-18 06/24/20 19:50 • (DUP) R3542599-7 06/24/20 19:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0594	0.0682	1	13.8	J	20

Laboratory Control Sample (LCS)

(LCS) R3542599-2 06/24/20 19:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.97	99.3	90.0-110	

L1230681-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-08 06/24/20 19:30 • (MS) R3542599-4 06/24/20 19:31 • (MSD) R3542599-5 06/24/20 19:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.26	2.27	90.4	90.8	1	90.0-110			0.442	20

L1230681-14 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-14 06/24/20 19:44 • (MS) R3542599-6 06/24/20 19:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.47	98.8	1	90.0-110	

Method Blank (MB)

(MB) R3542063-1 06/23/20 18:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1227600-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1227600-03 06/23/20 18:53 • (DUP) R3542063-3 06/23/20 18:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3542063-2 06/23/20 18:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.27	107	90.0-110	

L1230885-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230885-01 06/23/20 19:06 • (MS) R3542063-4 06/23/20 19:07 • (MSD) R3542063-5 06/23/20 19:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.141	3.05	3.08	116	118	1	90.0-110	J5	J5	0.979	20

Method Blank (MB)

(MB) R3543143-1 06/25/20 22:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1230655-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-02 06/25/20 22:17 • (DUP) R3543143-3 06/25/20 22:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1230685-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-24 06/25/20 22:34 • (DUP) R3543143-6 06/25/20 22:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543143-2 06/25/20 22:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.103	103	90.0-110	

L1230685-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-02 06/25/20 22:25 • (MS) R3543143-4 06/25/20 22:26 • (MSD) R3543143-5 06/25/20 22:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0841	0.0852	84.1	85.2	1	75.0-125			1.30	20

L1230685-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-25 06/25/20 22:38 • (MS) R3543143-7 06/25/20 22:39 • (MSD) R3543143-8 06/25/20 22:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0877	0.0944	87.7	94.4	1	75.0-125			7.36	20

Method Blank (MB)

(MB) R3542695-1 06/24/20 15:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230681-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-01 06/24/20 16:28 • (DUP) R3542695-3 06/24/20 17:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.55	1.56	1	0.734		15

L1230681-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-01 06/24/20 16:43 • (DUP) R3542695-4 06/24/20 18:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	669	685	100	2.30		15
Sulfate	1670	1730	100	3.28		15

L1230681-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-19 06/25/20 02:56 • (DUP) R3542695-7 06/25/20 04:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3542695-2 06/24/20 15:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.5	98.8	80.0-120	
Fluoride	8.00	8.11	101	80.0-120	
Sulfate	40.0	40.2	101	80.0-120	

L1230681-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-02 06/24/20 16:58 • (MS) R3542695-5 06/24/20 18:57 • (MSD) R3542695-6 06/24/20 19:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1270	1250	1260	0.000	0.000	1	80.0-120	E V	E V	0.167	15
Fluoride	5.00	2.90	7.38	7.40	89.6	90.1	1	80.0-120			0.291	15
Sulfate	50.0	2490	2430	2430	0.000	0.000	1	80.0-120	E V	E V	0.00842	15

L1230681-20 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-20 06/25/20 03:11 • (MS) R3542695-8 06/25/20 05:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	50.2	100	1	80.0-120	
Fluoride	5.00	U	5.03	101	1	80.0-120	
Sulfate	50.0	U	50.7	101	1	80.0-120	

Method Blank (MB)

(MB) R3542446-1 06/23/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/23/20 23:14 • (DUP) R3542446-3 06/23/20 23:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	61.0	61.0	1	0.127		15
Fluoride	0.105	0.102	1	2.42	J	15

L1230678-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-06 06/24/20 02:58 • (DUP) R3542446-6 06/24/20 03:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/24/20 10:43 • (DUP) R3542446-8 06/24/20 11:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	156	154	5	1.33		15

Laboratory Control Sample (LCS)

(LCS) R3542446-2 06/23/20 19:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.0	97.6	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	39.7	99.3	80.0-120	

L1230674-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230674-02 06/23/20 23:44 • (MS) R3542446-4 06/23/20 23:59 • (MSD) R3542446-5 06/24/20 00:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	63.8	112	112	95.7	96.0	1	80.0-120	E	E	0.142	15
Fluoride	5.00	0.123	5.09	5.12	99.3	99.9	1	80.0-120			0.537	15
Sulfate	50.0	159	198	199	78.5	79.2	1	80.0-120	E J6	E J6	0.178	15

L1230681-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-21 06/24/20 03:28 • (MS) R3542446-7 06/24/20 03:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	50.0	99.9	1	80.0-120	
Fluoride	5.00	U	4.99	99.9	1	80.0-120	
Sulfate	50.0	U	50.4	101	1	80.0-120	

Method Blank (MB)

(MB) R3541143-1 06/21/20 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541143-2 06/21/20 20:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00335	112	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/21/20 20:38 • (MS) R3541143-3 06/21/20 20:40 • (MSD) R3541143-4 06/21/20 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00246	0.00247	82.0	82.2	1	75.0-125			0.166	20

Method Blank (MB)

(MB) R3541598-1 06/22/20 18:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541598-2 06/22/20 18:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00282	94.0	80.0-120	

L1230821-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230821-06 06/22/20 18:36 • (MS) R3541598-3 06/22/20 18:38 • (MSD) R3541598-4 06/22/20 18:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00284	0.00312	94.7	104	1	75.0-125			9.53	20

Method Blank (MB)

(MB) R3542922-1 06/25/20 11:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542922-2 06/25/20 11:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	1.02	102	80.0-120	

L1230685-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-22 06/25/20 11:51 • (MS) R3542922-4 06/25/20 11:57 • (MSD) R3542922-5 06/25/20 12:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.184	1.21	1.22	103	103	1	75.0-125			0.380	20

Method Blank (MB)

(MB) R3542944-1 06/25/20 10:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542944-2 06/25/20 11:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.955	95.5	80.0-120	

L1230669-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230669-05 06/25/20 11:04 • (MS) R3542944-4 06/25/20 11:09 • (MSD) R3542944-5 06/25/20 11:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.0282	1.01	1.00	97.9	97.3	1	75.0-125			0.622	20

Method Blank (MB)

(MB) R3542943-1 06/25/20 09:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542943-2 06/25/20 09:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.945	94.5	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/25/20 09:49 • (MS) R3542943-4 06/25/20 09:55 • (MSD) R3542943-5 06/25/20 09:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	2.08	3.00	3.02	92.7	94.0	1	75.0-125			0.448	20

Method Blank (MB)

(MB) R3542586-1 06/24/20 18:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3542586-2 06/24/20 18:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0512	102	80.0-120	
Barium,Dissolved	0.0500	0.0487	97.3	80.0-120	
Cadmium,Dissolved	0.0500	0.0504	101	80.0-120	
Chromium,Dissolved	0.0500	0.0521	104	80.0-120	
Cobalt,Dissolved	0.0500	0.0534	107	80.0-120	
Iron,Dissolved	5.00	5.22	104	80.0-120	
Lead,Dissolved	0.0500	0.0488	97.6	80.0-120	
Manganese,Dissolved	0.0500	0.0518	104	80.0-120	
Nickel,Dissolved	0.0500	0.0530	106	80.0-120	
Selenium,Dissolved	0.0500	0.0500	100	80.0-120	
Uranium,Dissolved	0.0500	0.0479	95.8	80.0-120	
Vanadium,Dissolved	0.0500	0.0515	103	80.0-120	

L1230678-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-05 06/24/20 18:45 • (MS) R3542586-4 06/24/20 18:53 • (MSD) R3542586-5 06/24/20 18:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00635	0.0536	0.0540	94.6	95.3	1	75.0-125			0.720	20
Barium,Dissolved	0.0500	0.0173	0.0642	0.0689	93.9	103	1	75.0-125			6.96	20
Cadmium,Dissolved	0.0500	U	0.0487	0.0501	97.3	100	1	75.0-125			2.81	20

L1230678-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-05 06/24/20 18:45 • (MS) R3542586-4 06/24/20 18:53 • (MSD) R3542586-5 06/24/20 18:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	0.00568	0.0533	0.0531	95.2	94.9	1	75.0-125			0.278	20
Cobalt,Dissolved	0.0500	0.000499	0.0476	0.0483	94.2	95.6	1	75.0-125			1.56	20
Iron,Dissolved	5.00	0.157	4.90	4.95	95.0	95.9	1	75.0-125			1.00	20
Lead,Dissolved	0.0500	U	0.0496	0.0493	99.2	98.6	1	75.0-125			0.547	20
Manganese,Dissolved	0.0500	1.24	1.27	1.28	71.9	86.2	1	75.0-125	V		0.558	20
Nickel,Dissolved	0.0500	0.0364	0.0832	0.0842	93.4	95.5	1	75.0-125			1.22	20
Selenium,Dissolved	0.0500	U	0.0540	0.0514	108	103	1	75.0-125			4.97	20
Uranium,Dissolved	0.0500	U	0.0501	0.0498	100	99.5	1	75.0-125			0.683	20
Vanadium,Dissolved	0.0500	U	0.0480	0.0491	96.0	98.1	1	75.0-125			2.22	20

Method Blank (MB)

(MB) R3542614-1 06/24/20 20:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Chromium,Dissolved	U		0.00149	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200

Laboratory Control Sample (LCS)

(LCS) R3542614-2 06/24/20 20:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0487	97.3	80.0-120	
Barium,Dissolved	0.0500	0.0494	98.9	80.0-120	
Chromium,Dissolved	0.0500	0.0499	99.7	80.0-120	
Iron,Dissolved	5.00	4.95	99.1	80.0-120	
Lead,Dissolved	0.0500	0.0502	100	80.0-120	
Manganese,Dissolved	0.0500	0.0492	98.4	80.0-120	
Selenium,Dissolved	0.0500	0.0527	105	80.0-120	

L1230681-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-19 06/24/20 20:53 • (MS) R3542614-4 06/24/20 21:00 • (MSD) R3542614-5 06/24/20 21:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	U	0.0493	0.0489	98.6	97.8	1	75.0-125			0.894	20
Barium,Dissolved	0.0500	U	0.0489	0.0500	97.7	100	1	75.0-125			2.29	20
Chromium,Dissolved	0.0500	U	0.0513	0.0508	103	102	1	75.0-125			0.922	20
Iron,Dissolved	5.00	U	5.04	5.03	101	101	1	75.0-125			0.348	20
Lead,Dissolved	0.0500	U	0.0499	0.0501	99.7	100	1	75.0-125			0.502	20
Manganese,Dissolved	0.0500	U	0.0513	0.0505	103	101	1	75.0-125			1.44	20
Selenium,Dissolved	0.0500	U	0.0532	0.0520	106	104	1	75.0-125			2.21	20

Method Blank (MB)

(MB) R3542682-1 06/25/20 00:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3542883-1 06/25/20 11:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	U		0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3542682-2 06/25/20 00:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0466	93.1	80.0-120	
Barium	0.0500	0.0470	94.0	80.0-120	
Cadmium	0.0500	0.0497	99.5	80.0-120	
Calcium	5.00	4.70	94.0	80.0-120	
Chromium	0.0500	0.0483	96.5	80.0-120	
Cobalt	0.0500	0.0493	98.6	80.0-120	
Iron	5.00	4.85	97.0	80.0-120	
Lead	0.0500	0.0493	98.6	80.0-120	
Manganese	0.0500	0.0462	92.4	80.0-120	
Nickel	0.0500	0.0490	98.0	80.0-120	
Potassium	5.00	4.61	92.2	80.0-120	
Selenium	0.0500	0.0473	94.6	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542682-2 06/25/20 00:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	0.0500	0.0471	94.1	80.0-120	
Vanadium	0.0500	0.0460	92.1	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542883-2 06/25/20 11:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	5.00	4.97	99.3	80.0-120	

L1230678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-01 06/25/20 00:38 • (MS) R3542682-4 06/25/20 00:45 • (MSD) R3542682-5 06/25/20 00:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00632	0.0526	0.0511	92.5	89.6	1	75.0-125			2.80	20
Barium	0.0500	0.0169	0.0628	0.0625	91.8	91.2	1	75.0-125			0.475	20
Cadmium	0.0500	U	0.0505	0.0498	101	99.6	1	75.0-125			1.28	20
Calcium	5.00	305	305	305	2.46	6.31	1	75.0-125	V	V	0.0632	20
Chromium	0.0500	0.103	0.147	0.146	87.9	86.3	1	75.0-125			0.537	20
Cobalt	0.0500	0.00217	0.0481	0.0466	91.9	88.9	1	75.0-125			3.19	20
Potassium	5.00	U	4.80	4.76	96.0	95.2	1	75.0-125			0.874	20
Iron	5.00	0.455	5.16	5.08	94.1	92.4	1	75.0-125			1.62	20
Lead	0.0500	U	0.0465	0.0489	93.1	97.8	1	75.0-125			4.91	20
Manganese	0.0500	1.17	1.21	1.19	77.2	40.4	1	75.0-125		V	1.54	20
Nickel	0.0500	0.127	0.157	0.156	59.9	57.6	1	75.0-125	J6	J6	0.736	20
Selenium	0.0500	0.000712	0.0505	0.0507	99.5	100	1	75.0-125			0.585	20
Uranium	0.0500	U	0.0491	0.0499	98.3	99.8	1	75.0-125			1.54	20
Vanadium	0.0500	U	0.0469	0.0455	93.7	91.1	1	75.0-125			2.91	20

L1230678-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230678-01 06/25/20 11:29 • (MS) R3542883-5 06/25/20 11:40 • (MSD) R3542883-6 06/25/20 11:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	5.00	284	286	289	47.6	98.4	1	75.0-125	V		0.883	20

Method Blank (MB)

(MB) R3542965-1 06/25/20 13:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3542965-2 06/25/20 13:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0491	98.2	80.0-120	
Barium	0.0500	0.0498	99.5	80.0-120	
Cadmium	0.0500	0.0533	107	80.0-120	
Calcium	5.00	5.02	100	80.0-120	
Chromium	0.0500	0.0524	105	80.0-120	
Cobalt	0.0500	0.0519	104	80.0-120	
Iron	5.00	5.37	107	80.0-120	
Lead	0.0500	0.0490	98.1	80.0-120	
Manganese	0.0500	0.0513	103	80.0-120	
Nickel	0.0500	0.0541	108	80.0-120	
Potassium	5.00	4.92	98.4	80.0-120	
Selenium	0.0500	0.0493	98.7	80.0-120	
Sodium	5.00	5.17	103	80.0-120	
Uranium	0.0500	0.0496	99.2	80.0-120	
Vanadium	0.0500	0.0515	103	80.0-120	

L1230681-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-15 06/25/20 13:17 • (MS) R3542965-4 06/25/20 13:24 • (MSD) R3542965-5 06/25/20 13:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0100	0.00419	0.0505	0.0499	92.6	91.5	5	75.0-125			1.09	20
Barium	0.0100	U	0.0644	0.0648	129	130	5	75.0-125	J5	J5	0.540	20
Cadmium	0.0100	U	0.0510	0.0498	102	99.7	5	75.0-125			2.37	20
Calcium	1.00	574	593	610	375	726	5	75.0-125	V	V	2.92	20
Chromium	0.0100	U	0.0508	0.0516	102	103	5	75.0-125			1.52	20
Cobalt	0.0100	U	0.0475	0.0473	95.0	94.6	5	75.0-125			0.446	20
Potassium	1.00	33.6	38.4	39.5	95.9	119	5	75.0-125			2.92	20
Iron	1.00	1.65	6.33	6.56	93.6	98.3	5	75.0-125			3.69	20
Lead	0.0100	U	0.0453	0.0450	90.6	89.9	5	75.0-125			0.692	20
Manganese	0.0100	1.13	1.22	1.25	180	251	5	75.0-125	V	V	2.87	20
Nickel	0.0100	0.00735	0.0555	0.0569	96.3	99.1	5	75.0-125			2.43	20
Selenium	0.0100	U	0.0481	0.0540	96.2	108	5	75.0-125			11.6	20
Sodium	1.00	3030	3160	3290	2500	5120	5	75.0-125	V	V	4.05	20
Uranium	0.0100	U	0.0715	0.0723	143	145	5	75.0-125	J5	J5	1.12	20
Vanadium	0.0100	U	0.0484	0.0483	96.9	96.7	5	75.0-125			0.217	20

Method Blank (MB)

(MB) R3542864-3 06/22/20 01:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.2*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542864-1 06/22/20 00:03 • (LCSD) R3542864-2 06/22/20 00:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	4.44	5.23	80.7	95.1	72.0-127			16.3	20
(S) a,a,a-Trifluorotoluene(FID)				*104*	*107*	*78.0-120*				

Method Blank (MB)

(MB) R3542955-2 06/21/20 23:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542955-1 06/21/20 22:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.33	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

L1230685-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-16 06/22/20 08:45 • (MS) R3542955-3 06/22/20 09:26 • (MSD) R3542955-4 06/22/20 09:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	55.0	5.15	59.2	60.7	98.3	101	10	10.0-160			2.50	22
(S) a,a,a-Trifluorotoluene(FID)					*100*	*103*		*78.0-120*				

Method Blank (MB)

(MB) R3541999-2 06/21/20 00:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3541999-2 06/21/20 00:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3541999-1 06/20/20 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0247	98.8	19.0-160	
Benzene	0.00500	0.00449	89.8	70.0-123	
Bromodichloromethane	0.00500	0.00455	91.0	75.0-120	
Bromoform	0.00500	0.00500	100	68.0-132	
Bromomethane	0.00500	0.00545	109	10.0-160	
n-Butylbenzene	0.00500	0.00381	76.2	73.0-125	
sec-Butylbenzene	0.00500	0.00423	84.6	75.0-125	
Carbon disulfide	0.00500	0.00407	81.4	61.0-128	
Carbon tetrachloride	0.00500	0.00465	93.0	68.0-126	
Chlorobenzene	0.00500	0.00522	104	80.0-121	
Chlorodibromomethane	0.00500	0.00527	105	77.0-125	
Chloroethane	0.00500	0.00480	96.0	47.0-150	
Chloroform	0.00500	0.00435	87.0	73.0-120	
Chloromethane	0.00500	0.00427	85.4	41.0-142	
1,2-Dibromoethane	0.00500	0.00538	108	80.0-122	
1,1-Dichloroethane	0.00500	0.00468	93.6	70.0-126	
1,2-Dichloroethane	0.00500	0.00485	97.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00477	95.4	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00487	97.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00475	95.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00448	89.6	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00422	84.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00423	84.6	78.0-124	

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Laboratory Control Sample (LCS)

(LCS) R3541999-1 06/20/20 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00497	99.4	79.0-123	
2-Hexanone	0.0250	0.0231	92.4	67.0-149	
Isopropylbenzene	0.00500	0.00460	92.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00429	85.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0251	100	44.0-160	
Methylene Chloride	0.00500	0.00477	95.4	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0252	101	68.0-142	
Methyl tert-butyl ether	0.00500	0.00353	70.6	68.0-125	
Naphthalene	0.00500	0.00450	90.0	54.0-135	
n-Propylbenzene	0.00500	0.00408	81.6	77.0-124	
Styrene	0.00500	0.00451	90.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00530	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00414	82.8	65.0-130	
Tetrachloroethene	0.00500	0.00547	109	72.0-132	
Toluene	0.00500	0.00457	91.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00467	93.4	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00521	104	80.0-120	
Trichloroethene	0.00500	0.00549	110	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00401	80.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00407	81.4	76.0-122	
Vinyl chloride	0.00500	0.00453	90.6	67.0-131	
Xylenes, Total	0.0150	0.0148	98.7	79.0-123	
o-Xylene	0.00500	0.00470	94.0	80.0-122	
m&p-Xylenes	0.0100	0.0101	101	80.0-122	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*94.3*	*70.0-130*	

Method Blank (MB)

(MB) R3542570-2 06/21/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542570-2 06/21/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542570-1 06/21/20 14:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0362	145	19.0-160	
Benzene	0.00500	0.00507	101	70.0-123	
Bromodichloromethane	0.00500	0.00490	98.0	75.0-120	
Bromoform	0.00500	0.00415	83.0	68.0-132	
Bromomethane	0.00500	0.00456	91.2	10.0-160	
n-Butylbenzene	0.00500	0.00424	84.8	73.0-125	
sec-Butylbenzene	0.00500	0.00436	87.2	75.0-125	
Carbon disulfide	0.00500	0.00441	88.2	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00492	98.4	80.0-121	
Chlorodibromomethane	0.00500	0.00467	93.4	77.0-125	
Chloroethane	0.00500	0.00499	99.8	47.0-150	
Chloroform	0.00500	0.00491	98.2	73.0-120	
Chloromethane	0.00500	0.00586	117	41.0-142	
1,2-Dibromoethane	0.00500	0.00500	100	80.0-122	
1,1-Dichloroethane	0.00500	0.00584	117	70.0-126	
1,2-Dichloroethane	0.00500	0.00557	111	70.0-128	
1,1-Dichloroethene	0.00500	0.00466	93.2	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00491	98.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00470	94.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00588	118	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00501	100	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00464	92.8	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3542570-1 06/21/20 14:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00453	90.6	79.0-123	
2-Hexanone	0.0250	0.0320	128	67.0-149	
Isopropylbenzene	0.00500	0.00413	82.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00442	88.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0373	149	44.0-160	
Methylene Chloride	0.00500	0.00498	99.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0326	130	68.0-142	
Methyl tert-butyl ether	0.00500	0.00510	102	68.0-125	
Naphthalene	0.00500	0.00532	106	54.0-135	
n-Propylbenzene	0.00500	0.00447	89.4	77.0-124	
Styrene	0.00500	0.00459	91.8	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00473	94.6	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00514	103	65.0-130	
Tetrachloroethene	0.00500	0.00421	84.2	72.0-132	
Toluene	0.00500	0.00471	94.2	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00465	93.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00496	99.2	80.0-120	
Trichloroethene	0.00500	0.00539	108	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00428	85.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00431	86.2	76.0-122	
Vinyl chloride	0.00500	0.00514	103	67.0-131	
Xylenes, Total	0.0150	0.0135	90.0	79.0-123	
o-Xylene	0.00500	0.00445	89.0	80.0-122	
m&p-Xylenes	0.0100	0.00900	90.0	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*100*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*110*	*70.0-130*	

Method Blank (MB)

(MB) R3542707-1 06/24/20 20:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*85.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542707-2 06/24/20 20:30 • (LCSD) R3542707-3 06/24/20 20:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.51	1.55	101	103	50.0-150			2.61	20
(S) o-Terphenyl				*100*	*103*	*31.0-160*				

Method Blank (MB)

(MB) R3541749-1 06/22/20 23:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*87.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3541749-2 06/23/20 00:06 • (LCSD) R3541749-3 06/23/20 00:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.55	1.53	103	102	50.0-150			1.30	20
(S) o-Terphenyl				*105*	*103*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

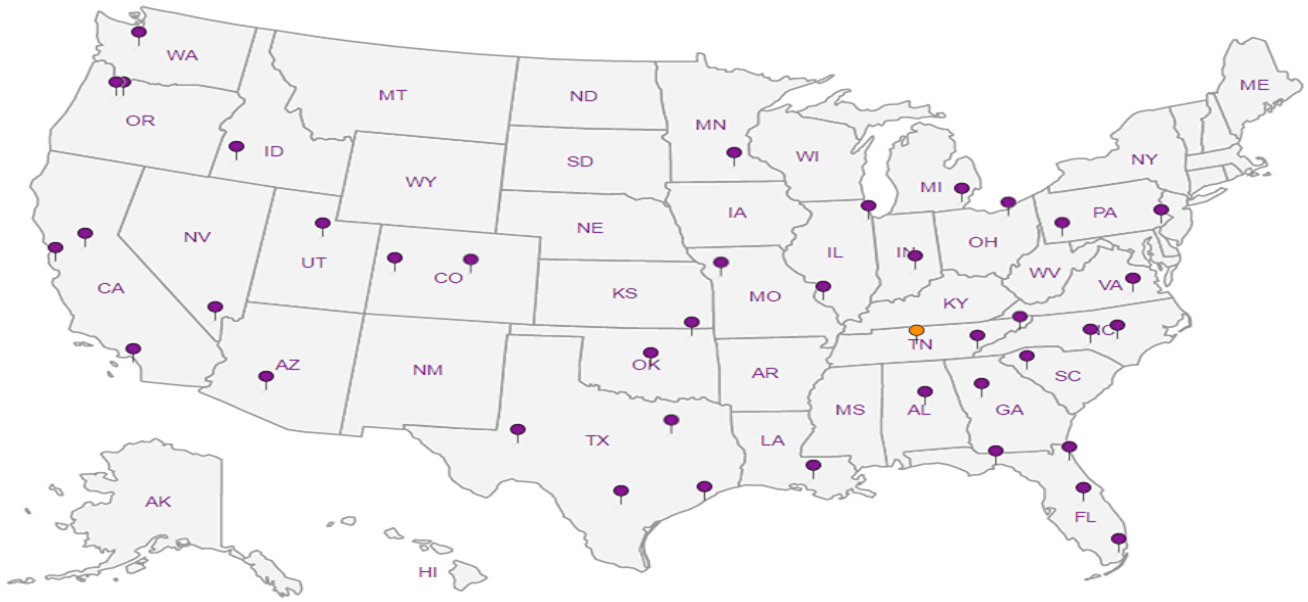
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 6

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123681
1079

Acctnum: TRCATX
Template: T133265
Prelogin: P763440
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-6A	Grab	GW		6/16/20	1055	10	X	X	X	X	X	X						01
MW-85	Grab	GW				10	X	X	X	X	X	X						
MW-86	Grab	GW				11	X	X	X		X	X	X	X				
MW-120	Grab	GW		6/16/20	1145	10	X	X	X	X	X	X						02
MW-121	Grab	GW		6/16/20	1230	10	X	X	X	X	X	X						03
MW-84	Grab	GW				10	X	X	X	X	X	X						
MW-122	Grab	GW				10	X	X	X	X	X	X						
MW-81	Grab	GW				10	X	X	X	X	X	X						
MW-80	Grab	GW				10	X	X	X	X	X	X						
MW-79	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Scott Ude	6/17/20	0800		X2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 18.8 °C Bottles Received: 1,6-2=8 2DB+2TB
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time
HCl

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 2 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1230681

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-82	Grab	GW				10	X	X	X	X	X	X						
MW-74	Grab	GW		6/16/20	1315	10	X	X	X	X	X	X						04
MW-73	Grab	GW		6/16/20	1420	10	X	X	X	X	X	X						05
MW-2A	Grab	GW				10	X	X	X	X	X	X						
MW-72	Grab	GW		6/16/20	1650	10	X	X	X	X	X	X						06
OCD-6	Grab	GW		6/16/20	1605	10	X	X	X	X	X	X						07
OCD-7AR	Grab	GW		6/16/20	1510	10	X	X	X	X	X	X						09
MW-76	Grab	GW				10	X	X	X	X	X	X						
MW-77	Grab	GW				10	X	X	X	X	X	X						
MW-78	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Trip Blank Received: Yes / No
HCl / MeOH
TBR

Temp: NPW3 °C Bottles Received: 208 + 213
1.0-2=.8

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

RAD SCREEN: <0.5 mR/hr

	Date:	Time:	
Relinquished by : (Signature) Scott Ude	6/17/20	0800	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Date: 6/18/20 Time: 0845

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-75	Grab	GW				10	X	X	X	X	X	X						
MW-83	Grab	GW				10	X	X	X	X	X	X						
MW-3	Grab	GW				10	X	X	X	X	X	X						
MW-88	Grab	GW		6/16/20	1725	10	X	X	X	X	X	X						09
MW-22A	Grab	GW				10	X	X	X	X	X	X						
MW-10	Grab	GW				10	X	X	X	X	X	X						
MW-123	Grab	GW				10	X	X	X	X	X	X						
MW-4A	Grab	GW		6/16/20	1555	10	X	X	X	X	X	X						10
MW-5A	Grab	GW		6/16/20	1450	10	X	X	X	X	X	X						11
MW-7A	Grab	GW		6/16/20	1345	10	X	X	X	X	X	X						12

Chain of Custody Page 3 of 3

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230631

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH TBR)
Scott Ude	6/17/20	0800		X2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3 °C Bottles Received: 1.0-2=.8 206+2TB
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230681

Table #

Acctnum: TRCATX
Template: T133265
Prelogin: P763440
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
OCD-8A	Grab	GW		6/16/20	1250	11	X	X	X		X	X	X	X				13
MW-1R	Grab	GW				8	X	X		X	X	X						
MW-15	Grab	GW				10	X	X	X	X	X	X						
OCD-1R	Grab	GW				10	X	X	X	X	X	X						
OCD-2A	Grab	GW				10	X	X	X	X	X	X						
OCD-3	Grab	GW				10	X	X	X	X	X	X						
OCD-4	Grab	GW				10	X	X	X	X	X	X						
MW-11A	Grab	GW				10	X	X	X	X	X	X						
OCD-5	Grab	GW				10	X	X	X	X	X	X						
MW-87	Grab	GW		6/16/20	1545	8	X	X		X	X	X						14

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓ __N
Bottles arrive intact: ✓ __N
Correct bottles used: ✓ __N
Sufficient Volume sent: ✓ __N
If Applicable
VOA Zero Headspace: ✓ __N
Preservation Correct/Checked: __Y __N
PID SCREEN: <0.5 ppm

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Scott Ude	6/17/20	0800		x2
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0-1.2=.8 °C Bottles Received: 208+2TB HCl
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Chain of Custody Page 5 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

L# L230631

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals (L2)	Cations (from "total metals" bottle) (L2)	Anions, NO2NO3, TDS (L2)	Total/Dissolved Long List Metals (L2)	Cyanide (7/2 RC✓)	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-18A	Grab	GW		6/16/20	1630	9	X	X			X	X	X	X				15
MW-70	Grab	GW		6/16/20	1800	10	X	X	X	X	X	X						16
MW-124	Grab	GW		6/16/20	1710	10	X	X	X	X	X	X						17
DUP-EP-01	Grab	GW		6/16/20	1200	10	X	X	X	X	X	X						18
DUP-EP-02	Grab	GW				10	X	X	X	X	X	X						
DUP-EP-03	Grab	GW		~~6/16/20~~	~~1330~~	10	X	X	X	X	X	X						
EB-EP-01	Grab	GW		6/16/20	1330	10	X	X	X	X	X	X						19
EB-EP-02	Grab	GW		6/16/20	1725	10	X	X	X	X	X	X						20
EB-EP-03	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						21
EB-EP-04	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other ______

Remarks:
Dissolved metals field-filtered.

pH ______ Temp ______
Flow ______ Other ______

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: _NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N
Sufficient volume sent: _Y _N
If Applicable
VOA Zero Headspace: _Y _N
Preservation Correct/Checked: _Y _N
RAD SCREEN: <0.5 mR/hr

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR x2
Scott Ude	6/17/20	0800		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: [illegible] °C 1.0-.2=.8 Bottles Received: 208 + 2TB HCl
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 6 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123681

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
										42	42	42	42	912 ✓				
Trip Blank-EP-01	Grab	GW				1	X											
Trip Blank-EP-02	Grab	GW		6/16/20	—	1	X											22
Trip Blank-EP-03	Grab	GW				1	X											
Trip Blank-EP-04	Grab	GW		6/16/20	—	1	X											24

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	0800	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: (Yes) No
HCl / MeoH
TBR

Temp: 1.4/1.3 °C Bottles Received:
1.0-0=8 2x6 +2TB#01

Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Tracking #	Corresponding Temp.
4492 6229 7130	1.0 - .2 = 0.8 MP A3
↓ 6230 6815	3.2 ± 0 = 3.2 HM A2
1203 5785 6018	1.8 ± 0 = 1.8 HM A2
1203 5786 0856	1.1 ± 0 = 1.1 HM A2
4492 6230 1310	0.9 ± 0 = 0.9
16635756 9559	1.1 ± 0 = 1.1
4492 6230 6859	0.4 ± 0 = 0.4
8098 2926 7587	1.7 ± 0 = 1.7
↓ ↓ 8790	1.1 ± 0 = 1.1
1203 5785 6030	1.3 ± 0 = 1.3
4492 6230 1331	0.4 ± 0 = 0.4
↓ ↓ 1309	2.3 ± 0 = 2.3
1663 5756 9560	3.0 ± 0 = 3.0
↓ ↓ 9570	0.6 ± 0 = 0.6
4492 6230 1310	0.7 ± 0 = 0.7

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 04, 2021

Revised Report

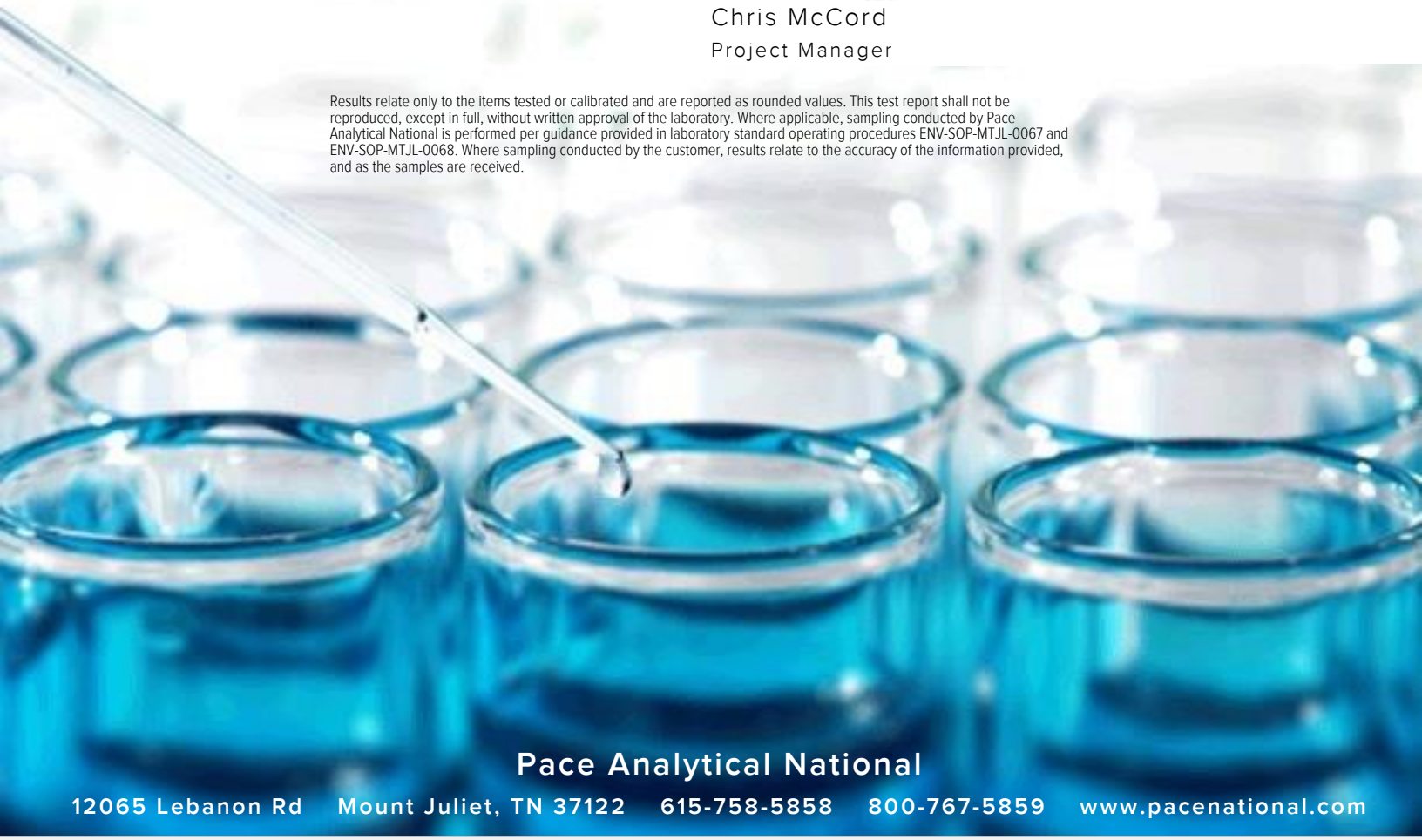
TRC Solutions - Austin, TX

Sample Delivery Group:	L1230685
Samples Received:	06/18/2020
Project Number:	330538.0000.0000
Description:	REST Spring 2020
Site:	REST (NAVAJO-ARTESIA)
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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KWB-7 L1230685-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:08	06/26/20 18:08	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:22	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 02:38	06/25/20 02:38	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	20	06/25/20 03:12	06/25/20 03:12	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 21:51	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:55	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:34	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:05	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:15	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:05	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 21:02	06/21/20 21:02	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 05:41	CAG	Mt. Juliet, TN

KWB-11A L1230685-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:10	06/26/20 18:10	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:25	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 03:46	06/25/20 03:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	50	06/25/20 04:03	06/25/20 04:03	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 21:53	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:57	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:38	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:08	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:18	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:12	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 04:17	06/22/20 04:17	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 21:22	06/21/20 21:22	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 06:07	CAG	Mt. Juliet, TN

KWB-11B L1230685-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:15
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:11	06/26/20 18:11	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:28	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 04:20	06/25/20 04:20	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 04:36	06/25/20 04:36	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:03	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 20:59	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:42	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:12	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:31	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:15	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 04:38	06/22/20 04:38	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 21:43	06/21/20 21:43	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 20:17	KME	Mt. Juliet, TN

MW-115 L1230685-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:20
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:13	06/26/20 18:13	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 05:27	06/25/20 05:27	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 05:44	06/25/20 05:44	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:34	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:19	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 04:58	06/22/20 04:58	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 22:04	06/21/20 22:04	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 20:43	CAG	Mt. Juliet, TN

MW-114 L1230685-05 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:20
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:14	06/26/20 18:14	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 06:01	06/25/20 06:01	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 06:18	06/25/20 06:18	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:38	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:22	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 05:19	06/22/20 05:19	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 22:24	06/21/20 22:24	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 07:24	CAG	Mt. Juliet, TN

MW-117 L1230685-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 11:15
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:21	06/26/20 18:21	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 06:35	06/25/20 06:35	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 06:52	06/25/20 06:52	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:41	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 05:39	06/22/20 05:39	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 22:45	06/21/20 22:45	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 07:50	CAG	Mt. Juliet, TN

MW-118 L1230685-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:20
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:23	06/26/20 18:23	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 07:09	06/25/20 07:09	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 07:26	06/25/20 07:26	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:45	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:29	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 06:00	06/22/20 06:00	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 23:05	06/21/20 23:05	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 08:16	CAG	Mt. Juliet, TN

MW-119 L1230685-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:45
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:24	06/26/20 18:24	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 07:42	06/25/20 07:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 07:59	06/25/20 07:59	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:49	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 06:21	06/22/20 06:21	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496570	1	06/21/20 23:26	06/21/20 23:26	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496548	1	06/22/20 00:14	06/23/20 08:42	CAG	Mt. Juliet, TN

MW-126A L1230685-09 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:05
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496362	1	06/23/20 18:41	06/23/20 22:49	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:25	06/26/20 18:25	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 08:50	06/25/20 08:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	50	06/25/20 09:07	06/25/20 09:07	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:53	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:52	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 06:41	06/22/20 06:41	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 16:21	06/21/20 16:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 03:08	CAG	Mt. Juliet, TN

MW-126B L1230685-10 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:26	06/26/20 18:26	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 09:24	06/25/20 09:24	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 18:22	06/25/20 18:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 21:56	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:56	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 07:02	06/22/20 07:02	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 16:40	06/21/20 16:40	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 03:34	CAG	Mt. Juliet, TN

MW-131 L1230685-11 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:20
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:28	06/26/20 18:28	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 09:58	06/25/20 09:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	10	06/25/20 10:48	06/25/20 10:48	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 22:00	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:59	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 07:23	06/22/20 07:23	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499237	50	06/25/20 20:36	06/25/20 20:36	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 04:00	CAG	Mt. Juliet, TN

MW-57 L1230685-12 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	5	06/26/20 18:29	06/26/20 18:29	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	10	06/25/20 11:05	06/25/20 11:05	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 11:22	06/25/20 11:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 22:04	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 15:02	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 07:43	06/22/20 07:43	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 16:59	06/21/20 16:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 04:26	CAG	Mt. Juliet, TN

KWB-12A L1230685-13 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:05
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	5	06/26/20 18:31	06/26/20 18:31	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:29	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 19:13	06/25/20 19:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 12:30	06/25/20 12:30	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:05	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:01	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:45	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:20	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 22:15	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495380	1	06/24/20 12:00	06/25/20 14:45	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 08:04	06/22/20 08:04	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 17:18	06/21/20 17:18	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 04:52	CAG	Mt. Juliet, TN

KWB-12B L1230685-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:55
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	5	06/26/20 18:36	06/26/20 18:36	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:30	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 19:30	06/25/20 19:30	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 13:04	06/25/20 13:04	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:07	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:03	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:48	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:24	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 22:18	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 19:31	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 08:24	06/22/20 08:24	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 17:37	06/21/20 17:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 05:18	CAG	Mt. Juliet, TN

KWB-13 L1230685-15 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 17:55
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	5	06/26/20 18:38	06/26/20 18:38	JER	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:31	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 19:46	06/25/20 19:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 13:38	06/25/20 13:38	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:09	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:11	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 12:57	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 22:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 23:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 19:46	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 17:56	06/21/20 17:56	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 05:44	CAG	Mt. Juliet, TN

MW-103 L1230685-16 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 13:10
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	10	06/26/20 18:39	06/26/20 18:39	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 20:03	06/25/20 20:03	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 14:11	06/25/20 14:11	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 23:42	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 19:49	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	5	06/24/20 11:47	06/25/20 20:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	10	06/22/20 08:45	06/22/20 08:45	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	20	06/21/20 21:07	06/21/20 21:07	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 06:10	CAG	Mt. Juliet, TN

MW-104 L1230685-17 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:15
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	5	06/26/20 18:40	06/26/20 18:40	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 14:28	06/25/20 14:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	10	06/25/20 15:50	06/25/20 15:50	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495349	1	06/24/20 12:27	06/24/20 23:45	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:06	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1496563	1	06/22/20 09:05	06/22/20 09:05	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 18:16	06/21/20 18:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 06:36	CAG	Mt. Juliet, TN

MW-64 L1230685-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	2	06/26/20 18:41	06/26/20 18:41	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 16:24	06/25/20 16:24	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	10	06/25/20 16:57	06/25/20 16:57	ELN	Mt. Juliet, TN

MW-64 L1230685-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 13:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:09	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	100	06/24/20 18:41	06/24/20 18:41	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	500	06/21/20 22:04	06/21/20 22:04	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 07:02	CAG	Mt. Juliet, TN

MW-102 L1230685-19 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 16:50
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:43	06/26/20 18:43	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 17:14	06/25/20 17:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	10	06/25/20 17:31	06/25/20 17:31	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:13	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:13	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	100	06/24/20 19:03	06/24/20 19:03	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499237	100	06/25/20 20:56	06/25/20 20:56	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 07:28	CAG	Mt. Juliet, TN

MW-125 L1230685-20 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:55
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498636	1	06/26/20 18:44	06/26/20 18:44	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	1	06/25/20 17:48	06/25/20 17:48	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497340	100	06/25/20 18:05	06/25/20 18:05	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:17	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	1	06/24/20 17:35	06/24/20 17:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 18:35	06/21/20 18:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499237	1	06/25/20 20:15	06/25/20 20:15	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/25/20 10:06	CAG	Mt. Juliet, TN

UG-3R L1230685-22 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 16:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:01	06/25/20 19:01	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:32	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 00:37	06/25/20 00:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 00:55	06/25/20 00:55	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:11	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:13	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 11:51	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:30	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:20	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:20	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 19:34	06/22/20 19:34	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 18:53	06/21/20 18:53	JHH	Mt. Juliet, TN

UG-3R L1230685-22 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 16:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 08:20	CAG	Mt. Juliet, TN

UG-4 L1230685-23 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/15/20 17:20
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496357	1	06/22/20 22:32	06/22/20 23:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:03	06/25/20 19:03	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:33	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 01:13	06/25/20 01:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	100	06/25/20 01:48	06/25/20 01:48	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	5	06/25/20 01:31	06/25/20 01:31	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:13	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:15	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 13:00	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:34	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:24	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:24	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	1	06/24/20 17:57	06/24/20 17:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 19:12	06/21/20 19:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1495269	1	06/19/20 05:32	06/22/20 07:35	JDG	Mt. Juliet, TN

UG-1 L1230685-24 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/15/20 18:10
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496357	1	06/22/20 22:32	06/22/20 23:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	5	06/25/20 19:05	06/25/20 19:05	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:34	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 02:06	06/25/20 02:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 02:24	06/25/20 02:24	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:15	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:17	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 13:03	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:37	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:43	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:28	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	1	06/24/20 18:19	06/24/20 18:19	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 19:31	06/21/20 19:31	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1495269	1	06/19/20 05:32	06/22/20 07:58	JDG	Mt. Juliet, TN

UG-2 L1230685-25 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/15/20 19:10
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1496357	1	06/22/20 22:32	06/22/20 23:54	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	5	06/25/20 19:06	06/25/20 19:06	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:38	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 02:42	06/25/20 02:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	20	06/25/20 04:29	06/25/20 04:29	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:17	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:19	TCT	Mt. Juliet, TN

UG-2 L1230685-25 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/15/20 19:10 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 13:06	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:40	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:47	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:31	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 20:43	06/22/20 20:43	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 19:50	06/21/20 19:50	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1495269	1	06/19/20 05:32	06/22/20 08:20	JDG	Mt. Juliet, TN

MW-101 L1230685-26 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 15:05 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:07	06/25/20 19:07	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 04:47	06/25/20 04:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	10	06/25/20 18:29	06/25/20 18:29	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:50	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:35	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 21:06	06/22/20 21:06	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 20:09	06/21/20 20:09	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 08:46	CAG	Mt. Juliet, TN

MW-39 L1230685-27 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 11:35 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:15	06/25/20 19:15	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 05:23	06/25/20 05:23	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	20	06/25/20 05:59	06/25/20 05:59	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:54	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:54	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 21:29	06/22/20 21:29	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 20:29	06/21/20 20:29	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 09:12	CAG	Mt. Juliet, TN

MW-98 L1230685-28 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 13:55 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497357	1	06/23/20 19:19	06/23/20 23:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	100	06/25/20 19:16	06/25/20 19:16	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 06:35	06/25/20 06:35	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 07:29	06/25/20 07:29	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 14:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 20:57	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497608	20	06/24/20 19:25	06/24/20 19:25	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	50	06/21/20 21:26	06/21/20 21:26	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 09:38	CAG	Mt. Juliet, TN

RW-10 L1230685-29 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:17	06/25/20 19:17	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 07:47	06/25/20 07:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	20	06/25/20 08:04	06/25/20 08:04	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:01	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 22:14	06/22/20 22:14	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496569	1	06/21/20 20:48	06/21/20 20:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 10:04	CAG	Mt. Juliet, TN

MW-40 L1230685-30 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	10	06/25/20 19:18	06/25/20 19:18	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 08:22	06/25/20 08:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	20	06/25/20 08:40	06/25/20 08:40	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:05	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:05	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497063	1	06/22/20 22:37	06/22/20 22:37	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 02:12	06/22/20 02:12	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 10:30	CAG	Mt. Juliet, TN

MW-41 L1230685-31 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 10:40
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:20	06/25/20 19:20	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 08:58	06/25/20 08:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 09:16	06/25/20 09:16	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:09	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:08	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/23/20 22:32	06/23/20 22:32	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 02:32	06/22/20 02:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 10:55	CAG	Mt. Juliet, TN

RW-9 L1230685-32 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 12:35
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	50	06/25/20 19:21	06/25/20 19:21	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 09:47	06/25/20 09:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	20	06/25/20 10:04	06/25/20 10:04	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:12	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/23/20 22:54	06/23/20 22:54	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 02:53	06/22/20 02:53	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496549	1	06/22/20 00:12	06/24/20 11:21	CAG	Mt. Juliet, TN

MW-29 L1230685-33 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 10:20 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:22	06/25/20 19:22	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 10:22	06/25/20 10:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 11:16	06/25/20 11:16	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:16	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:16	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 22:12	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/23/20 23:16	06/23/20 23:16	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 03:14	06/22/20 03:14	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 15:52	TJD	Mt. Juliet, TN

RW-#16B L1230685-34 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 09:40 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:25	06/25/20 19:25	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 11:34	06/25/20 11:34	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	100	06/25/20 11:52	06/25/20 11:52	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:35	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495381	1	06/24/20 11:47	06/25/20 21:19	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 03:34	06/22/20 03:34	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 16:17	TJD	Mt. Juliet, TN

MW-106 L1230685-35 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 16:25 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	200	06/25/20 19:30	06/25/20 19:30	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 12:10	06/25/20 12:10	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 12:28	06/25/20 12:28	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:39	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:14	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 12:55	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	200	06/23/20 23:38	06/23/20 23:38	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499172	100	06/25/20 15:43	06/25/20 15:43	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	10	06/23/20 00:34	06/26/20 10:21	JDG	Mt. Juliet, TN

MW-139 L1230685-36 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/16/20 11:45 | Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:31	06/25/20 19:31	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 12:46	06/25/20 12:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 13:04	06/25/20 13:04	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:43	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 12:58	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 00:00	06/24/20 00:00	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 03:55	06/22/20 03:55	JHH	Mt. Juliet, TN

MW-139 L1230685-36 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/16/20 11:45	06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 16:43	TJD	Mt. Juliet, TN

MW-50 L1230685-37 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/16/20 12:35	06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1500391	1	06/27/20 18:18	06/27/20 18:38	TH	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	100	06/25/20 19:34	06/25/20 19:34	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 13:22	06/25/20 13:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 13:39	06/25/20 13:39	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:46	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:20	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 04:16	06/22/20 04:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 17:09	TJD	Mt. Juliet, TN

MW-91 L1230685-38 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/16/20 14:00	06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	200	06/25/20 19:35	06/25/20 19:35	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 13:57	06/25/20 13:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 14:51	06/25/20 14:51	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495350	1	06/24/20 22:42	06/25/20 15:50	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:23	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:05	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	100	06/24/20 00:22	06/24/20 00:22	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	100	06/22/20 07:22	06/22/20 07:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	5	06/23/20 00:34	06/26/20 09:55	JDG	Mt. Juliet, TN

MW-90 L1230685-39 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/16/20 14:45	06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	50	06/25/20 19:36	06/25/20 19:36	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 15:09	06/25/20 15:09	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	50	06/25/20 15:27	06/25/20 15:27	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:27	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:08	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:11	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 00:44	06/24/20 00:44	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 04:37	06/22/20 04:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 09:29	JDG	Mt. Juliet, TN

MW-96 L1230685-40 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 15:30
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	50	06/25/20 19:37	06/25/20 19:37	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 15:45	06/25/20 15:45	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	10	06/25/20 16:24	06/25/20 16:24	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:30	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:11	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:34	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	50	06/24/20 01:06	06/24/20 01:06	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499172	250	06/25/20 16:03	06/25/20 16:03	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 18:27	TJD	Mt. Juliet, TN

MW-95 L1230685-41 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 16:45
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498637	1	06/25/20 19:39	06/25/20 19:39	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	1	06/25/20 16:59	06/25/20 16:59	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497343	10	06/25/20 17:35	06/25/20 17:35	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 01:28	06/24/20 01:28	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 04:57	06/22/20 04:57	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/25/20 18:52	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1496709	2.38	06/23/20 06:45	06/23/20 17:37	AO	Mt. Juliet, TN

DUP-REST-02 L1230685-42 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:25
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	10	06/26/20 13:54	06/26/20 13:54	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 04:28	06/24/20 04:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	20	06/24/20 04:43	06/24/20 04:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:36	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:25	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:40	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 01:50	06/24/20 01:50	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498555	1	06/24/20 22:46	06/24/20 22:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 09:04	JDG	Mt. Juliet, TN

DUP-REST-05 L1230685-43 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 12:00
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497359	1	06/23/20 19:19	06/23/20 23:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	10	06/26/20 13:55	06/26/20 13:55	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:41	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 12:58	06/24/20 12:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 08:24	06/24/20 08:24	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:19	TCT	Mt. Juliet, TN

DUP-REST-05 L1230685-43 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 12:00
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:21	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495344	1	06/25/20 09:02	06/25/20 13:09	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:44	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:40	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:28	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 02:12	06/24/20 02:12	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 05:18	06/22/20 05:18	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 08:38	JDG	Mt. Juliet, TN

EB-REST-02 L1230685-44 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:35
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497364	1	06/23/20 11:37	06/23/20 12:32	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	1	06/26/20 13:56	06/26/20 13:56	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 08:39	06/24/20 08:39	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:43	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:32	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:46	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1497847	1	06/24/20 02:34	06/24/20 02:34	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 05:39	06/22/20 05:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 02:36	JDG	Mt. Juliet, TN

EB-REST-05 L1230685-45 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 14:15
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497364	1	06/23/20 11:37	06/23/20 12:32	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	1	06/26/20 13:57	06/26/20 13:57	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1498827	1	06/25/20 15:00	06/25/20 22:42	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 08:54	06/24/20 08:54	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1495163	1	06/19/20 07:47	06/21/20 22:21	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1495279	1	06/19/20 07:50	06/21/20 21:23	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1495366	1	06/25/20 06:36	06/25/20 10:47	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1496573	1	06/22/20 18:50	06/23/20 04:42	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 01:46	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1495382	1	06/24/20 17:35	06/25/20 13:35	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498259	1	06/24/20 14:09	06/24/20 14:09	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 05:59	06/22/20 05:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 03:02	JDG	Mt. Juliet, TN

TRIP BLANK-REST-02 L1230685-46 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 00:00
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 01:30	06/22/20 01:30	JHH	Mt. Juliet, TN

TRIP BLANK-REST-04 L1230685-47 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 00:00
Received date/time: 06/18/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1496571	1	06/22/20 01:51	06/22/20 01:51	JHH	Mt. Juliet, TN

RW-#18A L1230685-48 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 09:50
Received date/time: 06/20/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497364	1	06/23/20 11:37	06/23/20 12:32	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	1	06/26/20 13:59	06/26/20 13:59	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	10	06/24/20 09:09	06/24/20 09:09	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 09:24	06/24/20 09:24	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 22:53	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1497198	1	06/24/20 08:04	06/24/20 14:59	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497269	1	06/23/20 09:39	06/23/20 09:39	JHH	Mt. Juliet, TN

MW-116 L1230685-49 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 11:15
Received date/time: 06/20/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1497364	1	06/23/20 11:37	06/23/20 12:32	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498640	1	06/26/20 14:00	06/26/20 14:00	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	1	06/24/20 13:13	06/24/20 13:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1497346	100	06/24/20 09:54	06/24/20 09:54	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1496574	1	06/22/20 16:35	06/22/20 21:48	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1497198	1	06/24/20 08:04	06/24/20 15:02	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498259	1	06/24/20 14:29	06/24/20 14:29	AV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497269	1	06/23/20 10:00	06/23/20 10:00	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1496551	1	06/23/20 00:34	06/26/20 03:28	JDG	Mt. Juliet, TN

TRIP BLANK-REST-03 L1230685-50 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/16/20 00:00
Received date/time: 06/20/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497269	1	06/23/20 08:57	06/23/20 08:57	JHH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 06/30/20 11:57
Level II Report - Version 2: 01/28/21 10:27

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2810		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 18:08	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:22	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	458		7.58	20.0	20	06/25/2020 03:12	WG1497340
Fluoride	0.915		0.0640	0.150	1	06/25/2020 02:38	WG1497340
Sulfate	834		11.9	100	20	06/25/2020 03:12	WG1497340

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/21/2020 21:51	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:55	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.418		0.0254	0.200	1	06/25/2020 10:05	WG1495366
Boron,Dissolved	0.439		0.0254	0.200	1	06/25/2020 12:34	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00153	J	0.000735	0.00200	1	06/25/2020 14:05	WG1495380
Arsenic,Dissolved	0.00116	J	0.000735	0.00200	1	06/24/2020 21:15	WG1495349
Barium	0.0692		0.00778	0.0200	1	06/25/2020 14:05	WG1495380
Barium,Dissolved	0.0589		0.00778	0.0200	1	06/24/2020 21:15	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 14:05	WG1495380
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 21:15	WG1495349
Calcium	330		0.480	1.00	1	06/25/2020 14:05	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:05	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:15	WG1495349
Cobalt	U		0.000477	0.00200	1	06/25/2020 14:05	WG1495380
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 21:15	WG1495349
Iron	0.678		0.0489	0.100	1	06/25/2020 14:05	WG1495380
Iron,Dissolved	0.400		0.0489	0.100	1	06/24/2020 21:15	WG1495349
Lead	0.00545		0.00249	0.00500	1	06/25/2020 14:05	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:15	WG1495349
Manganese	2.57		0.00132	0.00500	1	06/25/2020 14:05	WG1495380
Manganese,Dissolved	2.40		0.00132	0.00500	1	06/24/2020 21:15	WG1495349
Nickel	0.00133	J	0.000952	0.00200	1	06/25/2020 14:05	WG1495380
Nickel,Dissolved	0.00117	J	0.000952	0.00200	1	06/24/2020 21:15	WG1495349

Received by OCD: 6/23/2021 4:05:29 PM

KWD-7
Collected date/time: 06/16/20 13:30

SAMPLE RESULTS - 01

L1230685

ONE LAB. NATIONWIDE.

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	U		0.534	2.00	1	06/25/2020 14:05	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 14:05	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 21:15	WG1495349
Sodium	275		0.630	2.00	1	06/25/2020 14:05	WG1495380
Uranium	U		0.00754	0.0200	1	06/25/2020 14:05	WG1495380
Uranium,Dissolved	U		0.00754	0.0200	1	06/24/2020 21:15	WG1495349
Vanadium	0.00412	J	0.000986	0.00500	1	06/25/2020 14:05	WG1495380
Vanadium,Dissolved	0.00370	J	0.000986	0.00500	1	06/24/2020 21:15	WG1495349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 21:02	WG1496570
Benzene	0.0545		0.0000941	0.00100	1	06/21/2020 21:02	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 21:02	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 21:02	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 21:02	WG1496570
n-Butylbenzene	0.000580	J	0.000157	0.00100	1	06/21/2020 21:02	WG1496570
sec-Butylbenzene	0.00879		0.000125	0.00100	1	06/21/2020 21:02	WG1496570
Carbon disulfide	0.00118		0.0000962	0.00100	1	06/21/2020 21:02	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 21:02	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 21:02	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 21:02	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 21:02	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 21:02	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 21:02	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 21:02	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 21:02	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 21:02	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 21:02	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 21:02	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 21:02	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 21:02	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 21:02	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 21:02	WG1496570
Ethylbenzene	0.00936		0.000137	0.00100	1	06/21/2020 21:02	WG1496570
Isopropylbenzene	0.0409		0.000105	0.00100	1	06/21/2020 21:02	WG1496570
p-Isopropyltoluene	0.00161		0.000120	0.00100	1	06/21/2020 21:02	WG1496570
2-Butanone (MEK)	0.160		0.00119	0.0100	1	06/21/2020 21:02	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 21:02	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 21:02	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 21:02	WG1496570
Methyl tert-butyl ether	0.00932		0.000101	0.00100	1	06/21/2020 21:02	WG1496570
Naphthalene	0.00822		0.00100	0.00500	1	06/21/2020 21:02	WG1496570
n-Propylbenzene	0.0205		0.0000993	0.00100	1	06/21/2020 21:02	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 21:02	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 21:02	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 21:02	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 21:02	WG1496570
Toluene	0.000536	J	0.000278	0.00100	1	06/21/2020 21:02	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 21:02	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 21:02	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 21:02	WG1496570
1,2,4-Trimethylbenzene	0.0876		0.000322	0.00100	1	06/21/2020 21:02	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 21:02	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 21:02	WG1496570

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	0.00226		0.000174	0.00100	1	06/21/2020 21:02	WG1496570
m&p-Xylene	0.0390		0.000430	0.00200	1	06/21/2020 21:02	WG1496570
Xylenes, Total	0.0413		0.000174	0.00300	1	06/21/2020 21:02	WG1496570
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 21:02*	WG1496570
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/21/2020 21:02*	WG1496570
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/21/2020 21:02*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.29		0.0247	0.100	1	06/23/2020 05:41	WG1496548
(S) o-Terphenyl	*115*			*31.0-160*		*06/23/2020 05:41*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3180		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0536	J	0.0500	0.100	1	06/26/2020 18:10	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:25	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	676		19.0	50.0	50	06/25/2020 04:03	WG1497340
Fluoride	0.753		0.0640	0.150	1	06/25/2020 03:46	WG1497340
Sulfate	1180		29.7	250	50	06/25/2020 04:03	WG1497340

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 21:53	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:57	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.380		0.0254	0.200	1	06/25/2020 10:08	WG1495366
Boron,Dissolved	0.390		0.0254	0.200	1	06/25/2020 12:38	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0111		0.000735	0.00200	1	06/25/2020 14:12	WG1495380
Arsenic,Dissolved	0.0103		0.000735	0.00200	1	06/24/2020 21:18	WG1495349
Barium	0.0329		0.00778	0.0200	1	06/25/2020 14:12	WG1495380
Barium,Dissolved	0.0297		0.00778	0.0200	1	06/24/2020 21:18	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 14:12	WG1495380
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 21:18	WG1495349
Calcium	408		0.480	1.00	1	06/25/2020 14:12	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:12	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:18	WG1495349
Cobalt	0.00371		0.000477	0.00200	1	06/25/2020 14:12	WG1495380
Cobalt,Dissolved	0.00386		0.000477	0.00200	1	06/24/2020 21:18	WG1495349
Iron	7.33		0.0489	0.100	1	06/25/2020 14:12	WG1495380
Iron,Dissolved	7.20		0.0489	0.100	1	06/24/2020 21:18	WG1495349
Lead	0.00307	J	0.00249	0.00500	1	06/25/2020 14:12	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:18	WG1495349
Manganese	0.570		0.00132	0.00500	1	06/25/2020 14:12	WG1495380
Manganese,Dissolved	0.580		0.00132	0.00500	1	06/24/2020 21:18	WG1495349
Nickel	0.00429		0.000952	0.00200	1	06/25/2020 14:12	WG1495380
Nickel,Dissolved	0.00423		0.000952	0.00200	1	06/24/2020 21:18	WG1495349

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.800	J	0.534	2.00	1	06/25/2020 14:12	WG1495380
Selenium	0.00104	J	0.000657	0.00200	1	06/25/2020 14:12	WG1495380
Selenium,Dissolved	0.000928	J	0.000657	0.00200	1	06/24/2020 21:18	WG1495349
Sodium	319		0.630	2.00	1	06/25/2020 14:12	WG1495380
Uranium	0.0143	J	0.00754	0.0200	1	06/25/2020 14:12	WG1495380
Uranium,Dissolved	0.0136	J	0.00754	0.0200	1	06/24/2020 21:18	WG1495349
Vanadium	0.00286	J	0.000986	0.00500	1	06/25/2020 14:12	WG1495380
Vanadium,Dissolved	0.00207	J	0.000986	0.00500	1	06/24/2020 21:18	WG1495349

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.444		0.0314	0.100	1	06/22/2020 04:17	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*06/22/2020 04:17*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 21:22	WG1496570
Benzene	0.000492	J	0.0000941	0.00100	1	06/21/2020 21:22	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 21:22	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 21:22	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 21:22	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 21:22	WG1496570
sec-Butylbenzene	0.00210		0.000125	0.00100	1	06/21/2020 21:22	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 21:22	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 21:22	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 21:22	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 21:22	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 21:22	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 21:22	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 21:22	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 21:22	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 21:22	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 21:22	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 21:22	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 21:22	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 21:22	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 21:22	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 21:22	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 21:22	WG1496570
Ethylbenzene	0.000576	J	0.000137	0.00100	1	06/21/2020 21:22	WG1496570
Isopropylbenzene	0.00360		0.000105	0.00100	1	06/21/2020 21:22	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 21:22	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 21:22	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 21:22	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 21:22	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 21:22	WG1496570
Methyl tert-butyl ether	0.00359		0.000101	0.00100	1	06/21/2020 21:22	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 21:22	WG1496570
n-Propylbenzene	0.00125		0.0000993	0.00100	1	06/21/2020 21:22	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 21:22	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 21:22	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 21:22	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 21:22	WG1496570

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KWB-11A
Collected date/time: 06/16/20 14:25
L1230685

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	06/21/2020 21:22	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 21:22	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 21:22	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 21:22	WG1496570
1,2,4-Trimethylbenzene	0.0486		0.000322	0.00100	1	06/21/2020 21:22	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 21:22	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 21:22	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 21:22	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 21:22	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 21:22	WG1496570
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 21:22*	WG1496570
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*06/21/2020 21:22*	WG1496570
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/21/2020 21:22*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	2.28		0.0247	0.100	1	06/23/2020 06:07	WG1496548
(S) o-Terphenyl	*100*			*31.0-160*		*06/23/2020 06:07*	WG1496548

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2880		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	3.34		0.0500	0.100	1	06/26/2020 18:11	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:28	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	369		37.9	100	100	06/25/2020 04:36	WG1497340
Fluoride	0.453		0.0640	0.150	1	06/25/2020 04:20	WG1497340
Sulfate	1710		59.4	500	100	06/25/2020 04:36	WG1497340

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/21/2020 22:03	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 20:59	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.0989	J	0.0254	0.200	1	06/25/2020 10:12	WG1495366
Boron,Dissolved	0.115	J	0.0254	0.200	1	06/25/2020 12:42	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00119	J	0.000735	0.00200	1	06/25/2020 14:15	WG1495380
Arsenic,Dissolved	0.00138	J	0.000735	0.00200	1	06/24/2020 21:31	WG1495349
Barium	0.0144	J	0.00778	0.0200	1	06/25/2020 14:15	WG1495380
Barium,Dissolved	0.0130	J	0.00778	0.0200	1	06/24/2020 21:31	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 14:15	WG1495380
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 21:31	WG1495349
Calcium	515		0.480	1.00	1	06/25/2020 14:15	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:15	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:31	WG1495349
Cobalt	U		0.000477	0.00200	1	06/25/2020 14:15	WG1495380
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 21:31	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:15	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:31	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:15	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:31	WG1495349
Manganese	0.00213	J	0.00132	0.00500	1	06/25/2020 14:15	WG1495380
Manganese,Dissolved	0.00148	J	0.00132	0.00500	1	06/24/2020 21:31	WG1495349
Nickel	U		0.000952	0.00200	1	06/25/2020 14:15	WG1495380
Nickel,Dissolved	U		0.000952	0.00200	1	06/24/2020 21:31	WG1495349

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	2.24		0.534	2.00	1	06/25/2020 14:15	WG1495380
Selenium	0.00865		0.000657	0.00200	1	06/25/2020 14:15	WG1495380
Selenium,Dissolved	0.00822		0.000657	0.00200	1	06/24/2020 21:31	WG1495349
Sodium	97.1		0.630	2.00	1	06/25/2020 14:15	WG1495380
Uranium	0.0125	J	0.00754	0.0200	1	06/25/2020 14:15	WG1495380
Uranium,Dissolved	0.0117	J	0.00754	0.0200	1	06/24/2020 21:31	WG1495349
Vanadium	0.00855		0.000986	0.00500	1	06/25/2020 14:15	WG1495380
Vanadium,Dissolved	0.00849		0.000986	0.00500	1	06/24/2020 21:31	WG1495349

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 04:38	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*06/22/2020 04:38*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 21:43	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 21:43	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 21:43	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 21:43	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 21:43	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 21:43	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 21:43	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 21:43	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 21:43	WG1496570
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 21:43	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 21:43	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 21:43	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 21:43	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 21:43	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 21:43	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 21:43	WG1496570
1,2-Dichloroethane	0.000210	J	0.0000819	0.00100	1	06/21/2020 21:43	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 21:43	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 21:43	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 21:43	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 21:43	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 21:43	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 21:43	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 21:43	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 21:43	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 21:43	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 21:43	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 21:43	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 21:43	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 21:43	WG1496570
Methyl tert-butyl ether	0.00140		0.000101	0.00100	1	06/21/2020 21:43	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 21:43	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 21:43	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 21:43	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 21:43	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 21:43	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 21:43	WG1496570

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Collected date/time: 06/16/20 15:15
L1230685

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/21/2020 21:43	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 21:43	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 21:43	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 21:43	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 21:43	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 21:43	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 21:43	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 21:43	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 21:43	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 21:43	WG1496570
(S) Toluene-d8	*103*			*80.0-120*		*06/21/2020 21:43*	WG1496570
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/21/2020 21:43*	WG1496570
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/21/2020 21:43*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0514	J	0.0247	0.100	1	06/23/2020 20:17	WG1496548
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/23/2020 20:17*	WG1496548

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4320		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.94		0.0500	0.100	1	06/26/2020 18:13	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	424		37.9	100	100	06/25/2020 05:44	WG1497340
Fluoride	2.09		0.0640	0.150	1	06/25/2020 05:27	WG1497340
Sulfate	2590		59.4	500	100	06/25/2020 05:44	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00388		0.000735	0.00200	1	06/25/2020 14:19	WG1495380
Arsenic,Dissolved	0.00415		0.000735	0.00200	1	06/24/2020 21:34	WG1495349
Barium	0.00892	J	0.00778	0.0200	1	06/25/2020 14:19	WG1495380
Barium,Dissolved	0.00879	J	0.00778	0.0200	1	06/24/2020 21:34	WG1495349
Calcium	475		0.480	1.00	1	06/25/2020 14:19	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:19	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:34	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:19	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:34	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:19	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:34	WG1495349
Manganese	0.115		0.00132	0.00500	1	06/25/2020 14:19	WG1495380
Manganese,Dissolved	0.109		0.00132	0.00500	1	06/24/2020 21:34	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 14:19	WG1495380
Selenium	0.00483		0.000657	0.00200	1	06/25/2020 14:19	WG1495380
Selenium,Dissolved	0.00556		0.000657	0.00200	1	06/24/2020 21:34	WG1495349
Sodium	187		0.630	2.00	1	06/25/2020 14:19	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 04:58	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*06/22/2020 04:58*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 22:04	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 22:04	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 22:04	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 22:04	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 22:04	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 22:04	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 22:04	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 22:04	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 22:04	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 22:04	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 22:04	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 22:04	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 22:04	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 22:04	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 22:04	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 22:04	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 22:04	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 22:04	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 22:04	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 22:04	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 22:04	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 22:04	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 22:04	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 22:04	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 22:04	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 22:04	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 22:04	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 22:04	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 22:04	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 22:04	WG1496570
Methyl tert-butyl ether	0.00126		0.000101	0.00100	1	06/21/2020 22:04	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 22:04	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 22:04	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 22:04	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 22:04	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 22:04	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 22:04	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 22:04	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 22:04	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 22:04	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 22:04	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 22:04	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 22:04	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 22:04	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 22:04	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 22:04	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 22:04	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 22:04*	WG1496570
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*06/21/2020 22:04*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 22:04*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0430	J	0.0247	0.100	1	06/23/2020 20:43	WG1496548
(S) o-Terphenyl	*86.8*			*31.0-160*		*06/23/2020 20:43*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3470		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.478	J5	0.0500	0.100	1	06/26/2020 18:14	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	251		37.9	100	100	06/25/2020 06:18	WG1497340
Fluoride	2.17		0.0640	0.150	1	06/25/2020 06:01	WG1497340
Sulfate	2060		59.4	500	100	06/25/2020 06:18	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00348		0.000735	0.00200	1	06/25/2020 14:22	WG1495380
Arsenic,Dissolved	0.00334		0.000735	0.00200	1	06/24/2020 21:38	WG1495349
Barium	0.0145	J	0.00778	0.0200	1	06/25/2020 14:22	WG1495380
Barium,Dissolved	0.0138	J	0.00778	0.0200	1	06/24/2020 21:38	WG1495349
Calcium	586		0.480	1.00	1	06/25/2020 14:22	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:22	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:38	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:22	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:38	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:22	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:38	WG1495349
Manganese	0.980		0.00132	0.00500	1	06/25/2020 14:22	WG1495380
Manganese,Dissolved	0.997		0.00132	0.00500	1	06/24/2020 21:38	WG1495349
Potassium	2.42		0.534	2.00	1	06/25/2020 14:22	WG1495380
Selenium	0.00355		0.000657	0.00200	1	06/25/2020 14:22	WG1495380
Selenium,Dissolved	0.00352		0.000657	0.00200	1	06/24/2020 21:38	WG1495349
Sodium	127		0.630	2.00	1	06/25/2020 14:22	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 05:19	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*06/22/2020 05:19*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 22:24	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 22:24	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 22:24	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 22:24	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 22:24	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 22:24	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 22:24	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 22:24	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 22:24	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 22:24	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 22:24	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 22:24	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 22:24	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 22:24	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 22:24	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 22:24	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 22:24	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 22:24	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 22:24	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 22:24	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 22:24	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 22:24	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 22:24	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 22:24	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 22:24	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 22:24	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 22:24	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 22:24	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 22:24	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 22:24	WG1496570
Methyl tert-butyl ether	0.00475		0.000101	0.00100	1	06/21/2020 22:24	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 22:24	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 22:24	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 22:24	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 22:24	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 22:24	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 22:24	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 22:24	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 22:24	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 22:24	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 22:24	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 22:24	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 22:24	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 22:24	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 22:24	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 22:24	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 22:24	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 22:24*	WG1496570
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*06/21/2020 22:24*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 22:24*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.436		0.0247	0.100	1	06/23/2020 07:24	WG1496548
(S) o-Terphenyl	*90.5*			*31.0-160*		*06/23/2020 07:24*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3640		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.46		0.0500	0.100	1	06/26/2020 18:21	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	299		37.9	100	100	06/25/2020 06:52	WG1497340
Fluoride	3.43		0.0640	0.150	1	06/25/2020 06:35	WG1497340
Sulfate	2300		59.4	500	100	06/25/2020 06:52	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00249		0.000735	0.00200	1	06/25/2020 14:25	WG1495380
Arsenic,Dissolved	0.00262		0.000735	0.00200	1	06/24/2020 21:41	WG1495349
Barium	0.0115	J	0.00778	0.0200	1	06/25/2020 14:25	WG1495380
Barium,Dissolved	0.00934	J	0.00778	0.0200	1	06/24/2020 21:41	WG1495349
Calcium	578		0.480	1.00	1	06/25/2020 14:25	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:25	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:41	WG1495349
Iron	0.121		0.0489	0.100	1	06/25/2020 14:25	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:41	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:25	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:41	WG1495349
Manganese	0.00283	J	0.00132	0.00500	1	06/25/2020 14:25	WG1495380
Manganese,Dissolved	0.00162	J	0.00132	0.00500	1	06/24/2020 21:41	WG1495349
Potassium	6.39		0.534	2.00	1	06/25/2020 14:25	WG1495380
Selenium	0.00969		0.000657	0.00200	1	06/25/2020 14:25	WG1495380
Selenium,Dissolved	0.00942		0.000657	0.00200	1	06/24/2020 21:41	WG1495349
Sodium	129		0.630	2.00	1	06/25/2020 14:25	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 05:39	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*06/22/2020 05:39*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 22:45	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 22:45	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 22:45	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 22:45	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 22:45	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 22:45	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 22:45	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 22:45	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 22:45	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 22:45	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 22:45	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 22:45	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 22:45	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 22:45	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 22:45	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 22:45	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 22:45	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 22:45	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 22:45	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 22:45	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 22:45	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 22:45	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 22:45	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 22:45	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 22:45	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 22:45	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 22:45	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 22:45	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 22:45	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 22:45	WG1496570
Methyl tert-butyl ether	0.000222	J	0.000101	0.00100	1	06/21/2020 22:45	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 22:45	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 22:45	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 22:45	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 22:45	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 22:45	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 22:45	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 22:45	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 22:45	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 22:45	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 22:45	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 22:45	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 22:45	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 22:45	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 22:45	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 22:45	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 22:45	WG1496570
(S) Toluene-d8	*105*			*80.0-120*		*06/21/2020 22:45*	WG1496570
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*06/21/2020 22:45*	WG1496570
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/21/2020 22:45*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.109		0.0247	0.100	1	06/23/2020 07:50	WG1496548
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/23/2020 07:50*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4620		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.43		0.0500	0.100	1	06/26/2020 18:23	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	290		37.9	100	100	06/25/2020 07:26	WG1497340
Fluoride	5.20		0.0640	0.150	1	06/25/2020 07:09	WG1497340
Sulfate	2950		59.4	500	100	06/25/2020 07:26	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00806		0.000735	0.00200	1	06/25/2020 14:29	WG1495380
Arsenic,Dissolved	0.00796		0.000735	0.00200	1	06/24/2020 21:45	WG1495349
Barium	0.0122	J	0.00778	0.0200	1	06/25/2020 14:29	WG1495380
Barium,Dissolved	0.0116	J	0.00778	0.0200	1	06/24/2020 21:45	WG1495349
Calcium	586		0.480	1.00	1	06/25/2020 14:29	WG1495380
Chromium	0.00175	J	0.00149	0.00200	1	06/25/2020 14:29	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:45	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:29	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:45	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:29	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:45	WG1495349
Manganese	U		0.00132	0.00500	1	06/25/2020 14:29	WG1495380
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 21:45	WG1495349
Potassium	3.45		0.534	2.00	1	06/25/2020 14:29	WG1495380
Selenium	0.0129		0.000657	0.00200	1	06/25/2020 14:29	WG1495380
Selenium,Dissolved	0.0125		0.000657	0.00200	1	06/24/2020 21:45	WG1495349
Sodium	171		0.630	2.00	1	06/25/2020 14:29	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 06:00	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*06/22/2020 06:00*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 23:05	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 23:05	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 23:05	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 23:05	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 23:05	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 23:05	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 23:05	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 23:05	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 23:05	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 23:05	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 23:05	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 23:05	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 23:05	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 23:05	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 23:05	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 23:05	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 23:05	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 23:05	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 23:05	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 23:05	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 23:05	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 23:05	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 23:05	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 23:05	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 23:05	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 23:05	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 23:05	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 23:05	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 23:05	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 23:05	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 23:05	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 23:05	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 23:05	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 23:05	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 23:05	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 23:05	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 23:05	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 23:05	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 23:05	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 23:05	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 23:05	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 23:05	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 23:05	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 23:05	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 23:05	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 23:05	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 23:05	WG1496570
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 23:05*	WG1496570
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*06/21/2020 23:05*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 23:05*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/23/2020 08:16	WG1496548
(S) o-Terphenyl	*88.4*			*31.0-160*		*06/23/2020 08:16*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4500		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.281		0.0500	0.100	1	06/26/2020 18:24	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	345		37.9	100	100	06/25/2020 07:59	WG1497340
Fluoride	1.66		0.0640	0.150	1	06/25/2020 07:42	WG1497340
Sulfate	2990		59.4	500	100	06/25/2020 07:59	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00394		0.000735	0.00200	1	06/25/2020 14:49	WG1495380
Arsenic,Dissolved	0.00370		0.000735	0.00200	1	06/24/2020 21:49	WG1495349
Barium	0.0105	J	0.00778	0.0200	1	06/25/2020 14:49	WG1495380
Barium,Dissolved	0.00958	J	0.00778	0.0200	1	06/24/2020 21:49	WG1495349
Calcium	629		0.480	1.00	1	06/25/2020 14:49	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:49	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:49	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:49	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:49	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:49	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:49	WG1495349
Manganese	0.00689		0.00132	0.00500	1	06/25/2020 14:49	WG1495380
Manganese,Dissolved	0.00646		0.00132	0.00500	1	06/24/2020 21:49	WG1495349
Potassium	0.637	J	0.534	2.00	1	06/25/2020 14:49	WG1495380
Selenium	0.00466		0.000657	0.00200	1	06/25/2020 14:49	WG1495380
Selenium,Dissolved	0.00484		0.000657	0.00200	1	06/24/2020 21:49	WG1495349
Sodium	202		0.630	2.00	1	06/25/2020 14:49	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 06:21	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*06/22/2020 06:21*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 23:26	WG1496570
Benzene	U		0.0000941	0.00100	1	06/21/2020 23:26	WG1496570
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 23:26	WG1496570
Bromoform	U		0.000129	0.00100	1	06/21/2020 23:26	WG1496570
Bromomethane	U		0.000605	0.00500	1	06/21/2020 23:26	WG1496570
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 23:26	WG1496570
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 23:26	WG1496570
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 23:26	WG1496570
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 23:26	WG1496570

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/21/2020 23:26	WG1496570
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 23:26	WG1496570
Chloroethane	U		0.000192	0.00500	1	06/21/2020 23:26	WG1496570
Chloroform	U		0.000111	0.00500	1	06/21/2020 23:26	WG1496570
Chloromethane	U		0.000960	0.00250	1	06/21/2020 23:26	WG1496570
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 23:26	WG1496570
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 23:26	WG1496570
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 23:26	WG1496570
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 23:26	WG1496570
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 23:26	WG1496570
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 23:26	WG1496570
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 23:26	WG1496570
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/21/2020 23:26	WG1496570
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 23:26	WG1496570
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 23:26	WG1496570
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 23:26	WG1496570
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 23:26	WG1496570
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 23:26	WG1496570
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 23:26	WG1496570
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 23:26	WG1496570
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 23:26	WG1496570
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 23:26	WG1496570
Naphthalene	U		0.00100	0.00500	1	06/21/2020 23:26	WG1496570
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 23:26	WG1496570
Styrene	U		0.000118	0.00100	1	06/21/2020 23:26	WG1496570
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 23:26	WG1496570
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 23:26	WG1496570
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 23:26	WG1496570
Toluene	U		0.000278	0.00100	1	06/21/2020 23:26	WG1496570
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 23:26	WG1496570
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 23:26	WG1496570
Trichloroethene	U		0.000190	0.00100	1	06/21/2020 23:26	WG1496570
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 23:26	WG1496570
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 23:26	WG1496570
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 23:26	WG1496570
o-Xylene	U		0.000174	0.00100	1	06/21/2020 23:26	WG1496570
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 23:26	WG1496570
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 23:26	WG1496570
(S) Toluene-d8	*107*			*80.0-120*		*06/21/2020 23:26*	WG1496570
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*06/21/2020 23:26*	WG1496570
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/21/2020 23:26*	WG1496570

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.376		0.0247	0.100	1	06/23/2020 08:42	WG1496548
(S) o-Terphenyl	*86.8*			*31.0-160*		*06/23/2020 08:42*	WG1496548

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2680		14.1	50.0	1	06/23/2020 22:49	WG1496362

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 18:25	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	198		19.0	50.0	50	06/25/2020 09:07	WG1497340
Fluoride	0.869		0.0640	0.150	1	06/25/2020 08:50	WG1497340
Sulfate	1590		29.7	250	50	06/25/2020 09:07	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00110	J	0.000735	0.00200	1	06/25/2020 14:52	WG1495380
Arsenic,Dissolved	0.00101	J	0.000735	0.00200	1	06/24/2020 21:53	WG1495349
Barium	0.0157	J	0.00778	0.0200	1	06/25/2020 14:52	WG1495380
Barium,Dissolved	0.0135	J	0.00778	0.0200	1	06/24/2020 21:53	WG1495349
Calcium	357		0.480	1.00	1	06/25/2020 14:52	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:52	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:53	WG1495349
Iron	0.437		0.0489	0.100	1	06/25/2020 14:52	WG1495380
Iron,Dissolved	0.350		0.0489	0.100	1	06/24/2020 21:53	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:52	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:53	WG1495349
Manganese	0.617		0.00132	0.00500	1	06/25/2020 14:52	WG1495380
Manganese,Dissolved	0.620		0.00132	0.00500	1	06/24/2020 21:53	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 14:52	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 14:52	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 21:53	WG1495349
Sodium	152		0.630	2.00	1	06/25/2020 14:52	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0319	J	0.0314	0.100	1	06/22/2020 06:41	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*06/22/2020 06:41*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 16:21	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 16:21	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 16:21	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 16:21	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 16:21	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 16:21	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 16:21	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 16:21	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 16:21	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 16:21	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 16:21	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 16:21	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 16:21	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 16:21	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 16:21	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 16:21	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 16:21	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 16:21	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 16:21	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 16:21	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 16:21	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 16:21	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 16:21	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 16:21	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 16:21	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 16:21	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 16:21	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 16:21	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 16:21	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 16:21	WG1496569
Methyl tert-butyl ether	0.000248	J	0.000101	0.00100	1	06/21/2020 16:21	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 16:21	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 16:21	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 16:21	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 16:21	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 16:21	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 16:21	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 16:21	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 16:21	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 16:21	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 16:21	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 16:21	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 16:21	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 16:21	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 16:21	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 16:21	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 16:21	WG1496569
(S) Toluene-d8	*103*			*80.0-120*		*06/21/2020 16:21*	WG1496569
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 16:21*	WG1496569
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*06/21/2020 16:21*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.461		0.0247	0.100	1	06/24/2020 03:08	WG1496549
(S) o-Terphenyl	*95.3*			*31.0-160*		*06/24/2020 03:08*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4010		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.414		0.0500	0.100	1	06/26/2020 18:26	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	272		37.9	100	100	06/25/2020 18:22	WG1497340
Fluoride	0.784		0.0640	0.150	1	06/25/2020 09:24	WG1497340
Sulfate	2440		59.4	500	100	06/25/2020 18:22	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00346		0.000735	0.00200	1	06/25/2020 14:56	WG1495380
Arsenic,Dissolved	0.00390		0.000735	0.00200	1	06/24/2020 21:56	WG1495349
Barium	0.0100	J	0.00778	0.0200	1	06/25/2020 14:56	WG1495380
Barium,Dissolved	0.00876	J	0.00778	0.0200	1	06/24/2020 21:56	WG1495349
Calcium	539		0.480	1.00	1	06/25/2020 14:56	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:56	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 21:56	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 14:56	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 21:56	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:56	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 21:56	WG1495349
Manganese	0.0425		0.00132	0.00500	1	06/25/2020 14:56	WG1495380
Manganese,Dissolved	0.0456		0.00132	0.00500	1	06/24/2020 21:56	WG1495349
Potassium	2.27		0.534	2.00	1	06/25/2020 14:56	WG1495380
Selenium	0.00276		0.000657	0.00200	1	06/25/2020 14:56	WG1495380
Selenium,Dissolved	0.00302		0.000657	0.00200	1	06/24/2020 21:56	WG1495349
Sodium	210		0.630	2.00	1	06/25/2020 14:56	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 07:02	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*06/22/2020 07:02*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 16:40	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 16:40	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 16:40	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 16:40	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 16:40	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 16:40	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 16:40	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 16:40	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 16:40	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 16:40	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 16:40	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 16:40	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 16:40	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 16:40	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 16:40	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 16:40	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 16:40	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 16:40	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 16:40	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 16:40	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 16:40	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 16:40	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 16:40	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 16:40	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 16:40	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 16:40	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 16:40	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 16:40	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 16:40	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 16:40	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 16:40	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 16:40	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 16:40	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 16:40	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 16:40	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 16:40	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 16:40	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 16:40	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 16:40	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 16:40	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 16:40	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 16:40	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 16:40	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 16:40	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 16:40	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 16:40	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 16:40	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 16:40*	WG1496569
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/21/2020 16:40*	WG1496569
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/21/2020 16:40*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.461		0.0247	0.100	1	06/24/2020 03:34	WG1496549
(S) o-Terphenyl	*94.7*			*31.0-160*		*06/24/2020 03:34*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1270		7.05	25.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 18:28	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	283		3.79	10.0	10	06/25/2020 10:48	WG1497340
Fluoride	0.865		0.0640	0.150	1	06/25/2020 09:58	WG1497340
Sulfate	24.7		0.594	5.00	1	06/25/2020 09:58	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0241		0.000735	0.00200	1	06/25/2020 14:59	WG1495380
Arsenic,Dissolved	0.0237		0.000735	0.00200	1	06/24/2020 22:00	WG1495349
Barium	2.39		0.00778	0.0200	1	06/25/2020 14:59	WG1495380
Barium,Dissolved	2.32		0.00778	0.0200	1	06/24/2020 22:00	WG1495349
Calcium	153		0.480	1.00	1	06/25/2020 14:59	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:59	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 22:00	WG1495349
Iron	1.35		0.0489	0.100	1	06/25/2020 14:59	WG1495380
Iron,Dissolved	1.30		0.0489	0.100	1	06/24/2020 22:00	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:59	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 22:00	WG1495349
Manganese	0.294		0.00132	0.00500	1	06/25/2020 14:59	WG1495380
Manganese,Dissolved	0.300		0.00132	0.00500	1	06/24/2020 22:00	WG1495349
Potassium	U		0.534	2.00	1	06/25/2020 14:59	WG1495380
Selenium	U		0.000657	0.00200	1	06/25/2020 14:59	WG1495380
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 22:00	WG1495349
Sodium	163		0.630	2.00	1	06/25/2020 14:59	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	8.68		0.0314	0.100	1	06/22/2020 07:23	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*78.0-120*		*06/22/2020 07:23*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	06/25/2020 20:36	WG1499237
Benzene	0.907		0.00471	0.0500	50	06/25/2020 20:36	WG1499237
Bromodichloromethane	U		0.00680	0.0500	50	06/25/2020 20:36	WG1499237
Bromoform	U		0.00645	0.0500	50	06/25/2020 20:36	WG1499237
Bromomethane	U		0.0303	0.250	50	06/25/2020 20:36	WG1499237
n-Butylbenzene	U		0.00785	0.0500	50	06/25/2020 20:36	WG1499237
sec-Butylbenzene	U		0.00625	0.0500	50	06/25/2020 20:36	WG1499237
Carbon disulfide	U		0.00481	0.0500	50	06/25/2020 20:36	WG1499237
Carbon tetrachloride	U		0.00640	0.0500	50	06/25/2020 20:36	WG1499237

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00580	0.0500	50	06/25/2020 20:36	WG1499237
Chlorodibromomethane	U		0.00700	0.0500	50	06/25/2020 20:36	WG1499237
Chloroethane	U		0.00960	0.250	50	06/25/2020 20:36	WG1499237
Chloroform	U		0.00555	0.250	50	06/25/2020 20:36	WG1499237
Chloromethane	U		0.0480	0.125	50	06/25/2020 20:36	WG1499237
1,2-Dibromoethane	U		0.00630	0.0500	50	06/25/2020 20:36	WG1499237
1,1-Dichloroethane	U		0.00500	0.0500	50	06/25/2020 20:36	WG1499237
1,2-Dichloroethane	U		0.00409	0.0500	50	06/25/2020 20:36	WG1499237
1,1-Dichloroethene	U		0.00940	0.0500	50	06/25/2020 20:36	WG1499237
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	06/25/2020 20:36	WG1499237
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	06/25/2020 20:36	WG1499237
1,2-Dichloropropane	U		0.00745	0.0500	50	06/25/2020 20:36	WG1499237
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	06/25/2020 20:36	WG1499237
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	06/25/2020 20:36	WG1499237
Ethylbenzene	0.0171	J	0.00685	0.0500	50	06/25/2020 20:36	WG1499237
Isopropylbenzene	0.00743	J	0.00525	0.0500	50	06/25/2020 20:36	WG1499237
p-Isopropyltoluene	U		0.00600	0.0500	50	06/25/2020 20:36	WG1499237
2-Butanone (MEK)	U		0.0595	0.500	50	06/25/2020 20:36	WG1499237
2-Hexanone	U		0.0394	0.500	50	06/25/2020 20:36	WG1499237
Methylene Chloride	U		0.0215	0.250	50	06/25/2020 20:36	WG1499237
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	06/25/2020 20:36	WG1499237
Methyl tert-butyl ether	2.91		0.00505	0.0500	50	06/25/2020 20:36	WG1499237
Naphthalene	U		0.0500	0.250	50	06/25/2020 20:36	WG1499237
n-Propylbenzene	0.0121	J	0.00497	0.0500	50	06/25/2020 20:36	WG1499237
Styrene	U		0.00590	0.0500	50	06/25/2020 20:36	WG1499237
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	06/25/2020 20:36	WG1499237
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	06/25/2020 20:36	WG1499237
Tetrachloroethene	U		0.0150	0.0500	50	06/25/2020 20:36	WG1499237
Toluene	0.150		0.0139	0.0500	50	06/25/2020 20:36	WG1499237
1,1,1-Trichloroethane	U		0.00745	0.0500	50	06/25/2020 20:36	WG1499237
1,1,2-Trichloroethane	U		0.00790	0.0500	50	06/25/2020 20:36	WG1499237
Trichloroethene	U		0.00950	0.0500	50	06/25/2020 20:36	WG1499237
1,2,4-Trimethylbenzene	0.110		0.0161	0.0500	50	06/25/2020 20:36	WG1499237
1,3,5-Trimethylbenzene	0.0408	J	0.00520	0.0500	50	06/25/2020 20:36	WG1499237
Vinyl chloride	U		0.0117	0.0500	50	06/25/2020 20:36	WG1499237
o-Xylene	0.242		0.00870	0.0500	50	06/25/2020 20:36	WG1499237
m&p-Xylene	0.544		0.0215	0.100	50	06/25/2020 20:36	WG1499237
Xylenes, Total	0.786		0.00870	0.150	50	06/25/2020 20:36	WG1499237
(S) Toluene-d8	*103*			*80.0-120*		*06/25/2020 20:36*	WG1499237
(S) 4-Bromofluorobenzene	*99.2*			*77.0-126*		*06/25/2020 20:36*	WG1499237
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*06/25/2020 20:36*	WG1499237

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.83		0.0247	0.100	1	06/24/2020 04:00	WG1496549
(S) o-Terphenyl	*106*			*31.0-160*		*06/24/2020 04:00*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4840		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	13.8		0.250	0.500	5	06/26/2020 18:29	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	131		3.79	10.0	10	06/25/2020 11:05	WG1497340
Fluoride	2.63		0.640	1.50	10	06/25/2020 11:05	WG1497340
Sulfate	3190		59.4	500	100	06/25/2020 11:22	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00366		0.000735	0.00200	1	06/25/2020 15:02	WG1495380
Arsenic,Dissolved	0.00282		0.000735	0.00200	1	06/24/2020 22:04	WG1495349
Barium	0.0166	J	0.00778	0.0200	1	06/25/2020 15:02	WG1495380
Barium,Dissolved	0.0136	J	0.00778	0.0200	1	06/24/2020 22:04	WG1495349
Calcium	568		0.480	1.00	1	06/25/2020 15:02	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 15:02	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 22:04	WG1495349
Iron	0.358		0.0489	0.100	1	06/25/2020 15:02	WG1495380
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 22:04	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 15:02	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 22:04	WG1495349
Manganese	0.0473		0.00132	0.00500	1	06/25/2020 15:02	WG1495380
Manganese,Dissolved	0.0458		0.00132	0.00500	1	06/24/2020 22:04	WG1495349
Potassium	1.21	J	0.534	2.00	1	06/25/2020 15:02	WG1495380
Selenium	0.0114		0.000657	0.00200	1	06/25/2020 15:02	WG1495380
Selenium,Dissolved	0.0126		0.000657	0.00200	1	06/24/2020 22:04	WG1495349
Sodium	388		0.630	2.00	1	06/25/2020 15:02	WG1495380

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 07:43	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*06/22/2020 07:43*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 16:59	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 16:59	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 16:59	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 16:59	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 16:59	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 16:59	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 16:59	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 16:59	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 16:59	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 16:59	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 16:59	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 16:59	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 16:59	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 16:59	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 16:59	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 16:59	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 16:59	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 16:59	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 16:59	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 16:59	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 16:59	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 16:59	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 16:59	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 16:59	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 16:59	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 16:59	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 16:59	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 16:59	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 16:59	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 16:59	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 16:59	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 16:59	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 16:59	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 16:59	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 16:59	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 16:59	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 16:59	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 16:59	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 16:59	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 16:59	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 16:59	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 16:59	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 16:59	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 16:59	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 16:59	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 16:59	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 16:59	WG1496569
(S) Toluene-d8	*101*			*80.0-120*		*06/21/2020 16:59*	WG1496569
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/21/2020 16:59*	WG1496569
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/21/2020 16:59*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0661	J	0.0247	0.100	1	06/24/2020 04:26	WG1496549
(S) o-Terphenyl	*81.6*			*31.0-160*		*06/24/2020 04:26*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3490		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	7.15		0.250	0.500	5	06/26/2020 18:31	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:29	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	115		37.9	100	100	06/25/2020 12:30	WG1497340
Fluoride	0.587		0.0640	0.150	1	06/25/2020 19:13	WG1497340
Sulfate	2270		59.4	500	100	06/25/2020 12:30	WG1497340

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:05	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:01	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.552		0.0254	0.200	1	06/25/2020 10:20	WG1495366
Boron,Dissolved	0.561		0.0254	0.200	1	06/25/2020 12:45	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00217		0.000735	0.00200	1	06/25/2020 14:45	WG1495380
Arsenic,Dissolved	0.00223		0.000735	0.00200	1	06/24/2020 22:15	WG1495349
Barium	0.0182	J	0.00778	0.0200	1	06/25/2020 14:45	WG1495380
Barium,Dissolved	0.0177	J	0.00778	0.0200	1	06/24/2020 22:15	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 14:45	WG1495380
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 22:15	WG1495349
Calcium	519		0.480	1.00	1	06/25/2020 14:45	WG1495380
Chromium	U		0.00149	0.00200	1	06/25/2020 14:45	WG1495380
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 22:15	WG1495349
Cobalt	U		0.000477	0.00200	1	06/25/2020 14:45	WG1495380
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 22:15	WG1495349
Iron	0.195		0.0489	0.100	1	06/25/2020 14:45	WG1495380
Iron,Dissolved	0.180		0.0489	0.100	1	06/24/2020 22:15	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 14:45	WG1495380
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 22:15	WG1495349
Manganese	0.0199		0.00132	0.00500	1	06/25/2020 14:45	WG1495380
Manganese,Dissolved	0.0179		0.00132	0.00500	1	06/24/2020 22:15	WG1495349
Nickel	0.00213		0.000952	0.00200	1	06/25/2020 14:45	WG1495380
Nickel,Dissolved	0.00126	J	0.000952	0.00200	1	06/24/2020 22:15	WG1495349

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Collected date/time: 06/16/20 13:05

SAMPLE RESULTS - 13

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Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	1.46	J	0.534	2.00	1	06/25/2020 14:45	WG1495380
Selenium	0.00292		0.000657	0.00200	1	06/25/2020 14:45	WG1495380
Selenium,Dissolved	0.00343		0.000657	0.00200	1	06/24/2020 22:15	WG1495349
Sodium	135		0.630	2.00	1	06/25/2020 14:45	WG1495380
Uranium	0.0268		0.00754	0.0200	1	06/25/2020 14:45	WG1495380
Uranium,Dissolved	0.0265		0.00754	0.0200	1	06/24/2020 22:15	WG1495349
Vanadium	0.0112		0.000986	0.00500	1	06/25/2020 14:45	WG1495380
Vanadium,Dissolved	0.0117		0.000986	0.00500	1	06/24/2020 22:15	WG1495349

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 08:04	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*06/22/2020 08:04*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 17:18	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 17:18	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:18	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:18	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:18	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:18	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:18	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:18	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:18	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 17:18	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:18	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:18	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 17:18	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:18	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:18	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:18	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:18	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:18	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:18	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:18	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:18	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 17:18	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:18	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 17:18	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:18	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:18	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:18	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:18	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:18	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:18	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:18	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:18	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:18	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 17:18	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:18	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:18	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:18	WG1496569

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/21/2020 17:18	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:18	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:18	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 17:18	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:18	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:18	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:18	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:18	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:18	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:18	WG1496569
(S) Toluene-d8	*101*			*80.0-120*		*06/21/2020 17:18*	WG1496569
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/21/2020 17:18*	WG1496569
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/21/2020 17:18*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0477	J	0.0247	0.100	1	06/24/2020 04:52	WG1496549
(S) o-Terphenyl	*87.4*			*31.0-160*		*06/24/2020 04:52*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3790		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	11.5		0.250	0.500	5	06/26/2020 18:36	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:30	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	120		37.9	100	100	06/25/2020 13:04	WG1497340
Fluoride	0.441		0.0640	0.150	1	06/25/2020 19:30	WG1497340
Sulfate	2460		59.4	500	100	06/25/2020 13:04	WG1497340

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:07	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:03	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.594		0.0254	0.200	1	06/25/2020 10:24	WG1495366
Boron,Dissolved	0.613		0.0254	0.200	1	06/25/2020 12:48	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00169	J	0.000735	0.00200	1	06/25/2020 19:31	WG1495381
Arsenic,Dissolved	0.00162	J	0.000735	0.00200	1	06/24/2020 22:18	WG1495349
Barium	0.00835	J	0.00778	0.0200	1	06/25/2020 19:31	WG1495381
Barium,Dissolved	0.00864	J	0.00778	0.0200	1	06/24/2020 22:18	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 19:31	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 22:18	WG1495349
Calcium	537		0.480	1.00	1	06/25/2020 19:31	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 19:31	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 22:18	WG1495349
Cobalt	U		0.000477	0.00200	1	06/25/2020 19:31	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 22:18	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 19:31	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 22:18	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 19:31	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 22:18	WG1495349
Manganese	U		0.00132	0.00500	1	06/25/2020 19:31	WG1495381
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 22:18	WG1495349
Nickel	U		0.000952	0.00200	1	06/25/2020 19:31	WG1495381
Nickel,Dissolved	U		0.000952	0.00200	1	06/24/2020 22:18	WG1495349

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Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.673	J	0.534	2.00	1	06/25/2020 19:31	WG1495381
Selenium	0.00268		0.000657	0.00200	1	06/25/2020 19:31	WG1495381
Selenium,Dissolved	0.00286		0.000657	0.00200	1	06/24/2020 22:18	WG1495349
Sodium	130		0.630	2.00	1	06/25/2020 19:31	WG1495381
Uranium	0.0275		0.00754	0.0200	1	06/25/2020 19:31	WG1495381
Uranium,Dissolved	0.0276		0.00754	0.0200	1	06/24/2020 22:18	WG1495349
Vanadium	0.0129		0.000986	0.00500	1	06/25/2020 19:31	WG1495381
Vanadium,Dissolved	0.0127		0.000986	0.00500	1	06/24/2020 22:18	WG1495349

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 08:24	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*108*			*78.0-120*		*06/22/2020 08:24*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 17:37	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 17:37	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:37	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:37	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:37	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:37	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:37	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:37	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:37	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 17:37	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:37	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:37	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 17:37	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:37	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:37	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:37	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:37	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:37	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:37	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:37	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:37	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 17:37	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:37	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 17:37	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:37	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:37	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:37	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:37	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:37	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:37	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:37	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:37	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:37	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 17:37	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:37	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:37	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:37	WG1496569

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/21/2020 17:37	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:37	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:37	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 17:37	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:37	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:37	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:37	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:37	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:37	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:37	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 17:37*	WG1496569
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 17:37*	WG1496569
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/21/2020 17:37*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0305	J	0.0247	0.100	1	06/24/2020 05:18	WG1496549
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/24/2020 05:18*	WG1496549

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3710		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	14.9		0.250	0.500	5	06/26/2020 18:38	WG1498636

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:31	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	121		37.9	100	100	06/25/2020 13:38	WG1497340
Fluoride	0.791		0.0640	0.150	1	06/25/2020 19:46	WG1497340
Sulfate	2430		59.4	500	100	06/25/2020 13:38	WG1497340

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:09	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:11	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.306		0.0254	0.200	1	06/25/2020 10:27	WG1495366
Boron,Dissolved	0.326		0.0254	0.200	1	06/25/2020 12:57	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00587		0.000735	0.00200	1	06/25/2020 19:46	WG1495381
Arsenic,Dissolved	0.00244		0.000735	0.00200	1	06/24/2020 23:38	WG1495349
Barium	0.0485		0.00778	0.0200	1	06/25/2020 19:46	WG1495381
Barium,Dissolved	0.0141	J	0.00778	0.0200	1	06/24/2020 23:38	WG1495349
Cadmium	U		0.000478	0.00100	1	06/25/2020 19:46	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/24/2020 23:38	WG1495349
Calcium	598		0.480	1.00	1	06/25/2020 19:46	WG1495381
Chromium	0.00721		0.00149	0.00200	1	06/25/2020 19:46	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 23:38	WG1495349
Cobalt	0.00163	J	0.000477	0.00200	1	06/25/2020 19:46	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/24/2020 23:38	WG1495349
Iron	4.41		0.0489	0.100	1	06/25/2020 19:46	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 23:38	WG1495349
Lead	0.00654		0.00249	0.00500	1	06/25/2020 19:46	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 23:38	WG1495349
Manganese	0.113		0.00132	0.00500	1	06/25/2020 19:46	WG1495381
Manganese,Dissolved	U		0.00132	0.00500	1	06/24/2020 23:38	WG1495349
Nickel	0.0110		0.000952	0.00200	1	06/25/2020 19:46	WG1495381
Nickel,Dissolved	U		0.000952	0.00200	1	06/24/2020 22:22	WG1495349

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	2.10		0.534	2.00	1	06/25/2020 19:46	WG1495381
Selenium	0.0103		0.000657	0.00200	1	06/25/2020 19:46	WG1495381
Selenium,Dissolved	0.00955		0.000657	0.00200	1	06/24/2020 23:38	WG1495349
Sodium	169		0.630	2.00	1	06/25/2020 19:46	WG1495381
Uranium	0.0260		0.00754	0.0200	1	06/25/2020 19:46	WG1495381
Uranium,Dissolved	0.0240		0.00754	0.0200	1	06/24/2020 23:38	WG1495349
Vanadium	0.0327		0.000986	0.00500	1	06/25/2020 19:46	WG1495381
Vanadium,Dissolved	0.0191		0.000986	0.00500	1	06/24/2020 23:38	WG1495349

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 17:56	WG1496569
Benzene	0.000205	J	0.0000941	0.00100	1	06/21/2020 17:56	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 17:56	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 17:56	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 17:56	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 17:56	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 17:56	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 17:56	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 17:56	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 17:56	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 17:56	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 17:56	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 17:56	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 17:56	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 17:56	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 17:56	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 17:56	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 17:56	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 17:56	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 17:56	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 17:56	WG1496569
Ethylbenzene	0.000234	J	0.000137	0.00100	1	06/21/2020 17:56	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 17:56	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 17:56	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 17:56	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 17:56	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 17:56	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 17:56	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 17:56	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 17:56	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 17:56	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 17:56	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 17:56	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 17:56	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 17:56	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 17:56	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 17:56	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 17:56	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 17:56	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 17:56	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 17:56	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 17:56	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	U		0.000174	0.00100	1	06/21/2020 17:56	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 17:56	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 17:56	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 17:56*	WG1496569
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 17:56*	WG1496569
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/21/2020 17:56*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0396	J	0.0247	0.100	1	06/24/2020 05:44	WG1496549
(S) o-Terphenyl	*76.3*			*31.0-160*		*06/24/2020 05:44*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7620		56.4	200	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/26/2020 18:39	WG1498636

Sample Narrative:

L1230685-16 WG1498636: Dilution due to sulfide interference

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4480		37.9	100	100	06/25/2020 14:11	WG1497340
Fluoride	4.50		0.0640	0.150	1	06/25/2020 20:03	WG1497340
Sulfate	44.3		0.594	5.00	1	06/25/2020 20:03	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00213		0.000735	0.00200	1	06/25/2020 19:49	WG1495381
Arsenic,Dissolved	0.00189	J	0.000735	0.00200	1	06/24/2020 23:42	WG1495349
Barium	2.61		0.00778	0.0200	1	06/25/2020 19:49	WG1495381
Barium,Dissolved	2.37		0.00778	0.0200	1	06/24/2020 23:42	WG1495349
Calcium	120		0.480	1.00	1	06/25/2020 19:49	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 19:49	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 23:42	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 19:49	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 23:42	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 19:49	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 23:42	WG1495349
Manganese	0.00522		0.00132	0.00500	1	06/25/2020 19:49	WG1495381
Manganese,Dissolved	0.00496	J	0.00132	0.00500	1	06/24/2020 23:42	WG1495349
Potassium	1.21	J	0.534	2.00	1	06/25/2020 19:49	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 19:49	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 23:42	WG1495349
Sodium	2830		3.15	10.0	5	06/25/2020 20:50	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5.15		0.314	1.00	10	06/22/2020 08:45	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*06/22/2020 08:45*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/21/2020 21:07	WG1496569
Benzene	1.14		0.00188	0.0200	20	06/21/2020 21:07	WG1496569
Bromodichloromethane	U		0.00272	0.0200	20	06/21/2020 21:07	WG1496569
Bromoform	U		0.00258	0.0200	20	06/21/2020 21:07	WG1496569
Bromomethane	U		0.0121	0.100	20	06/21/2020 21:07	WG1496569
n-Butylbenzene	U		0.00314	0.0200	20	06/21/2020 21:07	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.00370	J	0.00250	0.0200	20	06/21/2020 21:07	WG1496569
Carbon disulfide	0.00218	J	0.00192	0.0200	20	06/21/2020 21:07	WG1496569
Carbon tetrachloride	U		0.00256	0.0200	20	06/21/2020 21:07	WG1496569
Chlorobenzene	U	J4	0.00232	0.0200	20	06/21/2020 21:07	WG1496569
Chlorodibromomethane	U		0.00280	0.0200	20	06/21/2020 21:07	WG1496569
Chloroethane	U		0.00384	0.100	20	06/21/2020 21:07	WG1496569
Chloroform	U		0.00222	0.100	20	06/21/2020 21:07	WG1496569
Chloromethane	U		0.0192	0.0500	20	06/21/2020 21:07	WG1496569
1,2-Dibromoethane	U		0.00252	0.0200	20	06/21/2020 21:07	WG1496569
1,1-Dichloroethane	U		0.00200	0.0200	20	06/21/2020 21:07	WG1496569
1,2-Dichloroethane	U		0.00164	0.0200	20	06/21/2020 21:07	WG1496569
1,1-Dichloroethene	U		0.00376	0.0200	20	06/21/2020 21:07	WG1496569
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/21/2020 21:07	WG1496569
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/21/2020 21:07	WG1496569
1,2-Dichloropropane	U		0.00298	0.0200	20	06/21/2020 21:07	WG1496569
cis-1,3-Dichloropropene	U	J4	0.00222	0.0200	20	06/21/2020 21:07	WG1496569
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/21/2020 21:07	WG1496569
Ethylbenzene	0.00844	J	0.00274	0.0200	20	06/21/2020 21:07	WG1496569
Isopropylbenzene	0.0295		0.00210	0.0200	20	06/21/2020 21:07	WG1496569
p-Isopropyltoluene	U		0.00240	0.0200	20	06/21/2020 21:07	WG1496569
2-Butanone (MEK)	U		0.0238	0.200	20	06/21/2020 21:07	WG1496569
2-Hexanone	U		0.0157	0.200	20	06/21/2020 21:07	WG1496569
Methylene Chloride	U		0.00860	0.100	20	06/21/2020 21:07	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/21/2020 21:07	WG1496569
Methyl tert-butyl ether	U		0.00202	0.0200	20	06/21/2020 21:07	WG1496569
Naphthalene	U		0.0200	0.100	20	06/21/2020 21:07	WG1496569
n-Propylbenzene	0.0304		0.00199	0.0200	20	06/21/2020 21:07	WG1496569
Styrene	U		0.00236	0.0200	20	06/21/2020 21:07	WG1496569
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/21/2020 21:07	WG1496569
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/21/2020 21:07	WG1496569
Tetrachloroethene	U		0.00600	0.0200	20	06/21/2020 21:07	WG1496569
Toluene	0.0121	J	0.00556	0.0200	20	06/21/2020 21:07	WG1496569
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/21/2020 21:07	WG1496569
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/21/2020 21:07	WG1496569
Trichloroethene	U	J4	0.00380	0.0200	20	06/21/2020 21:07	WG1496569
1,2,4-Trimethylbenzene	U		0.00644	0.0200	20	06/21/2020 21:07	WG1496569
1,3,5-Trimethylbenzene	U		0.00208	0.0200	20	06/21/2020 21:07	WG1496569
Vinyl chloride	U		0.00468	0.0200	20	06/21/2020 21:07	WG1496569
o-Xylene	U		0.00348	0.0200	20	06/21/2020 21:07	WG1496569
m&p-Xylene	U		0.00860	0.0400	20	06/21/2020 21:07	WG1496569
Xylenes, Total	U		0.00348	0.0600	20	06/21/2020 21:07	WG1496569
(S) Toluene-d8	*104*			*80.0-120*		*06/21/2020 21:07*	WG1496569
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*06/21/2020 21:07*	WG1496569
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*06/21/2020 21:07*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.08		0.0247	0.100	1	06/24/2020 06:10	WG1496549
(S) o-Terphenyl	*91.1*			*31.0-160*		*06/24/2020 06:10*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1290		5.64	20.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.250	0.500	5	06/26/2020 18:40	WG1498636

Sample Narrative:

L1230685-17 WG1498636: Dilution due to sulfide interference

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	69.8		0.379	1.00	1	06/25/2020 14:28	WG1497340
Fluoride	1.51		0.0640	0.150	1	06/25/2020 14:28	WG1497340
Sulfate	703		5.94	50.0	10	06/25/2020 15:50	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00181	J	0.000735	0.00200	1	06/25/2020 20:06	WG1495381
Arsenic,Dissolved	0.00145	J	0.000735	0.00200	1	06/24/2020 23:45	WG1495349
Barium	0.0253		0.00778	0.0200	1	06/25/2020 20:06	WG1495381
Barium,Dissolved	0.0231		0.00778	0.0200	1	06/24/2020 23:45	WG1495349
Calcium	224		0.480	1.00	1	06/25/2020 20:06	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:06	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/24/2020 23:45	WG1495349
Iron	U		0.0489	0.100	1	06/25/2020 20:06	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/24/2020 23:45	WG1495349
Lead	U		0.00249	0.00500	1	06/25/2020 20:06	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/24/2020 23:45	WG1495349
Manganese	0.0188		0.00132	0.00500	1	06/25/2020 20:06	WG1495381
Manganese,Dissolved	0.0171		0.00132	0.00500	1	06/24/2020 23:45	WG1495349
Potassium	5.03		0.534	2.00	1	06/25/2020 20:06	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:06	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/24/2020 23:45	WG1495349
Sodium	77.2		0.630	2.00	1	06/25/2020 20:06	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.44		0.0314	0.100	1	06/22/2020 09:05	WG1496563
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*06/22/2020 09:05*	WG1496563

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 18:16	WG1496569
Benzene	0.0720		0.0000941	0.00100	1	06/21/2020 18:16	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 18:16	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 18:16	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 18:16	WG1496569
n-Butylbenzene	0.000349	J	0.000157	0.00100	1	06/21/2020 18:16	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0437		0.000125	0.00100	1	06/21/2020 18:16	WG1496569
Carbon disulfide	0.000648	J	0.0000962	0.00100	1	06/21/2020 18:16	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 18:16	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 18:16	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 18:16	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 18:16	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 18:16	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 18:16	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 18:16	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 18:16	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 18:16	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 18:16	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 18:16	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 18:16	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 18:16	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 18:16	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 18:16	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 18:16	WG1496569
Isopropylbenzene	0.0324		0.000105	0.00100	1	06/21/2020 18:16	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 18:16	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 18:16	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 18:16	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 18:16	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 18:16	WG1496569
Methyl tert-butyl ether	0.000680	J	0.000101	0.00100	1	06/21/2020 18:16	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 18:16	WG1496569
n-Propylbenzene	0.00223		0.0000993	0.00100	1	06/21/2020 18:16	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 18:16	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 18:16	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 18:16	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 18:16	WG1496569
Toluene	0.000324	J	0.000278	0.00100	1	06/21/2020 18:16	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 18:16	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 18:16	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 18:16	WG1496569
1,2,4-Trimethylbenzene	0.000486	J	0.000322	0.00100	1	06/21/2020 18:16	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 18:16	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 18:16	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 18:16	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 18:16	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 18:16	WG1496569
(S) Toluene-d8	*92.4*			*80.0-120*		*06/21/2020 18:16*	WG1496569
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/21/2020 18:16*	WG1496569
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/21/2020 18:16*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.14		0.0247	0.100	1	06/24/2020 06:36	WG1496549
(S) o-Terphenyl	*110*			*31.0-160*		*06/24/2020 06:36*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1620		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.100	0.200	2	06/26/2020 18:41	WG1498636

Sample Narrative:

L1230685-18 WG1498636: Dilution due to sulfide interference

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	324		3.79	10.0	10	06/25/2020 16:57	WG1497340
Fluoride	0.993		0.0640	0.150	1	06/25/2020 16:24	WG1497340
Sulfate	5.03		0.594	5.00	1	06/25/2020 16:24	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0246		0.000735	0.00200	1	06/25/2020 20:09	WG1495381
Arsenic,Dissolved	0.0247		0.000735	0.00200	1	06/25/2020 13:58	WG1495350
Barium	2.29		0.00778	0.0200	1	06/25/2020 20:09	WG1495381
Barium,Dissolved	2.27	O1 V	0.00778	0.0200	1	06/25/2020 13:58	WG1495350
Calcium	90.7		0.480	1.00	1	06/25/2020 20:09	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:09	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 13:58	WG1495350
Iron	0.349		0.0489	0.100	1	06/25/2020 20:09	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 13:58	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:09	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 13:58	WG1495350
Manganese	0.0920		0.00132	0.00500	1	06/25/2020 20:09	WG1495381
Manganese,Dissolved	0.0932		0.00132	0.00500	1	06/25/2020 13:58	WG1495350
Potassium	0.655	J	0.534	2.00	1	06/25/2020 20:09	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:09	WG1495381
Selenium,Dissolved	U	J5	0.000657	0.00200	1	06/25/2020 13:58	WG1495350
Sodium	350		0.630	2.00	1	06/25/2020 20:09	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	102		3.14	10.0	100	06/24/2020 18:41	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*78.0-120*		*06/24/2020 18:41*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		5.65	25.0	500	06/21/2020 22:04	WG1496569
Benzene	27.5		0.0471	0.500	500	06/21/2020 22:04	WG1496569
Bromodichloromethane	U		0.0680	0.500	500	06/21/2020 22:04	WG1496569
Bromoform	U		0.0645	0.500	500	06/21/2020 22:04	WG1496569
Bromomethane	U		0.303	2.50	500	06/21/2020 22:04	WG1496569
n-Butylbenzene	U		0.0785	0.500	500	06/21/2020 22:04	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.0625	0.500	500	06/21/2020 22:04	WG1496569
Carbon disulfide	U		0.0481	0.500	500	06/21/2020 22:04	WG1496569
Carbon tetrachloride	U		0.0640	0.500	500	06/21/2020 22:04	WG1496569
Chlorobenzene	U	J4	0.0580	0.500	500	06/21/2020 22:04	WG1496569
Chlorodibromomethane	U		0.0700	0.500	500	06/21/2020 22:04	WG1496569
Chloroethane	U		0.0960	2.50	500	06/21/2020 22:04	WG1496569
Chloroform	U		0.0555	2.50	500	06/21/2020 22:04	WG1496569
Chloromethane	U		0.480	1.25	500	06/21/2020 22:04	WG1496569
1,2-Dibromoethane	U		0.0630	0.500	500	06/21/2020 22:04	WG1496569
1,1-Dichloroethane	U		0.0500	0.500	500	06/21/2020 22:04	WG1496569
1,2-Dichloroethane	U		0.0409	0.500	500	06/21/2020 22:04	WG1496569
1,1-Dichloroethene	U		0.0940	0.500	500	06/21/2020 22:04	WG1496569
cis-1,2-Dichloroethene	U		0.0630	0.500	500	06/21/2020 22:04	WG1496569
trans-1,2-Dichloroethene	U		0.0745	0.500	500	06/21/2020 22:04	WG1496569
1,2-Dichloropropane	U		0.0745	0.500	500	06/21/2020 22:04	WG1496569
cis-1,3-Dichloropropene	U	J4	0.0555	0.500	500	06/21/2020 22:04	WG1496569
trans-1,3-Dichloropropene	U		0.0590	0.500	500	06/21/2020 22:04	WG1496569
Ethylbenzene	1.76		0.0685	0.500	500	06/21/2020 22:04	WG1496569
Isopropylbenzene	0.0605	J	0.0525	0.500	500	06/21/2020 22:04	WG1496569
p-Isopropyltoluene	U		0.0600	0.500	500	06/21/2020 22:04	WG1496569
2-Butanone (MEK)	U		0.595	5.00	500	06/21/2020 22:04	WG1496569
2-Hexanone	U		0.394	5.00	500	06/21/2020 22:04	WG1496569
Methylene Chloride	U		0.215	2.50	500	06/21/2020 22:04	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.239	5.00	500	06/21/2020 22:04	WG1496569
Methyl tert-butyl ether	0.461	J	0.0505	0.500	500	06/21/2020 22:04	WG1496569
Naphthalene	U		0.500	2.50	500	06/21/2020 22:04	WG1496569
n-Propylbenzene	0.0725	J	0.0497	0.500	500	06/21/2020 22:04	WG1496569
Styrene	U		0.0590	0.500	500	06/21/2020 22:04	WG1496569
1,1,1,2-Tetrachloroethane	U		0.0735	0.500	500	06/21/2020 22:04	WG1496569
1,1,2,2-Tetrachloroethane	U		0.0665	0.500	500	06/21/2020 22:04	WG1496569
Tetrachloroethene	U		0.150	0.500	500	06/21/2020 22:04	WG1496569
Toluene	9.93		0.139	0.500	500	06/21/2020 22:04	WG1496569
1,1,1-Trichloroethane	U		0.0745	0.500	500	06/21/2020 22:04	WG1496569
1,1,2-Trichloroethane	U		0.0790	0.500	500	06/21/2020 22:04	WG1496569
Trichloroethene	U	J4	0.0950	0.500	500	06/21/2020 22:04	WG1496569
1,2,4-Trimethylbenzene	0.453	J	0.161	0.500	500	06/21/2020 22:04	WG1496569
1,3,5-Trimethylbenzene	0.0760	J	0.0520	0.500	500	06/21/2020 22:04	WG1496569
Vinyl chloride	U		0.117	0.500	500	06/21/2020 22:04	WG1496569
o-Xylene	1.03		0.0870	0.500	500	06/21/2020 22:04	WG1496569
m&p-Xylene	3.26		0.215	1.00	500	06/21/2020 22:04	WG1496569
Xylenes, Total	4.29		0.0870	1.50	500	06/21/2020 22:04	WG1496569
(S) Toluene-d8	*101*			*80.0-120*		*06/21/2020 22:04*	WG1496569
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/21/2020 22:04*	WG1496569
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*06/21/2020 22:04*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.18		0.0247	0.100	1	06/24/2020 07:02	WG1496549
(S) o-Terphenyl	*109*			*31.0-160*		*06/24/2020 07:02*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1610		7.05	25.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 18:43	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	285		3.79	10.0	10	06/25/2020 17:31	WG1497340
Fluoride	0.984		0.0640	0.150	1	06/25/2020 17:14	WG1497340
Sulfate	21.2		0.594	5.00	1	06/25/2020 17:14	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0129		0.000735	0.00200	1	06/25/2020 20:13	WG1495381
Arsenic,Dissolved	0.0122		0.000735	0.00200	1	06/25/2020 14:13	WG1495350
Barium	8.69		0.00778	0.0200	1	06/25/2020 20:13	WG1495381
Barium,Dissolved	8.83		0.00778	0.0200	1	06/25/2020 14:13	WG1495350
Calcium	84.2		0.480	1.00	1	06/25/2020 20:13	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:13	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:13	WG1495350
Iron	0.187		0.0489	0.100	1	06/25/2020 20:13	WG1495381
Iron,Dissolved	0.0939	J	0.0489	0.100	1	06/25/2020 14:13	WG1495350
Lead	0.00498	J	0.00249	0.00500	1	06/25/2020 20:13	WG1495381
Lead,Dissolved	0.00325	J	0.00249	0.00500	1	06/25/2020 14:13	WG1495350
Manganese	0.0370		0.00132	0.00500	1	06/25/2020 20:13	WG1495381
Manganese,Dissolved	0.0371		0.00132	0.00500	1	06/25/2020 14:13	WG1495350
Potassium	U		0.534	2.00	1	06/25/2020 20:13	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:13	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 14:13	WG1495350
Sodium	446		0.630	2.00	1	06/25/2020 20:13	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	27.1		3.14	10.0	100	06/24/2020 19:03	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*95.5*			*78.0-120*		*06/24/2020 19:03*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		1.13	5.00	100	06/25/2020 20:56	WG1499237
Benzene	7.10		0.00941	0.100	100	06/25/2020 20:56	WG1499237
Bromodichloromethane	U		0.0136	0.100	100	06/25/2020 20:56	WG1499237
Bromoform	U		0.0129	0.100	100	06/25/2020 20:56	WG1499237
Bromomethane	U		0.0605	0.500	100	06/25/2020 20:56	WG1499237
n-Butylbenzene	U		0.0157	0.100	100	06/25/2020 20:56	WG1499237
sec-Butylbenzene	U		0.0125	0.100	100	06/25/2020 20:56	WG1499237
Carbon disulfide	U		0.00962	0.100	100	06/25/2020 20:56	WG1499237
Carbon tetrachloride	U		0.0128	0.100	100	06/25/2020 20:56	WG1499237

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.0116	0.100	100	06/25/2020 20:56	WG1499237
Chlorodibromomethane	U		0.0140	0.100	100	06/25/2020 20:56	WG1499237
Chloroethane	U		0.0192	0.500	100	06/25/2020 20:56	WG1499237
Chloroform	U		0.0111	0.500	100	06/25/2020 20:56	WG1499237
Chloromethane	U		0.0960	0.250	100	06/25/2020 20:56	WG1499237
1,2-Dibromoethane	U		0.0126	0.100	100	06/25/2020 20:56	WG1499237
1,1-Dichloroethane	U		0.0100	0.100	100	06/25/2020 20:56	WG1499237
1,2-Dichloroethane	U		0.00819	0.100	100	06/25/2020 20:56	WG1499237
1,1-Dichloroethene	U		0.0188	0.100	100	06/25/2020 20:56	WG1499237
cis-1,2-Dichloroethene	U		0.0126	0.100	100	06/25/2020 20:56	WG1499237
trans-1,2-Dichloroethene	U		0.0149	0.100	100	06/25/2020 20:56	WG1499237
1,2-Dichloropropane	U		0.0149	0.100	100	06/25/2020 20:56	WG1499237
cis-1,3-Dichloropropene	U		0.0111	0.100	100	06/25/2020 20:56	WG1499237
trans-1,3-Dichloropropene	U		0.0118	0.100	100	06/25/2020 20:56	WG1499237
Ethylbenzene	0.477		0.0137	0.100	100	06/25/2020 20:56	WG1499237
Isopropylbenzene	0.0273	J	0.0105	0.100	100	06/25/2020 20:56	WG1499237
p-Isopropyltoluene	U		0.0120	0.100	100	06/25/2020 20:56	WG1499237
2-Butanone (MEK)	U		0.119	1.00	100	06/25/2020 20:56	WG1499237
2-Hexanone	U		0.0787	1.00	100	06/25/2020 20:56	WG1499237
Methylene Chloride	U		0.0430	0.500	100	06/25/2020 20:56	WG1499237
4-Methyl-2-pentanone (MIBK)	U		0.0478	1.00	100	06/25/2020 20:56	WG1499237
Methyl tert-butyl ether	0.719		0.0101	0.100	100	06/25/2020 20:56	WG1499237
Naphthalene	0.142	J	0.100	0.500	100	06/25/2020 20:56	WG1499237
n-Propylbenzene	0.0356	J	0.00993	0.100	100	06/25/2020 20:56	WG1499237
Styrene	U		0.0118	0.100	100	06/25/2020 20:56	WG1499237
1,1,1,2-Tetrachloroethane	U		0.0147	0.100	100	06/25/2020 20:56	WG1499237
1,1,2,2-Tetrachloroethane	U		0.0133	0.100	100	06/25/2020 20:56	WG1499237
Tetrachloroethene	U		0.0300	0.100	100	06/25/2020 20:56	WG1499237
Toluene	0.0484	J	0.0278	0.100	100	06/25/2020 20:56	WG1499237
1,1,1-Trichloroethane	U		0.0149	0.100	100	06/25/2020 20:56	WG1499237
1,1,2-Trichloroethane	U		0.0158	0.100	100	06/25/2020 20:56	WG1499237
Trichloroethene	U		0.0190	0.100	100	06/25/2020 20:56	WG1499237
1,2,4-Trimethylbenzene	0.0927	J	0.0322	0.100	100	06/25/2020 20:56	WG1499237
1,3,5-Trimethylbenzene	U		0.0104	0.100	100	06/25/2020 20:56	WG1499237
Vinyl chloride	U		0.0234	0.100	100	06/25/2020 20:56	WG1499237
o-Xylene	U		0.0174	0.100	100	06/25/2020 20:56	WG1499237
m&p-Xylene	0.188	J	0.0430	0.200	100	06/25/2020 20:56	WG1499237
Xylenes, Total	0.188	J	0.0174	0.300	100	06/25/2020 20:56	WG1499237
(S) Toluene-d8	*108*			*80.0-120*		*06/25/2020 20:56*	WG1499237
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*06/25/2020 20:56*	WG1499237
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*06/25/2020 20:56*	WG1499237

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.50		0.0247	0.100	1	06/24/2020 07:28	WG1496549
(S) o-Terphenyl	*114*			*31.0-160*		*06/24/2020 07:28*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4500		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.212	J5	0.0500	0.100	1	06/26/2020 18:44	WG1498636

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	330		37.9	100	100	06/25/2020 18:05	WG1497340
Fluoride	1.19		0.0640	0.150	1	06/25/2020 17:48	WG1497340
Sulfate	2950		59.4	500	100	06/25/2020 18:05	WG1497340

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00388		0.000735	0.00200	1	06/25/2020 20:17	WG1495381
Arsenic,Dissolved	0.00341		0.000735	0.00200	1	06/25/2020 14:17	WG1495350
Barium	0.00983	J	0.00778	0.0200	1	06/25/2020 20:17	WG1495381
Barium,Dissolved	0.00972	J	0.00778	0.0200	1	06/25/2020 14:17	WG1495350
Calcium	543		0.480	1.00	1	06/25/2020 20:17	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:17	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:17	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:17	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:17	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:17	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:17	WG1495350
Manganese	0.431		0.00132	0.00500	1	06/25/2020 20:17	WG1495381
Manganese,Dissolved	0.427		0.00132	0.00500	1	06/25/2020 14:17	WG1495350
Potassium	1.41	J	0.534	2.00	1	06/25/2020 20:17	WG1495381
Selenium	0.00289		0.000657	0.00200	1	06/25/2020 20:17	WG1495381
Selenium,Dissolved	0.00322		0.000657	0.00200	1	06/25/2020 14:17	WG1495350
Sodium	221		0.630	2.00	1	06/25/2020 20:17	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/24/2020 17:35	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*78.0-120*		*06/24/2020 17:35*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 18:35	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 18:35	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 18:35	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 18:35	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 18:35	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 18:35	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/25/2020 20:15	WG1499237
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 18:35	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 18:35	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 18:35	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 18:35	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 18:35	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 18:35	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 18:35	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 18:35	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 18:35	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 18:35	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 18:35	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 18:35	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 18:35	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 18:35	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 18:35	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 18:35	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 18:35	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/25/2020 20:15	WG1499237
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 18:35	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 18:35	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 18:35	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 18:35	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 18:35	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 18:35	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 18:35	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 18:35	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 18:35	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 18:35	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 18:35	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 18:35	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 18:35	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 18:35	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 18:35	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 18:35	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 18:35	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 18:35	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 18:35	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 18:35	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 18:35	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 18:35	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 18:35*	WG1496569
(S) Toluene-d8	*106*			*80.0-120*		*06/25/2020 20:15*	WG1499237
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/21/2020 18:35*	WG1496569
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*06/25/2020 20:15*	WG1499237
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/21/2020 18:35*	WG1496569
(S) 1,2-Dichloroethane-d4	*95.6*			*70.0-130*		*06/25/2020 20:15*	WG1499237

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0700	J	0.0247	0.100	1	06/25/2020 10:06	WG1496549
(S) o-Terphenyl	*76.8*			*31.0-160*		*06/25/2020 10:06*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2430		7.05	25.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.93		0.0500	0.100	1	06/25/2020 19:01	WG1498637

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:32	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	39.6		0.379	1.00	1	06/25/2020 00:37	WG1497343
Fluoride	0.582		0.0640	0.150	1	06/25/2020 00:37	WG1497343
Sulfate	1560		29.7	250	50	06/25/2020 00:55	WG1497343

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:11	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:13	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.173	J	0.0254	0.200	1	06/25/2020 10:30	WG1495366
Boron,Dissolved	0.184	J	0.0254	0.200	1	06/25/2020 11:51	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00126	J	0.000735	0.00200	1	06/25/2020 20:20	WG1495381
Arsenic,Dissolved	0.00132	J	0.000735	0.00200	1	06/25/2020 14:20	WG1495350
Barium	0.0205		0.00778	0.0200	1	06/25/2020 20:20	WG1495381
Barium,Dissolved	0.0200		0.00778	0.0200	1	06/25/2020 14:20	WG1495350
Cadmium	U		0.000478	0.00100	1	06/25/2020 20:20	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 14:20	WG1495350
Calcium	440		0.480	1.00	1	06/25/2020 20:20	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:20	WG1495381
Chromium,Dissolved	0.00240		0.00149	0.00200	1	06/25/2020 14:20	WG1495350
Cobalt	U		0.000477	0.00200	1	06/25/2020 20:20	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 14:20	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:20	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:20	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:20	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:20	WG1495350
Manganese	U		0.00132	0.00500	1	06/25/2020 20:20	WG1495381
Manganese,Dissolved	0.00488	J	0.00132	0.00500	1	06/25/2020 14:20	WG1495350
Nickel	U		0.000952	0.00200	1	06/25/2020 20:20	WG1495381
Nickel,Dissolved	0.00177	J	0.000952	0.00200	1	06/25/2020 14:20	WG1495350

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	1.93	J	0.534	2.00	1	06/25/2020 20:20	WG1495381
Selenium	0.00389		0.000657	0.00200	1	06/25/2020 20:20	WG1495381
Selenium,Dissolved	0.00421		0.000657	0.00200	1	06/25/2020 14:20	WG1495350
Sodium	30.1		0.630	2.00	1	06/25/2020 20:20	WG1495381
Uranium	0.0167	J	0.00754	0.0200	1	06/25/2020 20:20	WG1495381
Uranium,Dissolved	0.0166	J	0.00754	0.0200	1	06/25/2020 14:20	WG1495350
Vanadium	0.00867		0.000986	0.00500	1	06/25/2020 20:20	WG1495381
Vanadium,Dissolved	0.00878		0.000986	0.00500	1	06/25/2020 14:20	WG1495350

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0421	J	0.0314	0.100	1	06/22/2020 19:34	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/22/2020 19:34*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 18:53	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 18:53	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 18:53	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 18:53	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 18:53	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 18:53	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 18:53	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 18:53	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 18:53	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 18:53	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 18:53	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 18:53	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 18:53	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 18:53	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 18:53	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 18:53	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 18:53	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 18:53	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 18:53	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 18:53	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 18:53	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 18:53	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 18:53	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 18:53	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 18:53	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 18:53	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 18:53	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 18:53	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 18:53	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 18:53	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 18:53	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 18:53	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 18:53	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 18:53	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 18:53	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 18:53	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 18:53	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/21/2020 18:53	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 18:53	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 18:53	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 18:53	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 18:53	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 18:53	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 18:53	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 18:53	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 18:53	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 18:53	WG1496569
(S) Toluene-d8	*106*			*80.0-120*		*06/21/2020 18:53*	WG1496569
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 18:53*	WG1496569
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/21/2020 18:53*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0478	J	0.0247	0.100	1	06/24/2020 08:20	WG1496549
(S) o-Terphenyl	*84.7*			*31.0-160*		*06/24/2020 08:20*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4210	B	14.1	50.0	1	06/22/2020 23:54	WG1496357

Sample Narrative:
L1230685-23 WG1496357: Redo confirmed initial result.

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.326		0.0500	0.100	1	06/25/2020 19:03	WG1498637

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:33	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	108		1.90	5.00	5	06/25/2020 01:31	WG1497343
Fluoride	0.605		0.0640	0.150	1	06/25/2020 01:13	WG1497343
Sulfate	2810		59.4	500	100	06/25/2020 01:48	WG1497343

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:13	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:15	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	1.02		0.0254	0.200	1	06/25/2020 10:34	WG1495366
Boron,Dissolved	1.07		0.0254	0.200	1	06/25/2020 13:00	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00105	J	0.000735	0.00200	1	06/25/2020 20:24	WG1495381
Arsenic,Dissolved	0.00112	J	0.000735	0.00200	1	06/25/2020 14:24	WG1495350
Barium	0.0164	J	0.00778	0.0200	1	06/25/2020 20:24	WG1495381
Barium,Dissolved	0.0156	J	0.00778	0.0200	1	06/25/2020 14:24	WG1495350
Cadmium	U		0.000478	0.00100	1	06/25/2020 20:24	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 14:24	WG1495350
Calcium	622		0.480	1.00	1	06/25/2020 20:24	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:24	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:24	WG1495350
Cobalt	U		0.000477	0.00200	1	06/25/2020 20:24	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 14:24	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:24	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:24	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:24	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:24	WG1495350
Manganese	0.00403	J	0.00132	0.00500	1	06/25/2020 20:24	WG1495381

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.00149	J	0.00132	0.00500	1	06/25/2020 14:24	WG1495350
Nickel	0.00177	J	0.000952	0.00200	1	06/25/2020 20:24	WG1495381
Nickel,Dissolved	0.00108	J	0.000952	0.00200	1	06/25/2020 14:24	WG1495350
Potassium	1.78	J	0.534	2.00	1	06/25/2020 20:24	WG1495381
Selenium	0.00925		0.000657	0.00200	1	06/25/2020 20:24	WG1495381
Selenium,Dissolved	0.0104		0.000657	0.00200	1	06/25/2020 14:24	WG1495350
Sodium	168		0.630	2.00	1	06/25/2020 20:24	WG1495381
Uranium	0.0357		0.00754	0.0200	1	06/25/2020 20:24	WG1495381
Uranium,Dissolved	0.0359		0.00754	0.0200	1	06/25/2020 14:24	WG1495350
Vanadium	0.00757		0.000986	0.00500	1	06/25/2020 20:24	WG1495381
Vanadium,Dissolved	0.00739		0.000986	0.00500	1	06/25/2020 14:24	WG1495350

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/24/2020 17:57	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*06/24/2020 17:57*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 19:12	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 19:12	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 19:12	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 19:12	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 19:12	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 19:12	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 19:12	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 19:12	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 19:12	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 19:12	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 19:12	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 19:12	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 19:12	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 19:12	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 19:12	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 19:12	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 19:12	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 19:12	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 19:12	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 19:12	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 19:12	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 19:12	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 19:12	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 19:12	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 19:12	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 19:12	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 19:12	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 19:12	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 19:12	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 19:12	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 19:12	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 19:12	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 19:12	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 19:12	WG1496569

Received by OCD: 6/23/2021 4:05:29 PM

UG-4
Collected date/time: 06/15/20 17:20
L1230685

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 19:12	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 19:12	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 19:12	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 19:12	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 19:12	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 19:12	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 19:12	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 19:12	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 19:12	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 19:12	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 19:12	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 19:12	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 19:12	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 19:12*	WG1496569
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/21/2020 19:12*	WG1496569
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/21/2020 19:12*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/22/2020 07:35	WG1495269
(S) o-Terphenyl	*92.1*			*31.0-160*		*06/22/2020 07:35*	WG1495269

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3550	B	14.1	50.0	1	06/22/2020 23:54	WG1496357

Sample Narrative:

L1230685-24 WG1496357: Redo confirms initial result.

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	10.6		0.250	0.500	5	06/25/2020 19:05	WG1498637

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:34	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	97.3		19.0	50.0	50	06/25/2020 02:24	WG1497343
Fluoride	0.784		0.0640	0.150	1	06/25/2020 02:06	WG1497343
Sulfate	2060		29.7	250	50	06/25/2020 02:24	WG1497343

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:15	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:17	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.691		0.0254	0.200	1	06/25/2020 10:37	WG1495366
Boron,Dissolved	0.718		0.0254	0.200	1	06/25/2020 13:03	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00139	J	0.000735	0.00200	1	06/25/2020 20:28	WG1495381
Arsenic,Dissolved	0.00113	J	0.000735	0.00200	1	06/25/2020 14:43	WG1495350
Barium	0.0137	J	0.00778	0.0200	1	06/25/2020 20:28	WG1495381
Barium,Dissolved	0.0141	J	0.00778	0.0200	1	06/25/2020 14:43	WG1495350
Cadmium	U		0.000478	0.00100	1	06/25/2020 20:28	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 14:43	WG1495350
Calcium	503		0.480	1.00	1	06/25/2020 20:28	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:28	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:43	WG1495350
Cobalt	U		0.000477	0.00200	1	06/25/2020 20:28	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 14:43	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:28	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:43	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:28	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:43	WG1495350
Manganese	U		0.00132	0.00500	1	06/25/2020 20:28	WG1495381

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.00154	J	0.00132	0.00500	1	06/25/2020 14:43	WG1495350
Nickel	0.000984	J	0.000952	0.00200	1	06/25/2020 20:28	WG1495381
Nickel,Dissolved	0.00119	J	0.000952	0.00200	1	06/25/2020 14:43	WG1495350
Potassium	1.16	J	0.534	2.00	1	06/25/2020 20:28	WG1495381
Selenium	0.0131		0.000657	0.00200	1	06/25/2020 20:28	WG1495381
Selenium,Dissolved	0.0153		0.000657	0.00200	1	06/25/2020 14:43	WG1495350
Sodium	84.0		0.630	2.00	1	06/25/2020 20:28	WG1495381
Uranium	0.0385		0.00754	0.0200	1	06/25/2020 20:28	WG1495381
Uranium,Dissolved	0.0390		0.00754	0.0200	1	06/25/2020 14:43	WG1495350
Vanadium	0.0133		0.000986	0.00500	1	06/25/2020 20:28	WG1495381
Vanadium,Dissolved	0.0139		0.000986	0.00500	1	06/25/2020 14:43	WG1495350

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/24/2020 18:19	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*78.0-120*		*06/24/2020 18:19*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 19:31	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 19:31	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 19:31	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 19:31	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 19:31	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 19:31	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 19:31	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 19:31	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 19:31	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 19:31	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 19:31	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 19:31	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 19:31	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 19:31	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 19:31	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 19:31	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 19:31	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 19:31	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 19:31	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 19:31	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 19:31	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 19:31	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 19:31	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 19:31	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 19:31	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 19:31	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 19:31	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 19:31	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 19:31	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 19:31	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 19:31	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 19:31	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 19:31	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 19:31	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 19:31	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 19:31	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 19:31	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 19:31	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 19:31	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 19:31	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 19:31	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 19:31	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 19:31	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 19:31	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 19:31	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 19:31	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 19:31	WG1496569
(S) Toluene-d8	*101*			*80.0-120*		*06/21/2020 19:31*	WG1496569
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 19:31*	WG1496569
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/21/2020 19:31*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/22/2020 07:58	WG1495269
(S) o-Terphenyl	*85.3*			*31.0-160*		*06/22/2020 07:58*	WG1495269

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2150	B	7.05	25.0	1	06/22/2020 23:54	WG1496357

Sample Narrative:
L1230685-25 WG1496357: Redo confirms initial result.

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	9.75		0.250	0.500	5	06/25/2020 19:06	WG1498637

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:38	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	75.9		0.379	1.00	1	06/25/2020 02:42	WG1497343
Fluoride	1.52		0.0640	0.150	1	06/25/2020 02:42	WG1497343
Sulfate	1190		11.9	100	20	06/25/2020 04:29	WG1497343

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:17	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:19	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.274		0.0254	0.200	1	06/25/2020 10:40	WG1495366
Boron,Dissolved	0.296		0.0254	0.200	1	06/25/2020 13:06	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00253		0.000735	0.00200	1	06/25/2020 20:31	WG1495381
Arsenic,Dissolved	0.00241		0.000735	0.00200	1	06/25/2020 14:47	WG1495350
Barium	0.0141	J	0.00778	0.0200	1	06/25/2020 20:31	WG1495381
Barium,Dissolved	0.0140	J	0.00778	0.0200	1	06/25/2020 14:47	WG1495350
Cadmium	U		0.000478	0.00100	1	06/25/2020 20:31	WG1495381
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 14:47	WG1495350
Calcium	342		0.480	1.00	1	06/25/2020 20:31	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:31	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:47	WG1495350
Cobalt	U		0.000477	0.00200	1	06/25/2020 20:31	WG1495381
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 14:47	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:31	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:47	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:31	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:47	WG1495350
Manganese	0.00395	J	0.00132	0.00500	1	06/25/2020 20:31	WG1495381

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.00441	J	0.00132	0.00500	1	06/25/2020 14:47	WG1495350
Nickel	0.00250		0.000952	0.00200	1	06/25/2020 20:31	WG1495381
Nickel,Dissolved	0.00278		0.000952	0.00200	1	06/25/2020 14:47	WG1495350
Potassium	1.41	J	0.534	2.00	1	06/25/2020 20:31	WG1495381
Selenium	0.00616		0.000657	0.00200	1	06/25/2020 20:31	WG1495381
Selenium,Dissolved	0.00842		0.000657	0.00200	1	06/25/2020 14:47	WG1495350
Sodium	85.7		0.630	2.00	1	06/25/2020 20:31	WG1495381
Uranium	0.0161	J	0.00754	0.0200	1	06/25/2020 20:31	WG1495381
Uranium,Dissolved	0.0166	J	0.00754	0.0200	1	06/25/2020 14:47	WG1495350
Vanadium	0.0185		0.000986	0.00500	1	06/25/2020 20:31	WG1495381
Vanadium,Dissolved	0.0188		0.000986	0.00500	1	06/25/2020 14:47	WG1495350

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/22/2020 20:43	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/22/2020 20:43*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 19:50	WG1496569
Benzene	U		0.0000941	0.00100	1	06/21/2020 19:50	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 19:50	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 19:50	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 19:50	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 19:50	WG1496569
sec-Butylbenzene	U		0.000125	0.00100	1	06/21/2020 19:50	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 19:50	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 19:50	WG1496569
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 19:50	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 19:50	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 19:50	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 19:50	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 19:50	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 19:50	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 19:50	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 19:50	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 19:50	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 19:50	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 19:50	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 19:50	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 19:50	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 19:50	WG1496569
Ethylbenzene	U		0.000137	0.00100	1	06/21/2020 19:50	WG1496569
Isopropylbenzene	U		0.000105	0.00100	1	06/21/2020 19:50	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 19:50	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 19:50	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 19:50	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 19:50	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 19:50	WG1496569
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/21/2020 19:50	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 19:50	WG1496569
n-Propylbenzene	U		0.0000993	0.00100	1	06/21/2020 19:50	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 19:50	WG1496569

UG-2
Collected date/time: 06/15/20 19:10
L1230685

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 19:50	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 19:50	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 19:50	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 19:50	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 19:50	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 19:50	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 19:50	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 19:50	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 19:50	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 19:50	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 19:50	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 19:50	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 19:50	WG1496569
(S) Toluene-d8	*103*			*80.0-120*		*06/21/2020 19:50*	WG1496569
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/21/2020 19:50*	WG1496569
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/21/2020 19:50*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/22/2020 08:20	WG1495269
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/22/2020 08:20*	WG1495269

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1330		5.64	20.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:07	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	202		3.79	10.0	10	06/25/2020 18:29	WG1497343
Fluoride	0.965		0.0640	0.150	1	06/25/2020 04:47	WG1497343
Sulfate	183		5.94	50.0	10	06/25/2020 18:29	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0735		0.000735	0.00200	1	06/25/2020 20:35	WG1495381
Arsenic,Dissolved	0.0487		0.000735	0.00200	1	06/25/2020 14:50	WG1495350
Barium	0.0551		0.00778	0.0200	1	06/25/2020 20:35	WG1495381
Barium,Dissolved	0.0614		0.00778	0.0200	1	06/25/2020 14:50	WG1495350
Calcium	183		0.480	1.00	1	06/25/2020 20:35	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:35	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:50	WG1495350
Iron	3.42		0.0489	0.100	1	06/25/2020 20:35	WG1495381
Iron,Dissolved	0.623		0.0489	0.100	1	06/25/2020 14:50	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:35	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:50	WG1495350
Manganese	1.15		0.00132	0.00500	1	06/25/2020 20:35	WG1495381
Manganese,Dissolved	1.18		0.00132	0.00500	1	06/25/2020 14:50	WG1495350
Potassium	0.556	J	0.534	2.00	1	06/25/2020 20:35	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:35	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 14:50	WG1495350
Sodium	144		0.630	2.00	1	06/25/2020 20:35	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.553		0.0314	0.100	1	06/22/2020 21:06	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*108*			*78.0-120*		*06/22/2020 21:06*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:09	WG1496569
Benzene	0.00438		0.0000941	0.00100	1	06/21/2020 20:09	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:09	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:09	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:09	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:09	WG1496569
sec-Butylbenzene	0.00174		0.000125	0.00100	1	06/21/2020 20:09	WG1496569
Carbon disulfide	U		0.0000962	0.00100	1	06/21/2020 20:09	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:09	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 20:09	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:09	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:09	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:09	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:09	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:09	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:09	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:09	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:09	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:09	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:09	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:09	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 20:09	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:09	WG1496569
Ethylbenzene	0.000302	J	0.000137	0.00100	1	06/21/2020 20:09	WG1496569
Isopropylbenzene	0.00538		0.000105	0.00100	1	06/21/2020 20:09	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 20:09	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:09	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 20:09	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:09	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:09	WG1496569
Methyl tert-butyl ether	0.0502		0.000101	0.00100	1	06/21/2020 20:09	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 20:09	WG1496569
n-Propylbenzene	0.000369	J	0.0000993	0.00100	1	06/21/2020 20:09	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 20:09	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:09	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:09	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:09	WG1496569
Toluene	U		0.000278	0.00100	1	06/21/2020 20:09	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:09	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:09	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 20:09	WG1496569
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/21/2020 20:09	WG1496569
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/21/2020 20:09	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:09	WG1496569
o-Xylene	U		0.000174	0.00100	1	06/21/2020 20:09	WG1496569
m&p-Xylene	U		0.000430	0.00200	1	06/21/2020 20:09	WG1496569
Xylenes, Total	U		0.000174	0.00300	1	06/21/2020 20:09	WG1496569
(S) Toluene-d8	*98.2*			*80.0-120*		*06/21/2020 20:09*	WG1496569
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/21/2020 20:09*	WG1496569
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/21/2020 20:09*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.85		0.0247	0.100	1	06/24/2020 08:46	WG1496549
(S) o-Terphenyl	*110*			*31.0-160*		*06/24/2020 08:46*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2410		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:15	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	97.7		0.379	1.00	1	06/25/2020 05:23	WG1497343
Fluoride	3.45		0.0640	0.150	1	06/25/2020 05:23	WG1497343
Sulfate	821		11.9	100	20	06/25/2020 05:59	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00757		0.000735	0.00200	1	06/25/2020 20:54	WG1495381
Arsenic,Dissolved	0.00754		0.000735	0.00200	1	06/25/2020 14:54	WG1495350
Barium	0.0145	J	0.00778	0.0200	1	06/25/2020 20:54	WG1495381
Barium,Dissolved	0.0141	J	0.00778	0.0200	1	06/25/2020 14:54	WG1495350
Calcium	61.8		0.480	1.00	1	06/25/2020 20:54	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 20:54	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:54	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 20:54	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:54	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 20:54	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 14:54	WG1495350
Manganese	0.0410		0.00132	0.00500	1	06/25/2020 20:54	WG1495381
Manganese,Dissolved	0.0417		0.00132	0.00500	1	06/25/2020 14:54	WG1495350
Potassium	U		0.534	2.00	1	06/25/2020 20:54	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:54	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 14:54	WG1495350
Sodium	721		0.630	2.00	1	06/25/2020 20:54	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.740		0.0314	0.100	1	06/22/2020 21:29	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*116*			*78.0-120*		*06/22/2020 21:29*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:29	WG1496569
Benzene	0.0289		0.0000941	0.00100	1	06/21/2020 20:29	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:29	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:29	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:29	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:29	WG1496569
sec-Butylbenzene	0.00293		0.000125	0.00100	1	06/21/2020 20:29	WG1496569
Carbon disulfide	0.000474	J	0.0000962	0.00100	1	06/21/2020 20:29	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:29	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 20:29	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:29	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:29	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:29	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:29	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:29	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:29	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:29	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:29	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:29	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:29	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:29	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 20:29	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:29	WG1496569
Ethylbenzene	0.00317		0.000137	0.00100	1	06/21/2020 20:29	WG1496569
Isopropylbenzene	0.0234		0.000105	0.00100	1	06/21/2020 20:29	WG1496569
p-Isopropyltoluene	0.000516	J	0.000120	0.00100	1	06/21/2020 20:29	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:29	WG1496569
2-Hexanone	0.00100	J	0.000787	0.0100	1	06/21/2020 20:29	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:29	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:29	WG1496569
Methyl tert-butyl ether	0.00120		0.000101	0.00100	1	06/21/2020 20:29	WG1496569
Naphthalene	0.00109	J	0.00100	0.00500	1	06/21/2020 20:29	WG1496569
n-Propylbenzene	0.00630		0.0000993	0.00100	1	06/21/2020 20:29	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 20:29	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:29	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:29	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:29	WG1496569
Toluene	0.00195		0.000278	0.00100	1	06/21/2020 20:29	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:29	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:29	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 20:29	WG1496569
1,2,4-Trimethylbenzene	0.00959		0.000322	0.00100	1	06/21/2020 20:29	WG1496569
1,3,5-Trimethylbenzene	0.00206		0.000104	0.00100	1	06/21/2020 20:29	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:29	WG1496569
o-Xylene	0.00886		0.000174	0.00100	1	06/21/2020 20:29	WG1496569
m&p-Xylene	0.0232		0.000430	0.00200	1	06/21/2020 20:29	WG1496569
Xylenes, Total	0.0321		0.000174	0.00300	1	06/21/2020 20:29	WG1496569
(S) Toluene-d8	*97.8*			*80.0-120*		*06/21/2020 20:29*	WG1496569
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/21/2020 20:29*	WG1496569
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/21/2020 20:29*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.00		0.0247	0.100	1	06/24/2020 09:12	WG1496549
(S) o-Terphenyl	*111*			*31.0-160*		*06/24/2020 09:12*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3280		14.1	50.0	1	06/23/2020 23:41	WG1497357

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		5.00	10.0	100	06/25/2020 19:16	WG1498637

Sample Narrative:

L1230685-28 WG1498637: Diluted due to sulfide interfererence.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	239		19.0	50.0	50	06/25/2020 07:29	WG1497343
Fluoride	1.69		0.0640	0.150	1	06/25/2020 06:35	WG1497343
Sulfate	1590		29.7	250	50	06/25/2020 07:29	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000895	J	0.000735	0.00200	1	06/25/2020 20:57	WG1495381
Arsenic,Dissolved	0.000790	J	0.000735	0.00200	1	06/25/2020 14:58	WG1495350
Barium	0.0180	J	0.00778	0.0200	1	06/25/2020 20:57	WG1495381
Barium,Dissolved	0.0165	J	0.00778	0.0200	1	06/25/2020 14:58	WG1495350
Calcium	561		0.480	1.00	1	06/25/2020 20:57	WG1495381
Chromium	0.00316		0.00149	0.00200	1	06/25/2020 20:57	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 14:58	WG1495350
Iron	0.0721	J	0.0489	0.100	1	06/25/2020 20:57	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 14:58	WG1495350
Lead	0.00815		0.00249	0.00500	1	06/25/2020 20:57	WG1495381
Lead,Dissolved	0.00616		0.00249	0.00500	1	06/25/2020 14:58	WG1495350
Manganese	0.0213		0.00132	0.00500	1	06/25/2020 20:57	WG1495381
Manganese,Dissolved	0.0201		0.00132	0.00500	1	06/25/2020 14:58	WG1495350
Potassium	U		0.534	2.00	1	06/25/2020 20:57	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 20:57	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 14:58	WG1495350
Sodium	129		0.630	2.00	1	06/25/2020 20:57	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	16.7		0.628	2.00	20	06/24/2020 19:25	WG1497608
(S) a,a,a-Trifluorotoluene(FID)	*94.6*			*78.0-120*		*06/24/2020 19:25*	WG1497608

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	06/21/2020 21:26	WG1496569
Benzene	1.74		0.00471	0.0500	50	06/21/2020 21:26	WG1496569
Bromodichloromethane	U		0.00680	0.0500	50	06/21/2020 21:26	WG1496569
Bromoform	U		0.00645	0.0500	50	06/21/2020 21:26	WG1496569
Bromomethane	U		0.0303	0.250	50	06/21/2020 21:26	WG1496569
n-Butylbenzene	0.00835	J	0.00785	0.0500	50	06/21/2020 21:26	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0139	J	0.00625	0.0500	50	06/21/2020 21:26	WG1496569
Carbon disulfide	0.0181	J	0.00481	0.0500	50	06/21/2020 21:26	WG1496569
Carbon tetrachloride	U		0.00640	0.0500	50	06/21/2020 21:26	WG1496569
Chlorobenzene	U	J4	0.00580	0.0500	50	06/21/2020 21:26	WG1496569
Chlorodibromomethane	U		0.00700	0.0500	50	06/21/2020 21:26	WG1496569
Chloroethane	U		0.00960	0.250	50	06/21/2020 21:26	WG1496569
Chloroform	U		0.00555	0.250	50	06/21/2020 21:26	WG1496569
Chloromethane	U		0.0480	0.125	50	06/21/2020 21:26	WG1496569
1,2-Dibromoethane	U		0.00630	0.0500	50	06/21/2020 21:26	WG1496569
1,1-Dichloroethane	U		0.00500	0.0500	50	06/21/2020 21:26	WG1496569
1,2-Dichloroethane	U		0.00409	0.0500	50	06/21/2020 21:26	WG1496569
1,1-Dichloroethene	U		0.00940	0.0500	50	06/21/2020 21:26	WG1496569
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	06/21/2020 21:26	WG1496569
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	06/21/2020 21:26	WG1496569
1,2-Dichloropropane	U		0.00745	0.0500	50	06/21/2020 21:26	WG1496569
cis-1,3-Dichloropropene	U	J4	0.00555	0.0500	50	06/21/2020 21:26	WG1496569
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	06/21/2020 21:26	WG1496569
Ethylbenzene	0.711		0.00685	0.0500	50	06/21/2020 21:26	WG1496569
Isopropylbenzene	0.120		0.00525	0.0500	50	06/21/2020 21:26	WG1496569
p-Isopropyltoluene	0.00660	J	0.00600	0.0500	50	06/21/2020 21:26	WG1496569
2-Butanone (MEK)	U		0.0595	0.500	50	06/21/2020 21:26	WG1496569
2-Hexanone	0.0414	J	0.0394	0.500	50	06/21/2020 21:26	WG1496569
Methylene Chloride	U		0.0215	0.250	50	06/21/2020 21:26	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	06/21/2020 21:26	WG1496569
Methyl tert-butyl ether	U		0.00505	0.0500	50	06/21/2020 21:26	WG1496569
Naphthalene	0.255		0.0500	0.250	50	06/21/2020 21:26	WG1496569
n-Propylbenzene	0.140		0.00497	0.0500	50	06/21/2020 21:26	WG1496569
Styrene	U		0.00590	0.0500	50	06/21/2020 21:26	WG1496569
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	06/21/2020 21:26	WG1496569
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	06/21/2020 21:26	WG1496569
Tetrachloroethene	U		0.0150	0.0500	50	06/21/2020 21:26	WG1496569
Toluene	0.202		0.0139	0.0500	50	06/21/2020 21:26	WG1496569
1,1,1-Trichloroethane	U		0.00745	0.0500	50	06/21/2020 21:26	WG1496569
1,1,2-Trichloroethane	U		0.00790	0.0500	50	06/21/2020 21:26	WG1496569
Trichloroethene	U	J4	0.00950	0.0500	50	06/21/2020 21:26	WG1496569
1,2,4-Trimethylbenzene	0.646		0.0161	0.0500	50	06/21/2020 21:26	WG1496569
1,3,5-Trimethylbenzene	0.110		0.00520	0.0500	50	06/21/2020 21:26	WG1496569
Vinyl chloride	U		0.0117	0.0500	50	06/21/2020 21:26	WG1496569
o-Xylene	0.0256	J	0.00870	0.0500	50	06/21/2020 21:26	WG1496569
m&p-Xylene	2.14		0.0215	0.100	50	06/21/2020 21:26	WG1496569
Xylenes, Total	2.17		0.00870	0.150	50	06/21/2020 21:26	WG1496569
(S) Toluene-d8	*102*			*80.0-120*		*06/21/2020 21:26*	WG1496569
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/21/2020 21:26*	WG1496569
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*		*06/21/2020 21:26*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.31		0.0247	0.100	1	06/24/2020 09:38	WG1496549
(S) o-Terphenyl	*111*			*31.0-160*		*06/24/2020 09:38*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2520		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:17	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	92.9		0.379	1.00	1	06/25/2020 07:47	WG1497343
Fluoride	3.87		0.0640	0.150	1	06/25/2020 07:47	WG1497343
Sulfate	1450		11.9	100	20	06/25/2020 08:04	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00405		0.000735	0.00200	1	06/25/2020 21:01	WG1495381
Arsenic,Dissolved	0.00387		0.000735	0.00200	1	06/25/2020 15:01	WG1495350
Barium	0.0187	J	0.00778	0.0200	1	06/25/2020 21:01	WG1495381
Barium,Dissolved	0.0192	J	0.00778	0.0200	1	06/25/2020 15:01	WG1495350
Calcium	485		0.480	1.00	1	06/25/2020 21:01	WG1495381
Chromium	0.00188	J	0.00149	0.00200	1	06/25/2020 21:01	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:01	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 21:01	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:01	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 21:01	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:01	WG1495350
Manganese	0.182		0.00132	0.00500	1	06/25/2020 21:01	WG1495381
Manganese,Dissolved	0.175		0.00132	0.00500	1	06/25/2020 15:01	WG1495350
Potassium	4.43		0.534	2.00	1	06/25/2020 21:01	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 21:01	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:01	WG1495350
Sodium	151		0.630	2.00	1	06/25/2020 21:01	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.219		0.0314	0.100	1	06/22/2020 22:14	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*108*			*78.0-120*		*06/22/2020 22:14*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/21/2020 20:48	WG1496569
Benzene	0.000205	J	0.0000941	0.00100	1	06/21/2020 20:48	WG1496569
Bromodichloromethane	U		0.000136	0.00100	1	06/21/2020 20:48	WG1496569
Bromoform	U		0.000129	0.00100	1	06/21/2020 20:48	WG1496569
Bromomethane	U		0.000605	0.00500	1	06/21/2020 20:48	WG1496569
n-Butylbenzene	U		0.000157	0.00100	1	06/21/2020 20:48	WG1496569
sec-Butylbenzene	0.000279	J	0.000125	0.00100	1	06/21/2020 20:48	WG1496569
Carbon disulfide	0.000318	J	0.0000962	0.00100	1	06/21/2020 20:48	WG1496569
Carbon tetrachloride	U		0.000128	0.00100	1	06/21/2020 20:48	WG1496569

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/21/2020 20:48	WG1496569
Chlorodibromomethane	U		0.000140	0.00100	1	06/21/2020 20:48	WG1496569
Chloroethane	U		0.000192	0.00500	1	06/21/2020 20:48	WG1496569
Chloroform	U		0.000111	0.00500	1	06/21/2020 20:48	WG1496569
Chloromethane	U		0.000960	0.00250	1	06/21/2020 20:48	WG1496569
1,2-Dibromoethane	U		0.000126	0.00100	1	06/21/2020 20:48	WG1496569
1,1-Dichloroethane	U		0.000100	0.00100	1	06/21/2020 20:48	WG1496569
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/21/2020 20:48	WG1496569
1,1-Dichloroethene	U		0.000188	0.00100	1	06/21/2020 20:48	WG1496569
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/21/2020 20:48	WG1496569
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/21/2020 20:48	WG1496569
1,2-Dichloropropane	U		0.000149	0.00100	1	06/21/2020 20:48	WG1496569
cis-1,3-Dichloropropene	U	J4	0.000111	0.00100	1	06/21/2020 20:48	WG1496569
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/21/2020 20:48	WG1496569
Ethylbenzene	0.000865	J	0.000137	0.00100	1	06/21/2020 20:48	WG1496569
Isopropylbenzene	0.00269		0.000105	0.00100	1	06/21/2020 20:48	WG1496569
p-Isopropyltoluene	U		0.000120	0.00100	1	06/21/2020 20:48	WG1496569
2-Butanone (MEK)	U		0.00119	0.0100	1	06/21/2020 20:48	WG1496569
2-Hexanone	U		0.000787	0.0100	1	06/21/2020 20:48	WG1496569
Methylene Chloride	U		0.000430	0.00500	1	06/21/2020 20:48	WG1496569
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/21/2020 20:48	WG1496569
Methyl tert-butyl ether	0.000418	J	0.000101	0.00100	1	06/21/2020 20:48	WG1496569
Naphthalene	U		0.00100	0.00500	1	06/21/2020 20:48	WG1496569
n-Propylbenzene	0.000158	J	0.0000993	0.00100	1	06/21/2020 20:48	WG1496569
Styrene	U		0.000118	0.00100	1	06/21/2020 20:48	WG1496569
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/21/2020 20:48	WG1496569
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/21/2020 20:48	WG1496569
Tetrachloroethene	U		0.000300	0.00100	1	06/21/2020 20:48	WG1496569
Toluene	0.00150		0.000278	0.00100	1	06/21/2020 20:48	WG1496569
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/21/2020 20:48	WG1496569
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/21/2020 20:48	WG1496569
Trichloroethene	U	J4	0.000190	0.00100	1	06/21/2020 20:48	WG1496569
1,2,4-Trimethylbenzene	0.000959	J	0.000322	0.00100	1	06/21/2020 20:48	WG1496569
1,3,5-Trimethylbenzene	0.000180	J	0.000104	0.00100	1	06/21/2020 20:48	WG1496569
Vinyl chloride	U		0.000234	0.00100	1	06/21/2020 20:48	WG1496569
o-Xylene	0.00235		0.000174	0.00100	1	06/21/2020 20:48	WG1496569
m&p-Xylene	0.00152	J	0.000430	0.00200	1	06/21/2020 20:48	WG1496569
Xylenes, Total	0.00387		0.000174	0.00300	1	06/21/2020 20:48	WG1496569
(S) Toluene-d8	*101*			*80.0-120*		*06/21/2020 20:48*	WG1496569
(S) 4-Bromofluorobenzene	*115*			*77.0-126*		*06/21/2020 20:48*	WG1496569
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/21/2020 20:48*	WG1496569

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.33		0.0247	0.100	1	06/24/2020 10:04	WG1496549
(S) o-Terphenyl	*121*			*31.0-160*		*06/24/2020 10:04*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2430		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/25/2020 19:18	WG1498637

Sample Narrative:

L1230685-30 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	88.4		0.379	1.00	1	06/25/2020 08:22	WG1497343
Fluoride	1.88		0.0640	0.150	1	06/25/2020 08:22	WG1497343
Sulfate	1380		11.9	100	20	06/25/2020 08:40	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 21:05	WG1495381
Arsenic,Dissolved	U		0.000735	0.00200	1	06/25/2020 15:05	WG1495350
Barium	0.0218		0.00778	0.0200	1	06/25/2020 21:05	WG1495381
Barium,Dissolved	0.0204		0.00778	0.0200	1	06/25/2020 15:05	WG1495350
Calcium	374		0.480	1.00	1	06/25/2020 21:05	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 21:05	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:05	WG1495350
Iron	0.181		0.0489	0.100	1	06/25/2020 21:05	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:05	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 21:05	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:05	WG1495350
Manganese	0.0270		0.00132	0.00500	1	06/25/2020 21:05	WG1495381
Manganese,Dissolved	0.0260		0.00132	0.00500	1	06/25/2020 15:05	WG1495350
Potassium	1.30	J	0.534	2.00	1	06/25/2020 21:05	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 21:05	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:05	WG1495350
Sodium	90.4		0.630	2.00	1	06/25/2020 21:05	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.500		0.0314	0.100	1	06/22/2020 22:37	WG1497063
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*06/22/2020 22:37*	WG1497063

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 02:12	WG1496571
Benzene	0.000284	J	0.0000941	0.00100	1	06/22/2020 02:12	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 02:12	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 02:12	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 02:12	WG1496571
n-Butylbenzene	0.000245	J	0.000157	0.00100	1	06/22/2020 02:12	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0121		0.000125	0.00100	1	06/22/2020 02:12	WG1496571
Carbon disulfide	0.000625	J	0.0000962	0.00100	1	06/22/2020 02:12	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 02:12	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 02:12	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 02:12	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 02:12	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 02:12	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 02:12	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 02:12	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 02:12	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 02:12	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 02:12	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 02:12	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 02:12	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 02:12	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 02:12	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 02:12	WG1496571
Ethylbenzene	0.000220	J	0.000137	0.00100	1	06/22/2020 02:12	WG1496571
Isopropylbenzene	0.0484		0.000105	0.00100	1	06/22/2020 02:12	WG1496571
p-Isopropyltoluene	0.000184	J	0.000120	0.00100	1	06/22/2020 02:12	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 02:12	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 02:12	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 02:12	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 02:12	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 02:12	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 02:12	WG1496571
n-Propylbenzene	0.00210		0.0000993	0.00100	1	06/22/2020 02:12	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 02:12	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 02:12	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 02:12	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 02:12	WG1496571
Toluene	0.000363	J	0.000278	0.00100	1	06/22/2020 02:12	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 02:12	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 02:12	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 02:12	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 02:12	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 02:12	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 02:12	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 02:12	WG1496571
m&p-Xylene	0.00241		0.000430	0.00200	1	06/22/2020 02:12	WG1496571
Xylenes, Total	0.00241	J	0.000174	0.00300	1	06/22/2020 02:12	WG1496571
(S) Toluene-d8	*99.6*			*80.0-120*		*06/22/2020 02:12*	WG1496571
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*06/22/2020 02:12*	WG1496571
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/22/2020 02:12*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.45		0.0247	0.100	1	06/24/2020 10:30	WG1496549
(S) o-Terphenyl	*109*			*31.0-160*		*06/24/2020 10:30*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4930		28.2	100	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:20	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	875		19.0	50.0	50	06/25/2020 09:16	WG1497343
Fluoride	1.00		0.0640	0.150	1	06/25/2020 08:58	WG1497343
Sulfate	1780		29.7	250	50	06/25/2020 09:16	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0107		0.000735	0.00200	1	06/25/2020 21:08	WG1495381
Arsenic,Dissolved	0.0101		0.000735	0.00200	1	06/25/2020 15:09	WG1495350
Barium	0.0183	J	0.00778	0.0200	1	06/25/2020 21:08	WG1495381
Barium,Dissolved	0.0175	J	0.00778	0.0200	1	06/25/2020 15:09	WG1495350
Calcium	282		0.480	1.00	1	06/25/2020 21:08	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 21:08	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:09	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 21:08	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:09	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 21:08	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:09	WG1495350
Manganese	0.857		0.00132	0.00500	1	06/25/2020 21:08	WG1495381
Manganese,Dissolved	0.838		0.00132	0.00500	1	06/25/2020 15:09	WG1495350
Potassium	0.653	J	0.534	2.00	1	06/25/2020 21:08	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 21:08	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:09	WG1495350
Sodium	828		0.630	2.00	1	06/25/2020 21:08	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.309	B	0.0314	0.100	1	06/23/2020 22:32	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*87.0*			*78.0-120*		*06/23/2020 22:32*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 02:32	WG1496571
Benzene	0.0173		0.0000941	0.00100	1	06/22/2020 02:32	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 02:32	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 02:32	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 02:32	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 02:32	WG1496571
sec-Butylbenzene	0.00196		0.000125	0.00100	1	06/22/2020 02:32	WG1496571
Carbon disulfide	0.000737	J	0.0000962	0.00100	1	06/22/2020 02:32	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 02:32	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 02:32	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 02:32	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 02:32	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 02:32	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 02:32	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 02:32	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 02:32	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 02:32	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 02:32	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 02:32	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 02:32	WG1496571
1,2-Dichloropropane	0.00389		0.000149	0.00100	1	06/22/2020 02:32	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 02:32	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 02:32	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 02:32	WG1496571
Isopropylbenzene	0.00729		0.000105	0.00100	1	06/22/2020 02:32	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 02:32	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 02:32	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 02:32	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 02:32	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 02:32	WG1496571
Methyl tert-butyl ether	0.0254		0.000101	0.00100	1	06/22/2020 02:32	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 02:32	WG1496571
n-Propylbenzene	0.00135		0.0000993	0.00100	1	06/22/2020 02:32	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 02:32	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 02:32	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 02:32	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 02:32	WG1496571
Toluene	0.000350	J	0.000278	0.00100	1	06/22/2020 02:32	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 02:32	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 02:32	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 02:32	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 02:32	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 02:32	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 02:32	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 02:32	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 02:32	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 02:32	WG1496571
(S) Toluene-d8	*103*			*80.0-120*		*06/22/2020 02:32*	WG1496571
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*06/22/2020 02:32*	WG1496571
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/22/2020 02:32*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.53		0.0247	0.100	1	06/24/2020 10:55	WG1496549
(S) o-Terphenyl	*117*			*31.0-160*		*06/24/2020 10:55*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3330		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/25/2020 19:21	WG1498637

Sample Narrative:

L1230685-32 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	469		7.58	20.0	20	06/25/2020 10:04	WG1497343
Fluoride	1.21		0.0640	0.150	1	06/25/2020 09:47	WG1497343
Sulfate	1140		11.9	100	20	06/25/2020 10:04	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00452		0.000735	0.00200	1	06/25/2020 21:12	WG1495381
Arsenic,Dissolved	0.00428		0.000735	0.00200	1	06/25/2020 15:12	WG1495350
Barium	0.0367		0.00778	0.0200	1	06/25/2020 21:12	WG1495381
Barium,Dissolved	0.0370		0.00778	0.0200	1	06/25/2020 15:12	WG1495350
Calcium	293		0.480	1.00	1	06/25/2020 21:12	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 21:12	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:12	WG1495350
Iron	U		0.0489	0.100	1	06/25/2020 21:12	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:12	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 21:12	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:12	WG1495350
Manganese	0.355		0.00132	0.00500	1	06/25/2020 21:12	WG1495381
Manganese,Dissolved	0.354		0.00132	0.00500	1	06/25/2020 15:12	WG1495350
Potassium	1.51	J	0.534	2.00	1	06/25/2020 21:12	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 21:12	WG1495381
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:12	WG1495350
Sodium	425		0.630	2.00	1	06/25/2020 21:12	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.821		0.0314	0.100	1	06/23/2020 22:54	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*90.3*			*78.0-120*		*06/23/2020 22:54*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 02:53	WG1496571
Benzene	0.000141	J	0.0000941	0.00100	1	06/22/2020 02:53	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 02:53	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 02:53	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 02:53	WG1496571
n-Butylbenzene	0.000462	J	0.000157	0.00100	1	06/22/2020 02:53	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0152		0.000125	0.00100	1	06/22/2020 02:53	WG1496571
Carbon disulfide	0.000553	J	0.0000962	0.00100	1	06/22/2020 02:53	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 02:53	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 02:53	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 02:53	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 02:53	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 02:53	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 02:53	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 02:53	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 02:53	WG1496571
1,2-Dichloroethane	0.000218	J	0.0000819	0.00100	1	06/22/2020 02:53	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 02:53	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 02:53	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 02:53	WG1496571
1,2-Dichloropropane	0.00115		0.000149	0.00100	1	06/22/2020 02:53	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 02:53	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 02:53	WG1496571
Ethylbenzene	0.000448	J	0.000137	0.00100	1	06/22/2020 02:53	WG1496571
Isopropylbenzene	0.0791		0.000105	0.00100	1	06/22/2020 02:53	WG1496571
p-Isopropyltoluene	0.000410	J	0.000120	0.00100	1	06/22/2020 02:53	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 02:53	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 02:53	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 02:53	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 02:53	WG1496571
Methyl tert-butyl ether	0.0674		0.000101	0.00100	1	06/22/2020 02:53	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 02:53	WG1496571
n-Propylbenzene	0.00201		0.0000993	0.00100	1	06/22/2020 02:53	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 02:53	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 02:53	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 02:53	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 02:53	WG1496571
Toluene	0.00108		0.000278	0.00100	1	06/22/2020 02:53	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 02:53	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 02:53	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 02:53	WG1496571
1,2,4-Trimethylbenzene	0.000722	J	0.000322	0.00100	1	06/22/2020 02:53	WG1496571
1,3,5-Trimethylbenzene	0.000313	J	0.000104	0.00100	1	06/22/2020 02:53	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 02:53	WG1496571
o-Xylene	0.000387	J	0.000174	0.00100	1	06/22/2020 02:53	WG1496571
m&p-Xylene	0.000974	J	0.000430	0.00200	1	06/22/2020 02:53	WG1496571
Xylenes, Total	0.00136	J	0.000174	0.00300	1	06/22/2020 02:53	WG1496571
(S) Toluene-d8	*102*			*80.0-120*		*06/22/2020 02:53*	WG1496571
(S) 4-Bromofluorobenzene	*97.7*			*77.0-126*		*06/22/2020 02:53*	WG1496571
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/22/2020 02:53*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.02		0.0247	0.100	1	06/24/2020 11:21	WG1496549
(S) o-Terphenyl	*118*			*31.0-160*		*06/24/2020 11:21*	WG1496549

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3610		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:22	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	383		19.0	50.0	50	06/25/2020 11:16	WG1497343
Fluoride	1.71		0.0640	0.150	1	06/25/2020 10:22	WG1497343
Sulfate	1890		29.7	250	50	06/25/2020 11:16	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00842		0.000735	0.00200	1	06/25/2020 21:16	WG1495381
Arsenic,Dissolved	0.00598		0.000735	0.00200	1	06/25/2020 15:16	WG1495350
Barium	0.0172	J	0.00778	0.0200	1	06/25/2020 21:16	WG1495381
Barium,Dissolved	0.0170	J	0.00778	0.0200	1	06/25/2020 15:16	WG1495350
Calcium	396		0.480	1.00	1	06/25/2020 21:16	WG1495381
Chromium	U		0.00149	0.00200	1	06/25/2020 21:16	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:16	WG1495350
Iron	0.0632	J	0.0489	0.100	1	06/25/2020 21:16	WG1495381
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:16	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 21:16	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:16	WG1495350
Manganese	0.258		0.00132	0.00500	1	06/25/2020 21:16	WG1495381
Manganese,Dissolved	0.249		0.00132	0.00500	1	06/25/2020 15:16	WG1495350
Potassium	2.03		0.534	2.00	1	06/25/2020 21:16	WG1495381
Selenium	U		0.000657	0.00200	1	06/25/2020 22:12	WG1495381
Selenium,Dissolved	0.00119	J	0.000657	0.00200	1	06/25/2020 15:16	WG1495350
Sodium	356		0.630	2.00	1	06/25/2020 21:16	WG1495381

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0764	B J	0.0314	0.100	1	06/23/2020 23:16	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*89.9*			*78.0-120*		*06/23/2020 23:16*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 03:14	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 03:14	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 03:14	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 03:14	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 03:14	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 03:14	WG1496571
sec-Butylbenzene	0.000143	J	0.000125	0.00100	1	06/22/2020 03:14	WG1496571
Carbon disulfide	0.000212	J	0.0000962	0.00100	1	06/22/2020 03:14	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 03:14	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 03:14	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 03:14	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 03:14	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 03:14	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 03:14	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 03:14	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 03:14	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 03:14	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 03:14	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 03:14	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 03:14	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 03:14	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 03:14	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 03:14	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 03:14	WG1496571
Isopropylbenzene	0.000183	J	0.000105	0.00100	1	06/22/2020 03:14	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 03:14	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 03:14	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 03:14	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 03:14	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 03:14	WG1496571
Methyl tert-butyl ether	0.00162		0.000101	0.00100	1	06/22/2020 03:14	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 03:14	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 03:14	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 03:14	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 03:14	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 03:14	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 03:14	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 03:14	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 03:14	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 03:14	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 03:14	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 03:14	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 03:14	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 03:14	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 03:14	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 03:14	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 03:14	WG1496571
(S) Toluene-d8	*103*			*80.0-120*		*06/22/2020 03:14*	WG1496571
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/22/2020 03:14*	WG1496571
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/22/2020 03:14*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.75		0.0247	0.100	1	06/25/2020 15:52	WG1496551
(S) o-Terphenyl	*103*			*31.0-160*		*06/25/2020 15:52*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4720		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:25	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	181		37.9	100	100	06/25/2020 11:52	WG1497343
Fluoride	3.78		0.0640	0.150	1	06/25/2020 11:34	WG1497343
Sulfate	2970		59.4	500	100	06/25/2020 11:52	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0267		0.000735	0.00200	1	06/25/2020 21:19	WG1495381
Arsenic,Dissolved	0.0242		0.000735	0.00200	1	06/25/2020 15:35	WG1495350
Barium	0.0591		0.00778	0.0200	1	06/25/2020 21:19	WG1495381
Barium,Dissolved	0.0195	J	0.00778	0.0200	1	06/25/2020 15:35	WG1495350
Calcium	516		0.480	1.00	1	06/25/2020 21:19	WG1495381
Chromium	0.00287		0.00149	0.00200	1	06/25/2020 21:19	WG1495381
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:35	WG1495350
Iron	1.10		0.0489	0.100	1	06/25/2020 21:19	WG1495381
Iron,Dissolved	0.100		0.0489	0.100	1	06/25/2020 15:35	WG1495350
Lead	0.00385	J	0.00249	0.00500	1	06/25/2020 21:19	WG1495381
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:35	WG1495350
Manganese	0.0348		0.00132	0.00500	1	06/25/2020 21:19	WG1495381
Manganese,Dissolved	0.0546		0.00132	0.00500	1	06/25/2020 15:35	WG1495350
Potassium	1.65	J	0.534	2.00	1	06/25/2020 21:19	WG1495381
Selenium	0.0922		0.000657	0.00200	1	06/25/2020 21:19	WG1495381
Selenium,Dissolved	0.0777		0.000657	0.00200	1	06/25/2020 15:35	WG1495350
Sodium	492		0.630	2.00	1	06/25/2020 21:19	WG1495381

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	0.0228	J	0.0113	0.0500	1	06/22/2020 03:34	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 03:34	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 03:34	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 03:34	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 03:34	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 03:34	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 03:34	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 03:34	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 03:34	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 03:34	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 03:34	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 03:34	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 03:34	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 03:34	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 03:34	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 03:34	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 03:34	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 03:34	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 03:34	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 03:34	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 03:34	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 03:34	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 03:34	WG1496571
Ethylbenzene	0.000328	J	0.000137	0.00100	1	06/22/2020 03:34	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 03:34	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 03:34	WG1496571
2-Butanone (MEK)	0.0142		0.00119	0.0100	1	06/22/2020 03:34	WG1496571
2-Hexanone	0.00117	J	0.000787	0.0100	1	06/22/2020 03:34	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 03:34	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 03:34	WG1496571
Methyl tert-butyl ether	0.00482		0.000101	0.00100	1	06/22/2020 03:34	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 03:34	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 03:34	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 03:34	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 03:34	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 03:34	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 03:34	WG1496571
Toluene	0.000428	J	0.000278	0.00100	1	06/22/2020 03:34	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 03:34	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 03:34	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 03:34	WG1496571
1,2,4-Trimethylbenzene	0.000398	J	0.000322	0.00100	1	06/22/2020 03:34	WG1496571
1,3,5-Trimethylbenzene	0.000156	J	0.000104	0.00100	1	06/22/2020 03:34	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 03:34	WG1496571
o-Xylene	0.000377	J	0.000174	0.00100	1	06/22/2020 03:34	WG1496571
m&p-Xylene	0.000872	J	0.000430	0.00200	1	06/22/2020 03:34	WG1496571
Xylenes, Total	0.00125	J	0.000174	0.00300	1	06/22/2020 03:34	WG1496571
(S) Toluene-d8	*105*			*80.0-120*		*06/22/2020 03:34*	WG1496571
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/22/2020 03:34*	WG1496571
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/22/2020 03:34*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.12		0.0247	0.100	1	06/25/2020 16:17	WG1496551
(S) o-Terphenyl	*104*			*31.0-160*		*06/25/2020 16:17*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2890		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		10.0	20.0	200	06/25/2020 19:30	WG1498637

Sample Narrative:

L1230685-35 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	206		19.0	50.0	50	06/25/2020 12:28	WG1497343
Fluoride	1.11		0.0640	0.150	1	06/25/2020 12:10	WG1497343
Sulfate	1130		29.7	250	50	06/25/2020 12:28	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0201		0.000735	0.00200	1	06/25/2020 01:14	WG1495382
Arsenic,Dissolved	0.0209		0.000735	0.00200	1	06/25/2020 15:39	WG1495350
Barium	0.0341		0.00778	0.0200	1	06/25/2020 01:14	WG1495382
Barium,Dissolved	0.0344		0.00778	0.0200	1	06/25/2020 15:39	WG1495350
Calcium	295		0.480	1.00	1	06/25/2020 01:14	WG1495382
Chromium	0.00229		0.00149	0.00200	1	06/25/2020 01:14	WG1495382
Chromium,Dissolved	0.00176	J	0.00149	0.00200	1	06/25/2020 15:39	WG1495350
Iron	0.224		0.0489	0.100	1	06/25/2020 01:14	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:39	WG1495350
Lead	0.00386	J	0.00249	0.00500	1	06/25/2020 01:14	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:39	WG1495350
Manganese	0.0118		0.00132	0.00500	1	06/25/2020 12:55	WG1495382
Manganese,Dissolved	0.00784		0.00132	0.00500	1	06/25/2020 15:39	WG1495350
Potassium	1.53	J	0.534	2.00	1	06/25/2020 01:14	WG1495382
Selenium	0.000680	J	0.000657	0.00200	1	06/25/2020 01:14	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:39	WG1495350
Sodium	258		0.630	2.00	1	06/25/2020 01:14	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	28.4	B	6.28	20.0	200	06/23/2020 23:38	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*78.0-120*		*06/23/2020 23:38*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		1.13	5.00	100	06/25/2020 15:43	WG1499172
Benzene	9.39		0.00941	0.100	100	06/25/2020 15:43	WG1499172
Bromodichloromethane	U		0.0136	0.100	100	06/25/2020 15:43	WG1499172
Bromoform	U		0.0129	0.100	100	06/25/2020 15:43	WG1499172
Bromomethane	U		0.0605	0.500	100	06/25/2020 15:43	WG1499172
n-Butylbenzene	U		0.0157	0.100	100	06/25/2020 15:43	WG1499172

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.0125	0.100	100	06/25/2020 15:43	WG1499172
Carbon disulfide	U		0.00962	0.100	100	06/25/2020 15:43	WG1499172
Carbon tetrachloride	U		0.0128	0.100	100	06/25/2020 15:43	WG1499172
Chlorobenzene	U		0.0116	0.100	100	06/25/2020 15:43	WG1499172
Chlorodibromomethane	U		0.0140	0.100	100	06/25/2020 15:43	WG1499172
Chloroethane	U		0.0192	0.500	100	06/25/2020 15:43	WG1499172
Chloroform	U		0.0111	0.500	100	06/25/2020 15:43	WG1499172
Chloromethane	U		0.0960	0.250	100	06/25/2020 15:43	WG1499172
1,2-Dibromoethane	U		0.0126	0.100	100	06/25/2020 15:43	WG1499172
1,1-Dichloroethane	U		0.0100	0.100	100	06/25/2020 15:43	WG1499172
1,2-Dichloroethane	U		0.00819	0.100	100	06/25/2020 15:43	WG1499172
1,1-Dichloroethene	U		0.0188	0.100	100	06/25/2020 15:43	WG1499172
cis-1,2-Dichloroethene	U		0.0126	0.100	100	06/25/2020 15:43	WG1499172
trans-1,2-Dichloroethene	U		0.0149	0.100	100	06/25/2020 15:43	WG1499172
1,2-Dichloropropane	U		0.0149	0.100	100	06/25/2020 15:43	WG1499172
cis-1,3-Dichloropropene	U		0.0111	0.100	100	06/25/2020 15:43	WG1499172
trans-1,3-Dichloropropene	U		0.0118	0.100	100	06/25/2020 15:43	WG1499172
Ethylbenzene	0.0662	J	0.0137	0.100	100	06/25/2020 15:43	WG1499172
Isopropylbenzene	0.0273	J	0.0105	0.100	100	06/25/2020 15:43	WG1499172
p-Isopropyltoluene	U		0.0120	0.100	100	06/25/2020 15:43	WG1499172
2-Butanone (MEK)	U		0.119	1.00	100	06/25/2020 15:43	WG1499172
2-Hexanone	U		0.0787	1.00	100	06/25/2020 15:43	WG1499172
Methylene Chloride	U		0.0430	0.500	100	06/25/2020 15:43	WG1499172
4-Methyl-2-pentanone (MIBK)	U		0.0478	1.00	100	06/25/2020 15:43	WG1499172
Methyl tert-butyl ether	0.0672	J	0.0101	0.100	100	06/25/2020 15:43	WG1499172
Naphthalene	U		0.100	0.500	100	06/25/2020 15:43	WG1499172
n-Propylbenzene	0.0380	J	0.00993	0.100	100	06/25/2020 15:43	WG1499172
Styrene	U		0.0118	0.100	100	06/25/2020 15:43	WG1499172
1,1,1,2-Tetrachloroethane	U		0.0147	0.100	100	06/25/2020 15:43	WG1499172
1,1,2,2-Tetrachloroethane	U		0.0133	0.100	100	06/25/2020 15:43	WG1499172
Tetrachloroethene	U		0.0300	0.100	100	06/25/2020 15:43	WG1499172
Toluene	0.313		0.0278	0.100	100	06/25/2020 15:43	WG1499172
1,1,1-Trichloroethane	U		0.0149	0.100	100	06/25/2020 15:43	WG1499172
1,1,2-Trichloroethane	U		0.0158	0.100	100	06/25/2020 15:43	WG1499172
Trichloroethene	U		0.0190	0.100	100	06/25/2020 15:43	WG1499172
1,2,4-Trimethylbenzene	0.0861	J	0.0322	0.100	100	06/25/2020 15:43	WG1499172
1,3,5-Trimethylbenzene	0.0146	J	0.0104	0.100	100	06/25/2020 15:43	WG1499172
Vinyl chloride	U		0.0234	0.100	100	06/25/2020 15:43	WG1499172
o-Xylene	U		0.0174	0.100	100	06/25/2020 15:43	WG1499172
m&p-Xylene	0.173	J	0.0430	0.200	100	06/25/2020 15:43	WG1499172
Xylenes, Total	0.173	J	0.0174	0.300	100	06/25/2020 15:43	WG1499172
(S) Toluene-d8	*101*			*80.0-120*		*06/25/2020 15:43*	WG1499172
(S) 4-Bromofluorobenzene	*92.5*			*77.0-126*		*06/25/2020 15:43*	WG1499172
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*06/25/2020 15:43*	WG1499172

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	14.6		0.247	1.00	10	06/26/2020 10:21	WG1496551
(S) o-Terphenyl	*108*			*31.0-160*		*06/26/2020 10:21*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3620		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:31	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	236		19.0	50.0	50	06/25/2020 13:04	WG1497343
Fluoride	0.646		0.0640	0.150	1	06/25/2020 12:46	WG1497343
Sulfate	2010		29.7	250	50	06/25/2020 13:04	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00587	B	0.000735	0.00200	1	06/25/2020 01:17	WG1495382
Arsenic,Dissolved	0.00601		0.000735	0.00200	1	06/25/2020 15:43	WG1495350
Barium	0.0324		0.00778	0.0200	1	06/25/2020 01:17	WG1495382
Barium,Dissolved	0.0349		0.00778	0.0200	1	06/25/2020 15:43	WG1495350
Calcium	362		0.480	1.00	1	06/25/2020 01:17	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:17	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:43	WG1495350
Iron	0.561		0.0489	0.100	1	06/25/2020 01:17	WG1495382
Iron,Dissolved	0.574		0.0489	0.100	1	06/25/2020 15:43	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 01:17	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:43	WG1495350
Manganese	1.72		0.00132	0.00500	1	06/25/2020 12:58	WG1495382
Manganese,Dissolved	1.90		0.00132	0.00500	1	06/25/2020 15:43	WG1495350
Potassium	0.597	J	0.534	2.00	1	06/25/2020 01:17	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:17	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:43	WG1495350
Sodium	252		0.630	2.00	1	06/25/2020 01:17	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.411		0.0314	0.100	1	06/24/2020 00:00	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*		*06/24/2020 00:00*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 03:55	WG1496571
Benzene	0.000275	J	0.0000941	0.00100	1	06/22/2020 03:55	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 03:55	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 03:55	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 03:55	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 03:55	WG1496571
sec-Butylbenzene	0.00734		0.000125	0.00100	1	06/22/2020 03:55	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 03:55	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 03:55	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	0.000626	J	0.000116	0.00100	1	06/22/2020 03:55	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 03:55	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 03:55	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 03:55	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 03:55	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 03:55	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 03:55	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 03:55	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 03:55	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 03:55	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 03:55	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 03:55	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 03:55	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 03:55	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 03:55	WG1496571
Isopropylbenzene	0.0102		0.000105	0.00100	1	06/22/2020 03:55	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 03:55	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 03:55	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 03:55	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 03:55	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 03:55	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 03:55	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 03:55	WG1496571
n-Propylbenzene	0.000176	J	0.0000993	0.00100	1	06/22/2020 03:55	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 03:55	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 03:55	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 03:55	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 03:55	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 03:55	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 03:55	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 03:55	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 03:55	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 03:55	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 03:55	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 03:55	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 03:55	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 03:55	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 03:55	WG1496571
(S) Toluene-d8	*96.9*			*80.0-120*		*06/22/2020 03:55*	WG1496571
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*06/22/2020 03:55*	WG1496571
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/22/2020 03:55*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.55		0.0247	0.100	1	06/25/2020 16:43	WG1496551
(S) o-Terphenyl	*116*			*31.0-160*		*06/25/2020 16:43*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5550	Q	28.2	100	1	06/27/2020 18:38	WG1500391

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	74.6		5.00	10.0	100	06/25/2020 19:34	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	418		19.0	50.0	50	06/25/2020 13:39	WG1497343
Fluoride	2.92		0.0640	0.150	1	06/25/2020 13:22	WG1497343
Sulfate	3370		29.7	250	50	06/25/2020 13:39	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00379	B	0.000735	0.00200	1	06/25/2020 01:20	WG1495382
Arsenic,Dissolved	0.00399		0.000735	0.00200	1	06/25/2020 15:46	WG1495350
Barium	0.0113	J	0.00778	0.0200	1	06/25/2020 01:20	WG1495382
Barium,Dissolved	0.0125	J	0.00778	0.0200	1	06/25/2020 15:46	WG1495350
Calcium	495		0.480	1.00	1	06/25/2020 01:20	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:20	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:46	WG1495350
Iron	0.226		0.0489	0.100	1	06/25/2020 01:20	WG1495382
Iron,Dissolved	0.253		0.0489	0.100	1	06/25/2020 15:46	WG1495350
Lead	U		0.00249	0.00500	1	06/25/2020 01:20	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 15:46	WG1495350
Manganese	0.536		0.00132	0.00500	1	06/25/2020 13:01	WG1495382
Manganese,Dissolved	0.621		0.00132	0.00500	1	06/25/2020 15:46	WG1495350
Potassium	4.42		0.534	2.00	1	06/25/2020 01:20	WG1495382
Selenium	0.0309		0.000657	0.00200	1	06/25/2020 01:20	WG1495382
Selenium,Dissolved	0.0354		0.000657	0.00200	1	06/25/2020 15:46	WG1495350
Sodium	577		0.630	2.00	1	06/25/2020 01:20	WG1495382

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 04:16	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 04:16	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 04:16	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 04:16	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 04:16	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 04:16	WG1496571
sec-Butylbenzene	0.000485	J	0.000125	0.00100	1	06/22/2020 04:16	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 04:16	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 04:16	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 04:16	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 04:16	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 04:16	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 04:16	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 04:16	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 04:16	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 04:16	WG1496571

MW-30
Collected date/time: 06/16/20 12:35
L1230685

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 04:16	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 04:16	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 04:16	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 04:16	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 04:16	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 04:16	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 04:16	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 04:16	WG1496571
Isopropylbenzene	0.000106	J	0.000105	0.00100	1	06/22/2020 04:16	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 04:16	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 04:16	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 04:16	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 04:16	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 04:16	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 04:16	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 04:16	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 04:16	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 04:16	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 04:16	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 04:16	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 04:16	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 04:16	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 04:16	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 04:16	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 04:16	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 04:16	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 04:16	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 04:16	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 04:16	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 04:16	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 04:16	WG1496571
(S) Toluene-d8	*103*			*80.0-120*		*06/22/2020 04:16*	WG1496571
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*06/22/2020 04:16*	WG1496571
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/22/2020 04:16*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.522		0.0247	0.100	1	06/25/2020 17:09	WG1496551
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/25/2020 17:09*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2830		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		10.0	20.0	200	06/25/2020 19:35	WG1498637

Sample Narrative:

L1230685-38 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	501		19.0	50.0	50	06/25/2020 14:51	WG1497343
Fluoride	1.19		0.0640	0.150	1	06/25/2020 13:57	WG1497343
Sulfate	813		29.7	250	50	06/25/2020 14:51	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00524	B	0.000735	0.00200	1	06/25/2020 01:23	WG1495382
Arsenic,Dissolved	0.00555		0.000735	0.00200	1	06/25/2020 15:50	WG1495350
Barium	0.0561		0.00778	0.0200	1	06/25/2020 01:23	WG1495382
Barium,Dissolved	0.0603		0.00778	0.0200	1	06/25/2020 15:50	WG1495350
Calcium	478		0.480	1.00	1	06/25/2020 01:23	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:23	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 15:50	WG1495350
Iron	0.197		0.0489	0.100	1	06/25/2020 01:23	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 15:50	WG1495350
Lead	0.00610		0.00249	0.00500	1	06/25/2020 01:23	WG1495382
Lead,Dissolved	0.00498	J	0.00249	0.00500	1	06/25/2020 15:50	WG1495350
Manganese	0.00381	J	0.00132	0.00500	1	06/25/2020 13:05	WG1495382
Manganese,Dissolved	0.00244	J	0.00132	0.00500	1	06/25/2020 15:50	WG1495350
Potassium	U		0.534	2.00	1	06/25/2020 01:23	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:23	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 15:50	WG1495350
Sodium	36.7		0.630	2.00	1	06/25/2020 01:23	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	36.2		3.14	10.0	100	06/24/2020 00:22	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*06/24/2020 00:22*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		1.13	5.00	100	06/22/2020 07:22	WG1496571
Benzene	4.12		0.00941	0.100	100	06/22/2020 07:22	WG1496571
Bromodichloromethane	U		0.0136	0.100	100	06/22/2020 07:22	WG1496571
Bromoform	U		0.0129	0.100	100	06/22/2020 07:22	WG1496571
Bromomethane	U		0.0605	0.500	100	06/22/2020 07:22	WG1496571
n-Butylbenzene	U		0.0157	0.100	100	06/22/2020 07:22	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.0125	0.100	100	06/22/2020 07:22	WG1496571
Carbon disulfide	0.0254	J	0.00962	0.100	100	06/22/2020 07:22	WG1496571
Carbon tetrachloride	U		0.0128	0.100	100	06/22/2020 07:22	WG1496571
Chlorobenzene	U		0.0116	0.100	100	06/22/2020 07:22	WG1496571
Chlorodibromomethane	U		0.0140	0.100	100	06/22/2020 07:22	WG1496571
Chloroethane	U		0.0192	0.500	100	06/22/2020 07:22	WG1496571
Chloroform	U		0.0111	0.500	100	06/22/2020 07:22	WG1496571
Chloromethane	U		0.0960	0.250	100	06/22/2020 07:22	WG1496571
1,2-Dibromoethane	U		0.0126	0.100	100	06/22/2020 07:22	WG1496571
1,1-Dichloroethane	U		0.0100	0.100	100	06/22/2020 07:22	WG1496571
1,2-Dichloroethane	U		0.00819	0.100	100	06/22/2020 07:22	WG1496571
1,1-Dichloroethene	U		0.0188	0.100	100	06/22/2020 07:22	WG1496571
cis-1,2-Dichloroethene	U		0.0126	0.100	100	06/22/2020 07:22	WG1496571
trans-1,2-Dichloroethene	U		0.0149	0.100	100	06/22/2020 07:22	WG1496571
1,2-Dichloropropane	U		0.0149	0.100	100	06/22/2020 07:22	WG1496571
cis-1,3-Dichloropropene	U		0.0111	0.100	100	06/22/2020 07:22	WG1496571
trans-1,3-Dichloropropene	U		0.0118	0.100	100	06/22/2020 07:22	WG1496571
Ethylbenzene	1.85		0.0137	0.100	100	06/22/2020 07:22	WG1496571
Isopropylbenzene	0.105		0.0105	0.100	100	06/22/2020 07:22	WG1496571
p-Isopropyltoluene	U		0.0120	0.100	100	06/22/2020 07:22	WG1496571
2-Butanone (MEK)	U		0.119	1.00	100	06/22/2020 07:22	WG1496571
2-Hexanone	U		0.0787	1.00	100	06/22/2020 07:22	WG1496571
Methylene Chloride	U		0.0430	0.500	100	06/22/2020 07:22	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.0478	1.00	100	06/22/2020 07:22	WG1496571
Methyl tert-butyl ether	U		0.0101	0.100	100	06/22/2020 07:22	WG1496571
Naphthalene	U		0.100	0.500	100	06/22/2020 07:22	WG1496571
n-Propylbenzene	0.114		0.00993	0.100	100	06/22/2020 07:22	WG1496571
Styrene	U		0.0118	0.100	100	06/22/2020 07:22	WG1496571
1,1,1,2-Tetrachloroethane	U		0.0147	0.100	100	06/22/2020 07:22	WG1496571
1,1,2,2-Tetrachloroethane	U		0.0133	0.100	100	06/22/2020 07:22	WG1496571
Tetrachloroethene	U		0.0300	0.100	100	06/22/2020 07:22	WG1496571
Toluene	6.95		0.0278	0.100	100	06/22/2020 07:22	WG1496571
1,1,1-Trichloroethane	U		0.0149	0.100	100	06/22/2020 07:22	WG1496571
1,1,2-Trichloroethane	U		0.0158	0.100	100	06/22/2020 07:22	WG1496571
Trichloroethene	U		0.0190	0.100	100	06/22/2020 07:22	WG1496571
1,2,4-Trimethylbenzene	0.234		0.0322	0.100	100	06/22/2020 07:22	WG1496571
1,3,5-Trimethylbenzene	0.0671	J	0.0104	0.100	100	06/22/2020 07:22	WG1496571
Vinyl chloride	U		0.0234	0.100	100	06/22/2020 07:22	WG1496571
o-Xylene	0.649		0.0174	0.100	100	06/22/2020 07:22	WG1496571
m&p-Xylene	1.85		0.0430	0.200	100	06/22/2020 07:22	WG1496571
Xylenes, Total	2.50		0.0174	0.300	100	06/22/2020 07:22	WG1496571
(S) Toluene-d8	*104*			*80.0-120*		*06/22/2020 07:22*	WG1496571
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/22/2020 07:22*	WG1496571
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/22/2020 07:22*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	11.5		0.123	0.500	5	06/26/2020 09:55	WG1496551
(S) o-Terphenyl	*122*			*31.0-160*		*06/26/2020 09:55*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3120		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/25/2020 19:36	WG1498637

Sample Narrative:

L1230685-39 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	173		19.0	50.0	50	06/25/2020 15:27	WG1497343
Fluoride	2.25		0.0640	0.150	1	06/25/2020 15:09	WG1497343
Sulfate	1790		29.7	250	50	06/25/2020 15:27	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00299	B	0.000735	0.00200	1	06/25/2020 01:27	WG1495382
Arsenic,Dissolved	0.00285		0.000735	0.00200	1	06/22/2020 22:11	WG1496574
Barium	0.0150	J	0.00778	0.0200	1	06/25/2020 01:27	WG1495382
Barium,Dissolved	0.0146	J	0.00778	0.0200	1	06/22/2020 22:11	WG1496574
Calcium	331		0.480	1.00	1	06/25/2020 01:27	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:27	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:11	WG1496574
Iron	0.295		0.0489	0.100	1	06/25/2020 01:27	WG1495382
Iron,Dissolved	0.273		0.0489	0.100	1	06/22/2020 22:11	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:27	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:11	WG1496574
Manganese	0.0909		0.00132	0.00500	1	06/25/2020 13:08	WG1495382
Manganese,Dissolved	0.0892		0.00132	0.00500	1	06/22/2020 22:11	WG1496574
Potassium	1.13	J	0.534	2.00	1	06/25/2020 01:27	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:27	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/22/2020 22:11	WG1496574
Sodium	142		0.630	2.00	1	06/25/2020 01:27	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.412		0.0314	0.100	1	06/24/2020 00:44	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*90.8*			*78.0-120*		*06/24/2020 00:44*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 04:37	WG1496571
Benzene	0.00305		0.0000941	0.00100	1	06/22/2020 04:37	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 04:37	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 04:37	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 04:37	WG1496571
n-Butylbenzene	0.000319	J	0.000157	0.00100	1	06/22/2020 04:37	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.00725		0.000125	0.00100	1	06/22/2020 04:37	WG1496571
Carbon disulfide	0.000600	J	0.0000962	0.00100	1	06/22/2020 04:37	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 04:37	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 04:37	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 04:37	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 04:37	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 04:37	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 04:37	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 04:37	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 04:37	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 04:37	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 04:37	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 04:37	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 04:37	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 04:37	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 04:37	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 04:37	WG1496571
Ethylbenzene	0.000290	J	0.000137	0.00100	1	06/22/2020 04:37	WG1496571
Isopropylbenzene	0.0353		0.000105	0.00100	1	06/22/2020 04:37	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 04:37	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 04:37	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 04:37	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 04:37	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 04:37	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 04:37	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 04:37	WG1496571
n-Propylbenzene	0.00509		0.0000993	0.00100	1	06/22/2020 04:37	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 04:37	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 04:37	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 04:37	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 04:37	WG1496571
Toluene	0.000350	J	0.000278	0.00100	1	06/22/2020 04:37	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 04:37	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 04:37	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 04:37	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 04:37	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 04:37	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 04:37	WG1496571
o-Xylene	0.000299	J	0.000174	0.00100	1	06/22/2020 04:37	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 04:37	WG1496571
Xylenes, Total	0.000299	J	0.000174	0.00300	1	06/22/2020 04:37	WG1496571
(S) Toluene-d8	*103*			*80.0-120*		*06/22/2020 04:37*	WG1496571
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/22/2020 04:37*	WG1496571
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/22/2020 04:37*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.69		0.0247	0.100	1	06/26/2020 09:29	WG1496551
(S) o-Terphenyl	*145*			*31.0-160*		*06/26/2020 09:29*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1320		7.05	25.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/25/2020 19:37	WG1498637

Sample Narrative:

L1230685-40 WG1498637: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	131		3.79	10.0	10	06/25/2020 16:24	WG1497343
Fluoride	1.32		0.0640	0.150	1	06/25/2020 15:45	WG1497343
Sulfate	95.2		0.594	5.00	1	06/25/2020 15:45	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00241	B	0.000735	0.00200	1	06/25/2020 01:30	WG1495382
Arsenic,Dissolved	0.00225		0.000735	0.00200	1	06/22/2020 22:34	WG1496574
Barium	0.176		0.00778	0.0200	1	06/25/2020 01:30	WG1495382
Barium,Dissolved	0.166		0.00778	0.0200	1	06/22/2020 22:34	WG1496574
Calcium	147		0.480	1.00	1	06/25/2020 01:30	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:30	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:34	WG1496574
Iron	U		0.0489	0.100	1	06/25/2020 01:30	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:34	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:30	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:34	WG1496574
Manganese	U		0.00132	0.00500	1	06/25/2020 13:11	WG1495382
Manganese,Dissolved	U		0.00132	0.00500	1	06/22/2020 22:34	WG1496574
Potassium	1.52	J	0.534	2.00	1	06/25/2020 01:30	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:30	WG1495382
Selenium,Dissolved	0.000663	J	0.000657	0.00200	1	06/22/2020 22:34	WG1496574
Sodium	200		0.630	2.00	1	06/25/2020 01:30	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	30.4		1.57	5.00	50	06/24/2020 01:06	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*91.6*			*78.0-120*		*06/24/2020 01:06*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		2.82	12.5	250	06/25/2020 16:03	WG1499172
Benzene	U		0.0235	0.250	250	06/25/2020 16:03	WG1499172
Bromodichloromethane	U		0.0340	0.250	250	06/25/2020 16:03	WG1499172
Bromoform	U		0.0323	0.250	250	06/25/2020 16:03	WG1499172
Bromomethane	U		0.151	1.25	250	06/25/2020 16:03	WG1499172
n-Butylbenzene	U		0.0393	0.250	250	06/25/2020 16:03	WG1499172

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.0313	0.250	250	06/25/2020 16:03	WG1499172
Carbon disulfide	U		0.0241	0.250	250	06/25/2020 16:03	WG1499172
Carbon tetrachloride	U		0.0320	0.250	250	06/25/2020 16:03	WG1499172
Chlorobenzene	U		0.0290	0.250	250	06/25/2020 16:03	WG1499172
Chlorodibromomethane	U		0.0350	0.250	250	06/25/2020 16:03	WG1499172
Chloroethane	U		0.0480	1.25	250	06/25/2020 16:03	WG1499172
Chloroform	U		0.0278	1.25	250	06/25/2020 16:03	WG1499172
Chloromethane	U		0.240	0.625	250	06/25/2020 16:03	WG1499172
1,2-Dibromoethane	U		0.0315	0.250	250	06/25/2020 16:03	WG1499172
1,1-Dichloroethane	U		0.0250	0.250	250	06/25/2020 16:03	WG1499172
1,2-Dichloroethane	U		0.0205	0.250	250	06/25/2020 16:03	WG1499172
1,1-Dichloroethene	U		0.0470	0.250	250	06/25/2020 16:03	WG1499172
cis-1,2-Dichloroethene	U		0.0315	0.250	250	06/25/2020 16:03	WG1499172
trans-1,2-Dichloroethene	U		0.0373	0.250	250	06/25/2020 16:03	WG1499172
1,2-Dichloropropane	U		0.0373	0.250	250	06/25/2020 16:03	WG1499172
cis-1,3-Dichloropropene	U		0.0278	0.250	250	06/25/2020 16:03	WG1499172
trans-1,3-Dichloropropene	U		0.0295	0.250	250	06/25/2020 16:03	WG1499172
Ethylbenzene	U		0.0343	0.250	250	06/25/2020 16:03	WG1499172
Isopropylbenzene	0.0848	J	0.0263	0.250	250	06/25/2020 16:03	WG1499172
p-Isopropyltoluene	U		0.0300	0.250	250	06/25/2020 16:03	WG1499172
2-Butanone (MEK)	U		0.298	2.50	250	06/25/2020 16:03	WG1499172
2-Hexanone	U		0.197	2.50	250	06/25/2020 16:03	WG1499172
Methylene Chloride	U		0.108	1.25	250	06/25/2020 16:03	WG1499172
4-Methyl-2-pentanone (MIBK)	U		0.120	2.50	250	06/25/2020 16:03	WG1499172
Methyl tert-butyl ether	37.6		0.0253	0.250	250	06/25/2020 16:03	WG1499172
Naphthalene	U		0.250	1.25	250	06/25/2020 16:03	WG1499172
n-Propylbenzene	0.0797	J	0.0248	0.250	250	06/25/2020 16:03	WG1499172
Styrene	U		0.0295	0.250	250	06/25/2020 16:03	WG1499172
1,1,1,2-Tetrachloroethane	U		0.0368	0.250	250	06/25/2020 16:03	WG1499172
1,1,2,2-Tetrachloroethane	U		0.0333	0.250	250	06/25/2020 16:03	WG1499172
Tetrachloroethene	U		0.0750	0.250	250	06/25/2020 16:03	WG1499172
Toluene	U		0.0695	0.250	250	06/25/2020 16:03	WG1499172
1,1,1-Trichloroethane	U		0.0373	0.250	250	06/25/2020 16:03	WG1499172
1,1,2-Trichloroethane	U		0.0395	0.250	250	06/25/2020 16:03	WG1499172
Trichloroethene	U		0.0475	0.250	250	06/25/2020 16:03	WG1499172
1,2,4-Trimethylbenzene	U		0.0805	0.250	250	06/25/2020 16:03	WG1499172
1,3,5-Trimethylbenzene	U		0.0260	0.250	250	06/25/2020 16:03	WG1499172
Vinyl chloride	U		0.0585	0.250	250	06/25/2020 16:03	WG1499172
o-Xylene	U		0.0435	0.250	250	06/25/2020 16:03	WG1499172
m&p-Xylene	U		0.108	0.500	250	06/25/2020 16:03	WG1499172
Xylenes, Total	U		0.0435	0.750	250	06/25/2020 16:03	WG1499172
(S) Toluene-d8	*104*			*80.0-120*		*06/25/2020 16:03*	WG1499172
(S) 4-Bromofluorobenzene	*93.6*			*77.0-126*		*06/25/2020 16:03*	WG1499172
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*06/25/2020 16:03*	WG1499172

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.28		0.0247	0.100	1	06/25/2020 18:27	WG1496551
(S) o-Terphenyl	*125*			*31.0-160*		*06/25/2020 18:27*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2020		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/25/2020 19:39	WG1498637

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	300		3.79	10.0	10	06/25/2020 17:35	WG1497343
Fluoride	0.739		0.0640	0.150	1	06/25/2020 16:59	WG1497343
Sulfate	682		5.94	50.0	10	06/25/2020 17:35	WG1497343

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00135	B J	0.000735	0.00200	1	06/25/2020 01:33	WG1495382
Arsenic,Dissolved	0.00135	J	0.000735	0.00200	1	06/22/2020 22:37	WG1496574
Barium	0.0431		0.00778	0.0200	1	06/25/2020 01:33	WG1495382
Barium,Dissolved	0.0434		0.00778	0.0200	1	06/22/2020 22:37	WG1496574
Calcium	250		0.480	1.00	1	06/25/2020 01:33	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:33	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:37	WG1496574
Iron	0.0879	J	0.0489	0.100	1	06/25/2020 01:33	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:37	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:33	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:37	WG1496574
Manganese	0.156		0.00132	0.00500	1	06/25/2020 13:22	WG1495382
Manganese,Dissolved	0.151		0.00132	0.00500	1	06/22/2020 22:37	WG1496574
Potassium	U		0.534	2.00	1	06/25/2020 01:33	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:33	WG1495382
Selenium,Dissolved	0.000657	J	0.000657	0.00200	1	06/22/2020 22:37	WG1496574
Sodium	151		0.630	2.00	1	06/25/2020 01:33	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.162	B	0.0314	0.100	1	06/24/2020 01:28	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*90.2*			*78.0-120*		*06/24/2020 01:28*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 04:57	WG1496571
Benzene	0.000603	J	0.0000941	0.00100	1	06/22/2020 04:57	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 04:57	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 04:57	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 04:57	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 04:57	WG1496571
sec-Butylbenzene	0.00247		0.000125	0.00100	1	06/22/2020 04:57	WG1496571
Carbon disulfide	0.000192	J	0.0000962	0.00100	1	06/22/2020 04:57	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 04:57	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 04:57	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 04:57	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 04:57	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 04:57	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 04:57	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 04:57	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 04:57	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 04:57	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 04:57	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 04:57	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 04:57	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 04:57	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 04:57	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 04:57	WG1496571
Ethylbenzene	0.000196	J	0.000137	0.00100	1	06/22/2020 04:57	WG1496571
Isopropylbenzene	0.00904		0.000105	0.00100	1	06/22/2020 04:57	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 04:57	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 04:57	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 04:57	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 04:57	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 04:57	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 04:57	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 04:57	WG1496571
n-Propylbenzene	0.000158	J	0.0000993	0.00100	1	06/22/2020 04:57	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 04:57	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 04:57	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 04:57	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 04:57	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 04:57	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 04:57	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 04:57	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 04:57	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 04:57	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 04:57	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 04:57	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 04:57	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 04:57	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 04:57	WG1496571
(S) Toluene-d8	*102*			*80.0-120*		*06/22/2020 04:57*	WG1496571
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/22/2020 04:57*	WG1496571
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/22/2020 04:57*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.29		0.0247	0.100	1	06/25/2020 18:52	WG1496551
(S) o-Terphenyl	*113*			*31.0-160*		*06/25/2020 18:52*	WG1496551

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	0.000679	J	0.000211	0.00238	2.38	06/23/2020 17:37	WG1496709
Acenaphthylene	U		0.000219	0.00238	2.38	06/23/2020 17:37	WG1496709
Acetophenone	U		0.000495	0.0238	2.38	06/23/2020 17:37	WG1496709
Anthracene	U		0.000191	0.00238	2.38	06/23/2020 17:37	WG1496709

Received by OCD: 6/23/2021 4:05:29 PM

MW-33
Collected date/time: 06/16/20 16:45
L1230685

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Atrazine	U		0.000607	0.0238	2.38	06/23/2020 17:37	WG1496709
Benzo(a)anthracene	U		0.000474	0.00238	2.38	06/23/2020 17:37	WG1496709
Benzaldehyde	U	J4	0.00402	0.0238	2.38	06/23/2020 17:37	WG1496709
Benzo(b)fluoranthene	U		0.000309	0.00238	2.38	06/23/2020 17:37	WG1496709
Benzo(k)fluoranthene	U		0.000286	0.00238	2.38	06/23/2020 17:37	WG1496709
Benzo(g,h,i)perylene	U		0.000288	0.00238	2.38	06/23/2020 17:37	WG1496709
Benzo(a)pyrene	U		0.0000907	0.000476	2.38	06/23/2020 17:37	WG1496709
Biphenyl	U		0.00188	0.0238	2.38	06/23/2020 17:37	WG1496709
Bis(2-chlorethoxy)methane	U		0.000276	0.0238	2.38	06/23/2020 17:37	WG1496709
Bis(2-chloroethyl)ether	U		0.000326	0.0238	2.38	06/23/2020 17:37	WG1496709
2,2-Oxybis(1-Chloropropane)	U		0.000500	0.0238	2.38	06/23/2020 17:37	WG1496709
4-Bromophenyl-phenylether	U		0.000209	0.0238	2.38	06/23/2020 17:37	WG1496709
2-Chloronaphthalene	U		0.000154	0.00238	2.38	06/23/2020 17:37	WG1496709
4-Chlorophenyl-phenylether	U		0.000220	0.0238	2.38	06/23/2020 17:37	WG1496709
Caprolactam	U		0.000735	0.0238	2.38	06/23/2020 17:37	WG1496709
Carbazole	U		0.000264	0.0238	2.38	06/23/2020 17:37	WG1496709
Chrysene	U		0.000309	0.00238	2.38	06/23/2020 17:37	WG1496709
Dibenz(a,h)anthracene	U		0.000153	0.000476	2.38	06/23/2020 17:37	WG1496709
Dibenzofuran	0.00259	J	0.000231	0.0238	2.38	06/23/2020 17:37	WG1496709
3,3-Dichlorobenzidine	U		0.000505	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4-Dinitrotoluene	U		0.000234	0.0238	2.38	06/23/2020 17:37	WG1496709
2,6-Dinitrotoluene	U		0.000595	0.0238	2.38	06/23/2020 17:37	WG1496709
Fluoranthene	U		0.000243	0.00238	2.38	06/23/2020 17:37	WG1496709
Fluorene	U		0.000201	0.00238	2.38	06/23/2020 17:37	WG1496709
Hexachlorobenzene	U		0.000180	0.00238	2.38	06/23/2020 17:37	WG1496709
Hexachloro-1,3-butadiene	U		0.000230	0.0238	2.38	06/23/2020 17:37	WG1496709
Hexachlorocyclopentadiene	U		0.000142	0.0238	2.38	06/23/2020 17:37	WG1496709
Hexachloroethane	U		0.000302	0.0238	2.38	06/23/2020 17:37	WG1496709
Indeno(1,2,3-cd)pyrene	U		0.000664	0.00238	2.38	06/23/2020 17:37	WG1496709
Isophorone	U		0.000340	0.0238	2.38	06/23/2020 17:37	WG1496709
1-Methylnaphthalene	U		0.000188	0.00238	2.38	06/23/2020 17:37	WG1496709
2-Methylnaphthalene	U		0.000278	0.00238	2.38	06/23/2020 17:37	WG1496709
Naphthalene	0.00115	B J	0.000378	0.00238	2.38	06/23/2020 17:37	WG1496709
Nitrobenzene	U		0.000707	0.0238	2.38	06/23/2020 17:37	WG1496709
n-Nitrosodiphenylamine	U		0.00564	0.0238	2.38	06/23/2020 17:37	WG1496709
n-Nitrosodi-n-propylamine	U		0.000621	0.0238	2.38	06/23/2020 17:37	WG1496709
Phenanthrene	U		0.000267	0.00238	2.38	06/23/2020 17:37	WG1496709
Benzylbutyl phthalate	U		0.00182	0.00714	2.38	06/23/2020 17:37	WG1496709
Bis(2-ethylhexyl)phthalate	U		0.00213	0.00714	2.38	06/23/2020 17:37	WG1496709
Di-n-butyl phthalate	U		0.00108	0.00714	2.38	06/23/2020 17:37	WG1496709
Diethyl phthalate	U		0.000683	0.00714	2.38	06/23/2020 17:37	WG1496709
Dimethyl phthalate	U		0.000619	0.00714	2.38	06/23/2020 17:37	WG1496709
Di-n-octyl phthalate	U		0.00222	0.00714	2.38	06/23/2020 17:37	WG1496709
Pyrene	U		0.000255	0.00238	2.38	06/23/2020 17:37	WG1496709
1,2,4-Trichlorobenzene	U		0.000166	0.0238	2.38	06/23/2020 17:37	WG1496709
4-Chloro-3-methylphenol	U		0.000312	0.0238	2.38	06/23/2020 17:37	WG1496709
2-Chlorophenol	U		0.000317	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4-Dichlorophenol	U		0.000243	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4-Dimethylphenol	U		0.000151	0.0238	2.38	06/23/2020 17:37	WG1496709
4,6-Dinitro-2-methylphenol	U		0.00267	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4-Dinitrophenol	U		0.0141	0.0238	2.38	06/23/2020 17:37	WG1496709
2-Nitrophenol	U		0.000278	0.0238	2.38	06/23/2020 17:37	WG1496709
2-Nitroaniline	U		0.000243	0.0238	2.38	06/23/2020 17:37	WG1496709
2-Methylphenol	U		0.000221	0.0238	2.38	06/23/2020 17:37	WG1496709
3&4-Methyl Phenol	U		0.000400	0.0238	2.38	06/23/2020 17:37	WG1496709
3-Nitroaniline	U		0.000207	0.0238	2.38	06/23/2020 17:37	WG1496709

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MW-33
Collected date/time: 06/16/20 16:45
L1230685

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
4-Chloroaniline	U		0.000557	0.0238	2.38	06/23/2020 17:37	WG1496709
4-Nitroaniline	U		0.000217	0.0238	2.38	06/23/2020 17:37	WG1496709
4-Nitrophenol	U		0.000340	0.0238	2.38	06/23/2020 17:37	WG1496709
Pentachlorophenol	U		0.000745	0.0238	2.38	06/23/2020 17:37	WG1496709
Phenol	U		0.0103	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4,5-Trichlorophenol	U		0.000259	0.0238	2.38	06/23/2020 17:37	WG1496709
2,4,6-Trichlorophenol	U		0.000238	0.0238	2.38	06/23/2020 17:37	WG1496709
(S) 2-Fluorophenol	*45.2*			*10.0-120*		*06/23/2020 17:37*	WG1496709
(S) Phenol-d5	*31.5*			*10.0-120*		*06/23/2020 17:37*	WG1496709
(S) Nitrobenzene-d5	*62.6*			*10.0-127*		*06/23/2020 17:37*	WG1496709
(S) 2-Fluorobiphenyl	*58.4*			*10.0-130*		*06/23/2020 17:37*	WG1496709
(S) 2,4,6-Tribromophenol	*88.7*			*10.0-155*		*06/23/2020 17:37*	WG1496709
(S) p-Terphenyl-d14	*80.7*			*10.0-128*		*06/23/2020 17:37*	WG1496709

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1140		5.64	20.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/26/2020 13:54	WG1498640

Sample Narrative:

L1230685-42 WG1498640: Diluted due to sulfide interference.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	69.2		0.379	1.00	1	06/24/2020 04:28	WG1497346
Fluoride	1.33		0.0640	0.150	1	06/24/2020 04:28	WG1497346
Sulfate	703		11.9	100	20	06/24/2020 04:43	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00163	B J	0.000735	0.00200	1	06/25/2020 01:36	WG1495382
Arsenic,Dissolved	0.00162	J	0.000735	0.00200	1	06/22/2020 22:40	WG1496574
Barium	0.0237		0.00778	0.0200	1	06/25/2020 01:36	WG1495382
Barium,Dissolved	0.0224		0.00778	0.0200	1	06/22/2020 22:40	WG1496574
Calcium	218		0.480	1.00	1	06/25/2020 01:36	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:36	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:40	WG1496574
Iron	U		0.0489	0.100	1	06/25/2020 01:36	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:40	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:36	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:40	WG1496574
Manganese	0.0181		0.00132	0.00500	1	06/25/2020 13:25	WG1495382
Manganese,Dissolved	0.0173		0.00132	0.00500	1	06/22/2020 22:40	WG1496574
Potassium	4.88		0.534	2.00	1	06/25/2020 01:36	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:36	WG1495382
Selenium,Dissolved	0.000700	J	0.000657	0.00200	1	06/22/2020 22:40	WG1496574
Sodium	73.6		0.630	2.00	1	06/25/2020 01:36	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.22		0.0314	0.100	1	06/24/2020 01:50	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*91.1*			*78.0-120*		*06/24/2020 01:50*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 22:46	WG1498555
Benzene	0.0660		0.0000941	0.00100	1	06/24/2020 22:46	WG1498555
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 22:46	WG1498555
Bromoform	U		0.000129	0.00100	1	06/24/2020 22:46	WG1498555
Bromomethane	U		0.000605	0.00500	1	06/24/2020 22:46	WG1498555
n-Butylbenzene	0.000293	J	0.000157	0.00100	1	06/24/2020 22:46	WG1498555

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0367		0.000125	0.00100	1	06/24/2020 22:46	WG1498555
Carbon disulfide	0.000403	J	0.0000962	0.00100	1	06/24/2020 22:46	WG1498555
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 22:46	WG1498555
Chlorobenzene	U	J4	0.000116	0.00100	1	06/24/2020 22:46	WG1498555
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 22:46	WG1498555
Chloroethane	U		0.000192	0.00500	1	06/24/2020 22:46	WG1498555
Chloroform	U		0.000111	0.00500	1	06/24/2020 22:46	WG1498555
Chloromethane	U		0.000960	0.00250	1	06/24/2020 22:46	WG1498555
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 22:46	WG1498555
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 22:46	WG1498555
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 22:46	WG1498555
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 22:46	WG1498555
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 22:46	WG1498555
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 22:46	WG1498555
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 22:46	WG1498555
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 22:46	WG1498555
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 22:46	WG1498555
Ethylbenzene	0.000161	J	0.000137	0.00100	1	06/24/2020 22:46	WG1498555
Isopropylbenzene	0.0263		0.000105	0.00100	1	06/24/2020 22:46	WG1498555
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 22:46	WG1498555
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 22:46	WG1498555
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 22:46	WG1498555
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 22:46	WG1498555
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 22:46	WG1498555
Methyl tert-butyl ether	0.000790	J	0.000101	0.00100	1	06/24/2020 22:46	WG1498555
Naphthalene	U		0.00100	0.00500	1	06/24/2020 22:46	WG1498555
n-Propylbenzene	0.00216		0.0000993	0.00100	1	06/24/2020 22:46	WG1498555
Styrene	U		0.000118	0.00100	1	06/24/2020 22:46	WG1498555
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 22:46	WG1498555
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 22:46	WG1498555
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 22:46	WG1498555
Toluene	0.000403	J	0.000278	0.00100	1	06/24/2020 22:46	WG1498555
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 22:46	WG1498555
1,1,2-Trichloroethane	U	J4	0.000158	0.00100	1	06/24/2020 22:46	WG1498555
Trichloroethene	U	J4	0.000190	0.00100	1	06/24/2020 22:46	WG1498555
1,2,4-Trimethylbenzene	0.000368	J	0.000322	0.00100	1	06/24/2020 22:46	WG1498555
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/24/2020 22:46	WG1498555
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 22:46	WG1498555
o-Xylene	U		0.000174	0.00100	1	06/24/2020 22:46	WG1498555
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 22:46	WG1498555
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 22:46	WG1498555
(S) Toluene-d8	*87.5*			*80.0-120*		*06/24/2020 22:46*	WG1498555
(S) 4-Bromofluorobenzene	*85.3*			*77.0-126*		*06/24/2020 22:46*	WG1498555
(S) 1,2-Dichloroethane-d4	*99.6*			*70.0-130*		*06/24/2020 22:46*	WG1498555

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.03		0.0247	0.100	1	06/26/2020 09:04	WG1496551
(S) o-Terphenyl	*103*			*31.0-160*		*06/26/2020 09:04*	WG1496551

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3600		14.1	50.0	1	06/23/2020 23:59	WG1497359

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	8.27		0.500	1.00	10	06/26/2020 13:55	WG1498640

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:41	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	114		37.9	100	100	06/24/2020 08:24	WG1497346
Fluoride	0.343		0.0640	0.150	1	06/24/2020 12:58	WG1497346
Sulfate	2210		59.4	500	100	06/24/2020 08:24	WG1497346

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/21/2020 22:19	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:21	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.590		0.0254	0.200	1	06/25/2020 10:44	WG1495366
Boron,Dissolved	0.605		0.0254	0.200	1	06/25/2020 13:09	WG1495344

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00178	B J	0.000735	0.00200	1	06/25/2020 01:40	WG1495382
Arsenic,Dissolved	0.00163	J	0.000735	0.00200	1	06/22/2020 22:43	WG1496574
Barium	0.00890	J	0.00778	0.0200	1	06/25/2020 01:40	WG1495382
Barium,Dissolved	0.00779	J	0.00778	0.0200	1	06/22/2020 22:43	WG1496574
Cadmium	U		0.000478	0.00100	1	06/25/2020 01:40	WG1495382
Cadmium,Dissolved	U		0.000478	0.00100	1	06/22/2020 22:43	WG1496574
Calcium	525		0.480	1.00	1	06/25/2020 01:40	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:40	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:43	WG1496574
Cobalt	U		0.000477	0.00200	1	06/25/2020 01:40	WG1495382
Cobalt,Dissolved	U		0.000477	0.00200	1	06/22/2020 22:43	WG1496574
Iron	U		0.0489	0.100	1	06/25/2020 01:40	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:43	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:40	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:43	WG1496574
Manganese	U		0.00132	0.00500	1	06/25/2020 13:28	WG1495382
Manganese,Dissolved	0.00177	J	0.00132	0.00500	1	06/22/2020 22:43	WG1496574
Nickel	0.0162		0.000952	0.00200	1	06/25/2020 13:28	WG1495382
Nickel,Dissolved	U		0.000952	0.00200	1	06/22/2020 22:43	WG1496574

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.742	J	0.534	2.00	1	06/25/2020 01:40	WG1495382
Selenium	0.00254		0.000657	0.00200	1	06/25/2020 01:40	WG1495382
Selenium,Dissolved	0.00391		0.000657	0.00200	1	06/22/2020 22:43	WG1496574
Sodium	126		0.630	2.00	1	06/25/2020 01:40	WG1495382
Uranium	0.0266		0.00754	0.0200	1	06/25/2020 01:40	WG1495382
Uranium,Dissolved	0.0271		0.00754	0.0200	1	06/22/2020 22:43	WG1496574
Vanadium	0.0126		0.000986	0.00500	1	06/25/2020 01:40	WG1495382
Vanadium,Dissolved	0.0129		0.000986	0.00500	1	06/22/2020 22:43	WG1496574

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0359	B J	0.0314	0.100	1	06/24/2020 02:12	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*		*06/24/2020 02:12*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 05:18	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 05:18	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 05:18	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 05:18	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 05:18	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 05:18	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 05:18	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 05:18	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 05:18	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 05:18	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 05:18	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 05:18	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 05:18	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 05:18	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 05:18	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 05:18	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 05:18	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 05:18	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 05:18	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 05:18	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 05:18	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 05:18	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 05:18	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 05:18	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 05:18	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 05:18	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 05:18	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 05:18	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 05:18	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 05:18	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 05:18	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 05:18	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 05:18	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 05:18	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 05:18	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 05:18	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 05:18	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/22/2020 05:18	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 05:18	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 05:18	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 05:18	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 05:18	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 05:18	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 05:18	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 05:18	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 05:18	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 05:18	WG1496571
(S) Toluene-d8	*106*			*80.0-120*		*06/22/2020 05:18*	WG1496571
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/22/2020 05:18*	WG1496571
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/22/2020 05:18*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0415	J	0.0247	0.100	1	06/26/2020 08:38	WG1496551
(S) o-Terphenyl	*92.6*			*31.0-160*		*06/26/2020 08:38*	WG1496551

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4.00	J	2.82	10.0	1	06/23/2020 12:32	WG1497364

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 13:56	WG1498640

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/24/2020 08:39	WG1497346
Fluoride	U		0.0640	0.150	1	06/24/2020 08:39	WG1497346
Sulfate	U		0.594	5.00	1	06/24/2020 08:39	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/25/2020 01:43	WG1495382
Arsenic,Dissolved	U		0.000735	0.00200	1	06/22/2020 22:46	WG1496574
Barium	U		0.00778	0.0200	1	06/25/2020 01:43	WG1495382
Barium,Dissolved	U		0.00778	0.0200	1	06/22/2020 22:46	WG1496574
Calcium	U		0.480	1.00	1	06/25/2020 01:43	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:43	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:46	WG1496574
Iron	U		0.0489	0.100	1	06/25/2020 01:43	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:46	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:43	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:46	WG1496574
Manganese	U		0.00132	0.00500	1	06/25/2020 13:32	WG1495382
Manganese,Dissolved	U		0.00132	0.00500	1	06/22/2020 22:46	WG1496574
Potassium	U		0.534	2.00	1	06/25/2020 01:43	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:43	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/22/2020 22:46	WG1496574
Sodium	U		0.630	2.00	1	06/25/2020 01:43	WG1495382

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0419	B J	0.0314	0.100	1	06/24/2020 02:34	WG1497847
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*78.0-120*		*06/24/2020 02:34*	WG1497847

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 05:39	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 05:39	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 05:39	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 05:39	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 05:39	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 05:39	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 05:39	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 05:39	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 05:39	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 05:39	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 05:39	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 05:39	WG1496571
Chloroform	0.000130	J	0.000111	0.00500	1	06/22/2020 05:39	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 05:39	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 05:39	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 05:39	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 05:39	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 05:39	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 05:39	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 05:39	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 05:39	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 05:39	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 05:39	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 05:39	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 05:39	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 05:39	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 05:39	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 05:39	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 05:39	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 05:39	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 05:39	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 05:39	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 05:39	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 05:39	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 05:39	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 05:39	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 05:39	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 05:39	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 05:39	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 05:39	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 05:39	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 05:39	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 05:39	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 05:39	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 05:39	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 05:39	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 05:39	WG1496571
(S) Toluene-d8	*105*			*80.0-120*		*06/22/2020 05:39*	WG1496571
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/22/2020 05:39*	WG1496571
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/22/2020 05:39*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 02:36	WG1496551
(S) o-Terphenyl	*86.3*			*31.0-160*		*06/26/2020 02:36*	WG1496551

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	U		2.82	10.0	1	06/23/2020 12:32	WG1497364

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	06/26/2020 13:57	WG1498640

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/25/2020 22:42	WG1498827

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	U		0.379	1.00	1	06/24/2020 08:54	WG1497346
Fluoride	U		0.0640	0.150	1	06/24/2020 08:54	WG1497346
Sulfate	U		0.594	5.00	1	06/24/2020 08:54	WG1497346

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/21/2020 22:21	WG1495163
Mercury,Dissolved	U		0.000100	0.000200	1	06/21/2020 21:23	WG1495279

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0254	0.200	1	06/25/2020 10:47	WG1495366
Boron,Dissolved	U		0.0254	0.200	1	06/23/2020 04:42	WG1496573

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	U		0.000735	0.00200	1	06/25/2020 01:46	WG1495382
Arsenic,Dissolved	U		0.000735	0.00200	1	06/22/2020 22:50	WG1496574
Barium	U		0.00778	0.0200	1	06/25/2020 01:46	WG1495382
Barium,Dissolved	U		0.00778	0.0200	1	06/22/2020 22:50	WG1496574
Cadmium	U		0.000478	0.00100	1	06/25/2020 01:46	WG1495382
Cadmium,Dissolved	U		0.000478	0.00100	1	06/22/2020 22:50	WG1496574
Calcium	U		0.480	1.00	1	06/25/2020 01:46	WG1495382
Chromium	U		0.00149	0.00200	1	06/25/2020 01:46	WG1495382
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:50	WG1496574
Cobalt	U		0.000477	0.00200	1	06/25/2020 01:46	WG1495382
Cobalt,Dissolved	U		0.000477	0.00200	1	06/22/2020 22:50	WG1496574
Iron	U		0.0489	0.100	1	06/25/2020 01:46	WG1495382
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 22:50	WG1496574
Lead	U		0.00249	0.00500	1	06/25/2020 01:46	WG1495382
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:50	WG1496574
Manganese	U		0.00132	0.00500	1	06/25/2020 13:35	WG1495382
Manganese,Dissolved	U		0.00132	0.00500	1	06/22/2020 22:50	WG1496574
Nickel	0.00117	B J	0.000952	0.00200	1	06/25/2020 13:35	WG1495382
Nickel,Dissolved	U		0.000952	0.00200	1	06/22/2020 22:50	WG1496574

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	U		0.534	2.00	1	06/25/2020 01:46	WG1495382
Selenium	U		0.000657	0.00200	1	06/25/2020 01:46	WG1495382
Selenium,Dissolved	U		0.000657	0.00200	1	06/22/2020 22:50	WG1496574
Sodium	U		0.630	2.00	1	06/25/2020 01:46	WG1495382
Uranium	U		0.00754	0.0200	1	06/25/2020 01:46	WG1495382
Uranium,Dissolved	U		0.00754	0.0200	1	06/22/2020 22:50	WG1496574
Vanadium	U		0.000986	0.00500	1	06/25/2020 01:46	WG1495382
Vanadium,Dissolved	U		0.000986	0.00500	1	06/22/2020 22:50	WG1496574

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/24/2020 14:09	WG1498259
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*06/24/2020 14:09*	WG1498259

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 05:59	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 05:59	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 05:59	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 05:59	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 05:59	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 05:59	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 05:59	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 05:59	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 05:59	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 05:59	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 05:59	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 05:59	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 05:59	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 05:59	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 05:59	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 05:59	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 05:59	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 05:59	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 05:59	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 05:59	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 05:59	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 05:59	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 05:59	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 05:59	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 05:59	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 05:59	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 05:59	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 05:59	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 05:59	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 05:59	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 05:59	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 05:59	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 05:59	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 05:59	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 05:59	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 05:59	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 05:59	WG1496571

Received by OCD: 6/23/2021 4:05:29 PM

Collected date/time: 06/16/20 14:15 L1230685

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	06/22/2020 05:59	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 05:59	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 05:59	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 05:59	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 05:59	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 05:59	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 05:59	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 05:59	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 05:59	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 05:59	WG1496571
(S) Toluene-d8	*105*			*80.0-120*		*06/22/2020 05:59*	WG1496571
(S) 4-Bromofluorobenzene	*97.5*			*77.0-126*		*06/22/2020 05:59*	WG1496571
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/22/2020 05:59*	WG1496571

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 03:02	WG1496551
(S) o-Terphenyl	*79.5*			*31.0-160*		*06/26/2020 03:02*	WG1496551

1 Cp 2 Tc 3 Ss 4 Cn 5 Sr 6 Qc 7 Gl 8 Al 9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 01:30	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 01:30	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 01:30	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 01:30	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 01:30	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 01:30	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 01:30	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 01:30	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 01:30	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 01:30	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 01:30	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 01:30	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 01:30	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 01:30	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 01:30	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 01:30	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 01:30	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 01:30	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 01:30	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 01:30	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 01:30	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 01:30	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 01:30	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 01:30	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 01:30	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 01:30	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 01:30	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 01:30	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 01:30	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 01:30	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 01:30	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 01:30	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 01:30	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 01:30	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 01:30	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 01:30	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 01:30	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 01:30	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 01:30	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 01:30	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 01:30	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 01:30	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 01:30	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 01:30	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 01:30	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 01:30	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 01:30	WG1496571
(S) Toluene-d8	*105*			*80.0-120*		*06/22/2020 01:30*	WG1496571
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*06/22/2020 01:30*	WG1496571
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/22/2020 01:30*	WG1496571

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/22/2020 01:51	WG1496571
Benzene	U		0.0000941	0.00100	1	06/22/2020 01:51	WG1496571
Bromodichloromethane	U		0.000136	0.00100	1	06/22/2020 01:51	WG1496571
Bromoform	U		0.000129	0.00100	1	06/22/2020 01:51	WG1496571
Bromomethane	U		0.000605	0.00500	1	06/22/2020 01:51	WG1496571
n-Butylbenzene	U		0.000157	0.00100	1	06/22/2020 01:51	WG1496571
sec-Butylbenzene	U		0.000125	0.00100	1	06/22/2020 01:51	WG1496571
Carbon disulfide	U		0.0000962	0.00100	1	06/22/2020 01:51	WG1496571
Carbon tetrachloride	U		0.000128	0.00100	1	06/22/2020 01:51	WG1496571
Chlorobenzene	U		0.000116	0.00100	1	06/22/2020 01:51	WG1496571
Chlorodibromomethane	U		0.000140	0.00100	1	06/22/2020 01:51	WG1496571
Chloroethane	U		0.000192	0.00500	1	06/22/2020 01:51	WG1496571
Chloroform	U		0.000111	0.00500	1	06/22/2020 01:51	WG1496571
Chloromethane	U		0.000960	0.00250	1	06/22/2020 01:51	WG1496571
1,2-Dibromoethane	U		0.000126	0.00100	1	06/22/2020 01:51	WG1496571
1,1-Dichloroethane	U		0.000100	0.00100	1	06/22/2020 01:51	WG1496571
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/22/2020 01:51	WG1496571
1,1-Dichloroethene	U		0.000188	0.00100	1	06/22/2020 01:51	WG1496571
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/22/2020 01:51	WG1496571
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/22/2020 01:51	WG1496571
1,2-Dichloropropane	U		0.000149	0.00100	1	06/22/2020 01:51	WG1496571
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/22/2020 01:51	WG1496571
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/22/2020 01:51	WG1496571
Ethylbenzene	U		0.000137	0.00100	1	06/22/2020 01:51	WG1496571
Isopropylbenzene	U		0.000105	0.00100	1	06/22/2020 01:51	WG1496571
p-Isopropyltoluene	U		0.000120	0.00100	1	06/22/2020 01:51	WG1496571
2-Butanone (MEK)	U		0.00119	0.0100	1	06/22/2020 01:51	WG1496571
2-Hexanone	U		0.000787	0.0100	1	06/22/2020 01:51	WG1496571
Methylene Chloride	U		0.000430	0.00500	1	06/22/2020 01:51	WG1496571
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/22/2020 01:51	WG1496571
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/22/2020 01:51	WG1496571
Naphthalene	U		0.00100	0.00500	1	06/22/2020 01:51	WG1496571
n-Propylbenzene	U		0.0000993	0.00100	1	06/22/2020 01:51	WG1496571
Styrene	U		0.000118	0.00100	1	06/22/2020 01:51	WG1496571
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/22/2020 01:51	WG1496571
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/22/2020 01:51	WG1496571
Tetrachloroethene	U		0.000300	0.00100	1	06/22/2020 01:51	WG1496571
Toluene	U		0.000278	0.00100	1	06/22/2020 01:51	WG1496571
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/22/2020 01:51	WG1496571
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/22/2020 01:51	WG1496571
Trichloroethene	U		0.000190	0.00100	1	06/22/2020 01:51	WG1496571
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/22/2020 01:51	WG1496571
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/22/2020 01:51	WG1496571
Vinyl chloride	U		0.000234	0.00100	1	06/22/2020 01:51	WG1496571
o-Xylene	U		0.000174	0.00100	1	06/22/2020 01:51	WG1496571
m&p-Xylene	U		0.000430	0.00200	1	06/22/2020 01:51	WG1496571
Xylenes, Total	U		0.000174	0.00300	1	06/22/2020 01:51	WG1496571
(S) Toluene-d8	*106*			*80.0-120*		*06/22/2020 01:51*	WG1496571
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*		*06/22/2020 01:51*	WG1496571
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/22/2020 01:51*	WG1496571

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4280		14.1	50.0	1	06/23/2020 12:32	WG1497364

Sample Narrative:

L1230685-48 WG1497364: Due to a matrix interference, achieving a constant weight is not possible

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.460		0.0500	0.100	1	06/26/2020 13:59	WG1498640

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	211		3.79	10.0	10	06/24/2020 09:09	WG1497346
Fluoride	2.03		0.640	1.50	10	06/24/2020 09:09	WG1497346
Sulfate	2490		59.4	500	100	06/24/2020 09:24	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00451		0.000735	0.00200	1	06/24/2020 14:59	WG1497198
Arsenic,Dissolved	0.00253		0.000735	0.00200	1	06/22/2020 22:53	WG1496574
Barium	0.0243		0.00778	0.0200	1	06/24/2020 14:59	WG1497198
Barium,Dissolved	0.0103	J	0.00778	0.0200	1	06/22/2020 22:53	WG1496574
Calcium	515		0.480	1.00	1	06/24/2020 14:59	WG1497198
Chromium	0.00223		0.00149	0.00200	1	06/24/2020 14:59	WG1497198
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 22:53	WG1496574
Iron	3.06		0.0489	0.100	1	06/24/2020 14:59	WG1497198
Iron,Dissolved	0.0508	J	0.0489	0.100	1	06/22/2020 22:53	WG1496574
Lead	0.00276	J	0.00249	0.00500	1	06/24/2020 14:59	WG1497198
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 22:53	WG1496574
Manganese	0.0307		0.00132	0.00500	1	06/24/2020 14:59	WG1497198
Manganese,Dissolved	0.00789		0.00132	0.00500	1	06/22/2020 22:53	WG1496574
Potassium	0.990	J	0.534	2.00	1	06/24/2020 14:59	WG1497198
Selenium	0.00475		0.000657	0.00200	1	06/24/2020 14:59	WG1497198
Selenium,Dissolved	0.00517		0.000657	0.00200	1	06/22/2020 22:53	WG1496574
Sodium	120		0.630	2.00	1	06/24/2020 14:59	WG1497198

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 09:39	WG1497269
Benzene	U		0.0000941	0.00100	1	06/23/2020 09:39	WG1497269
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 09:39	WG1497269
Bromoform	U		0.000129	0.00100	1	06/23/2020 09:39	WG1497269
Bromomethane	U		0.000605	0.00500	1	06/23/2020 09:39	WG1497269
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 09:39	WG1497269
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 09:39	WG1497269
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 09:39	WG1497269
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 09:39	WG1497269
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 09:39	WG1497269
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 09:39	WG1497269
Chloroethane	U		0.000192	0.00500	1	06/23/2020 09:39	WG1497269
Chloroform	U		0.000111	0.00500	1	06/23/2020 09:39	WG1497269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloromethane	U		0.000960	0.00250	1	06/23/2020 09:39	WG1497269
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 09:39	WG1497269
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 09:39	WG1497269
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 09:39	WG1497269
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 09:39	WG1497269
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 09:39	WG1497269
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 09:39	WG1497269
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 09:39	WG1497269
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 09:39	WG1497269
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 09:39	WG1497269
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 09:39	WG1497269
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 09:39	WG1497269
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 09:39	WG1497269
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 09:39	WG1497269
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 09:39	WG1497269
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 09:39	WG1497269
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 09:39	WG1497269
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 09:39	WG1497269
Naphthalene	U		0.00100	0.00500	1	06/23/2020 09:39	WG1497269
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 09:39	WG1497269
Styrene	U		0.000118	0.00100	1	06/23/2020 09:39	WG1497269
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 09:39	WG1497269
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 09:39	WG1497269
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 09:39	WG1497269
Toluene	U		0.000278	0.00100	1	06/23/2020 09:39	WG1497269
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 09:39	WG1497269
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 09:39	WG1497269
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 09:39	WG1497269
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 09:39	WG1497269
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 09:39	WG1497269
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 09:39	WG1497269
o-Xylene	U		0.000174	0.00100	1	06/23/2020 09:39	WG1497269
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 09:39	WG1497269
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 09:39	WG1497269
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 09:39*	WG1497269
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 09:39*	WG1497269
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 09:39*	WG1497269

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4210		14.1	50.0	1	06/23/2020 12:32	WG1497364

Sample Narrative:

L1230685-49 WG1497364: Due to a matrix interference, achieving a constant weight is not possible

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.520		0.0500	0.100	1	06/26/2020 14:00	WG1498640

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	282		37.9	100	100	06/24/2020 09:54	WG1497346
Fluoride	1.59		0.0640	0.150	1	06/24/2020 13:13	WG1497346
Sulfate	2270		59.4	500	100	06/24/2020 09:54	WG1497346

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00294		0.000735	0.00200	1	06/24/2020 15:02	WG1497198
Arsenic,Dissolved	0.00285		0.000735	0.00200	1	06/22/2020 21:48	WG1496574
Barium	0.00939	J	0.00778	0.0200	1	06/24/2020 15:02	WG1497198
Barium,Dissolved	0.00796	J	0.00778	0.0200	1	06/22/2020 21:48	WG1496574
Calcium	559		0.480	1.00	1	06/24/2020 15:02	WG1497198
Chromium	U		0.00149	0.00200	1	06/24/2020 15:02	WG1497198
Chromium,Dissolved	U		0.00149	0.00200	1	06/22/2020 21:48	WG1496574
Iron	0.161		0.0489	0.100	1	06/24/2020 15:02	WG1497198
Iron,Dissolved	U		0.0489	0.100	1	06/22/2020 21:48	WG1496574
Lead	U		0.00249	0.00500	1	06/24/2020 15:02	WG1497198
Lead,Dissolved	U		0.00249	0.00500	1	06/22/2020 21:48	WG1496574
Manganese	0.0241		0.00132	0.00500	1	06/24/2020 15:02	WG1497198
Manganese,Dissolved	0.00841		0.00132	0.00500	1	06/22/2020 21:48	WG1496574
Potassium	1.11	J	0.534	2.00	1	06/24/2020 15:02	WG1497198
Selenium	0.00730		0.000657	0.00200	1	06/24/2020 15:02	WG1497198
Selenium,Dissolved	0.00674		0.000657	0.00200	1	06/22/2020 21:48	WG1496574
Sodium	177		0.630	2.00	1	06/24/2020 15:02	WG1497198

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/24/2020 14:29	WG1498259
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*06/24/2020 14:29*	WG1498259

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 10:00	WG1497269
Benzene	U		0.0000941	0.00100	1	06/23/2020 10:00	WG1497269
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 10:00	WG1497269
Bromoform	U		0.000129	0.00100	1	06/23/2020 10:00	WG1497269
Bromomethane	U		0.000605	0.00500	1	06/23/2020 10:00	WG1497269
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 10:00	WG1497269

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 10:00	WG1497269
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 10:00	WG1497269
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 10:00	WG1497269
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 10:00	WG1497269
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 10:00	WG1497269
Chloroethane	U		0.000192	0.00500	1	06/23/2020 10:00	WG1497269
Chloroform	U		0.000111	0.00500	1	06/23/2020 10:00	WG1497269
Chloromethane	U		0.000960	0.00250	1	06/23/2020 10:00	WG1497269
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 10:00	WG1497269
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 10:00	WG1497269
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 10:00	WG1497269
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 10:00	WG1497269
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 10:00	WG1497269
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 10:00	WG1497269
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 10:00	WG1497269
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 10:00	WG1497269
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 10:00	WG1497269
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 10:00	WG1497269
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 10:00	WG1497269
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 10:00	WG1497269
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 10:00	WG1497269
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 10:00	WG1497269
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 10:00	WG1497269
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 10:00	WG1497269
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 10:00	WG1497269
Naphthalene	U		0.00100	0.00500	1	06/23/2020 10:00	WG1497269
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 10:00	WG1497269
Styrene	U		0.000118	0.00100	1	06/23/2020 10:00	WG1497269
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 10:00	WG1497269
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 10:00	WG1497269
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 10:00	WG1497269
Toluene	U		0.000278	0.00100	1	06/23/2020 10:00	WG1497269
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 10:00	WG1497269
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 10:00	WG1497269
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 10:00	WG1497269
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 10:00	WG1497269
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 10:00	WG1497269
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 10:00	WG1497269
o-Xylene	U		0.000174	0.00100	1	06/23/2020 10:00	WG1497269
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 10:00	WG1497269
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 10:00	WG1497269
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 10:00*	WG1497269
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 10:00*	WG1497269
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 10:00*	WG1497269

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 03:28	WG1496551
(S) o-Terphenyl	*76.8*			*31.0-160*		*06/26/2020 03:28*	WG1496551

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 08:57	WG1497269
Benzene	U		0.0000941	0.00100	1	06/23/2020 08:57	WG1497269
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 08:57	WG1497269
Bromoform	U		0.000129	0.00100	1	06/23/2020 08:57	WG1497269
Bromomethane	U		0.000605	0.00500	1	06/23/2020 08:57	WG1497269
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 08:57	WG1497269
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 08:57	WG1497269
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 08:57	WG1497269
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 08:57	WG1497269
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 08:57	WG1497269
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 08:57	WG1497269
Chloroethane	U		0.000192	0.00500	1	06/23/2020 08:57	WG1497269
Chloroform	U		0.000111	0.00500	1	06/23/2020 08:57	WG1497269
Chloromethane	U		0.000960	0.00250	1	06/23/2020 08:57	WG1497269
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 08:57	WG1497269
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 08:57	WG1497269
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 08:57	WG1497269
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 08:57	WG1497269
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 08:57	WG1497269
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 08:57	WG1497269
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 08:57	WG1497269
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 08:57	WG1497269
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 08:57	WG1497269
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 08:57	WG1497269
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 08:57	WG1497269
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 08:57	WG1497269
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 08:57	WG1497269
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 08:57	WG1497269
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 08:57	WG1497269
4-Methyl-2-pentanone (MIBK)	0.00201	J	0.000478	0.0100	1	06/23/2020 08:57	WG1497269
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 08:57	WG1497269
Naphthalene	U		0.00100	0.00500	1	06/23/2020 08:57	WG1497269
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 08:57	WG1497269
Styrene	U		0.000118	0.00100	1	06/23/2020 08:57	WG1497269
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 08:57	WG1497269
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 08:57	WG1497269
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 08:57	WG1497269
Toluene	U		0.000278	0.00100	1	06/23/2020 08:57	WG1497269
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 08:57	WG1497269
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 08:57	WG1497269
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 08:57	WG1497269
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 08:57	WG1497269
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 08:57	WG1497269
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 08:57	WG1497269
o-Xylene	U		0.000174	0.00100	1	06/23/2020 08:57	WG1497269
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 08:57	WG1497269
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 08:57	WG1497269
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 08:57*	WG1497269
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*06/23/2020 08:57*	WG1497269
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/23/2020 08:57*	WG1497269

Method Blank (MB)

(MB) R3542393-1 06/22/20 23:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	6650		2.82	10.0

Laboratory Control Sample (LCS)

(LCS) R3542393-2 06/22/20 23:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8310	94.4	85.0-115	

Method Blank (MB)

(MB) R3543100-1 06/23/20 22:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230681-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1230681-16 06/23/20 22:49 • (DUP) R3543100-3 06/23/20 22:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	5360	4110	1	26.4	J3	5

L1230685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-01 06/23/20 22:49 • (DUP) R3543100-4 06/23/20 22:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2810	2760	1	1.80		5

Laboratory Control Sample (LCS)

(LCS) R3543100-2 06/23/20 22:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8680	98.6	85.0-115	

Method Blank (MB)

(MB) R3542620-1 06/23/20 23:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230685-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-10 06/23/20 23:41 • (DUP) R3542620-3 06/23/20 23:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4010	3980	1	0.626		5

L1230685-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-28 06/23/20 23:41 • (DUP) R3542620-4 06/23/20 23:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3280	3420	1	4.03		5

Laboratory Control Sample (LCS)

(LCS) R3542620-2 06/23/20 23:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7990	90.8	85.0-115	

Method Blank (MB)

(MB) R3542931-1 06/23/20 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230685-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-29 06/23/20 23:59 • (DUP) R3542931-3 06/23/20 23:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2520	2420	1	4.05		5

L1230685-43 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-43 06/23/20 23:59 • (DUP) R3542931-4 06/23/20 23:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3600	3650	1	1.38		5

Laboratory Control Sample (LCS)

(LCS) R3542931-2 06/23/20 23:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8200	93.2	85.0-115	

Method Blank (MB)

(MB) R3542234-1 06/23/20 12:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1230685-48 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-48 06/23/20 12:32 • (DUP) R3542234-3 06/23/20 12:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4280	4360	1	1.85		5

Sample Narrative:

OS: Due to a matrix interference, achieving a constant weight is not possible

Laboratory Control Sample (LCS)

(LCS) R3542234-2 06/23/20 12:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8790	99.9	85.0-115	

Method Blank (MB)

(MB) R3544437-1 06/27/20 18:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1232516-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1232516-02 06/27/20 18:38 • (DUP) R3544437-3 06/27/20 18:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4560	4250	1	7.04	J3	5

Laboratory Control Sample (LCS)

(LCS) R3544437-2 06/27/20 18:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8030	91.3	85.0-115	

Method Blank (MB)

(MB) R3543581-1 06/26/20 18:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-01 06/26/20 18:08 • (DUP) R3543581-3 06/26/20 18:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1230685-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-12 06/26/20 18:29 • (DUP) R3543581-6 06/26/20 18:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	13.8	14.0	5	1.44		20

Laboratory Control Sample (LCS)

(LCS) R3543581-2 06/26/20 18:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.10	103	90.0-110	

L1230685-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-05 06/26/20 18:14 • (MS) R3543581-4 06/26/20 18:15 • (MSD) R3543581-5 06/26/20 18:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.478	3.29	3.30	112	113	1	90.0-110	J5	J5	0.303	20

L1230685-20 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230685-20 06/26/20 18:44 • (MS) R3543581-7 06/26/20 18:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.212	3.02	112	1	90.0-110	J5

Method Blank (MB)

(MB) R3543135-1 06/25/20 18:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230685-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-22 06/25/20 19:01 • (DUP) R3543135-3 06/25/20 19:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	1.93	1.94	1	0.517		20

L1230685-33 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-33 06/25/20 19:22 • (DUP) R3543135-6 06/25/20 19:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543135-2 06/25/20 19:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.03	101	90.0-110	

L1230685-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-26 06/25/20 19:07 • (MS) R3543135-4 06/25/20 19:08 • (MSD) R3543135-5 06/25/20 19:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.72	2.73	109	109	1	90.0-110			0.367	20

L1230685-36 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230685-36 06/25/20 19:31 • (MS) R3543135-7 06/25/20 19:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.75	110	1	90.0-110	

Method Blank (MB)

(MB) R3543435-1 06/26/20 13:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230262-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1230262-09 06/26/20 13:37 • (DUP) R3543435-3 06/26/20 13:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	0.0585	1	0.000		20

L1230687-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1230687-03 06/26/20 14:06 • (DUP) R3543435-5 06/26/20 14:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	2	0.000		20

Sample Narrative:

OS: Diluted due to sulfide interference.

Laboratory Control Sample (LCS)

(LCS) R3543435-2 06/26/20 13:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.03	101	90.0-110	

L1230262-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230262-15 06/26/20 13:50 • (MS) R3543435-4 06/26/20 13:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	2.41	4.89	99.2	1	90.0-110	

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L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/26/20 14:10 • (MS) R3543435-6 06/26/20 14:11 • (MSD) R3543435-7 06/26/20 14:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.0966	2.82	2.84	109	110	1	90.0-110			0.707	20

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Method Blank (MB)

(MB) R3543143-1 06/25/20 22:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1230655-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230655-02 06/25/20 22:17 • (DUP) R3543143-3 06/25/20 22:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1230685-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-24 06/25/20 22:34 • (DUP) R3543143-6 06/25/20 22:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543143-2 06/25/20 22:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.103	103	90.0-110	

L1230685-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-02 06/25/20 22:25 • (MS) R3543143-4 06/25/20 22:26 • (MSD) R3543143-5 06/25/20 22:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0841	0.0852	84.1	85.2	1	75.0-125			1.30	20

L1230685-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-25 06/25/20 22:38 • (MS) R3543143-7 06/25/20 22:39 • (MSD) R3543143-8 06/25/20 22:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0877	0.0944	87.7	94.4	1	75.0-125			7.36	20

Method Blank (MB)

(MB) R3543209-1 06/25/20 01:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-01 06/25/20 02:38 • (DUP) R3543209-3 06/25/20 02:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.915	0.902	1	1.47		15

L1230685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-01 06/25/20 03:12 • (DUP) R3543209-4 06/25/20 03:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	458	455	20	0.496		15
Sulfate	834	829	20	0.616		15

L1230685-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-17 06/25/20 14:28 • (DUP) R3543209-7 06/25/20 14:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	69.8	69.7	1	0.173		15
Fluoride	1.51	1.52	1	0.396		15

L1230685-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-17 06/25/20 15:50 • (DUP) R3543209-8 06/25/20 16:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	703	707	10	0.577		15

Laboratory Control Sample (LCS)

(LCS) R3543209-2 06/25/20 02:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.7	102	80.0-120	
Fluoride	8.00	8.00	100	80.0-120	
Sulfate	40.0	41.5	104	80.0-120	

L1230685-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-11 06/25/20 09:58 • (MS) R3543209-5 06/25/20 10:15 • (MSD) R3543209-6 06/25/20 10:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	271	308	309	73.8	74.4	1	80.0-120	E V	E V	0.0923	15
Fluoride	5.00	0.865	5.63	5.83	95.3	99.2	1	80.0-120			3.42	15
Sulfate	50.0	24.7	75.0	74.5	101	99.7	1	80.0-120			0.581	15

L1230685-18 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230685-18 06/25/20 16:24 • (MS) R3543209-9 06/25/20 16:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	313	347	69.0	1	80.0-120	E V
Fluoride	5.00	0.993	5.77	95.5	1	80.0-120	
Sulfate	50.0	5.03	56.0	102	1	80.0-120	

Method Blank (MB)

(MB) R3543218-1 06/24/20 23:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230685-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-27 06/25/20 05:23 • (DUP) R3543218-5 06/25/20 05:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	97.7	97.0	1	0.646		15
Fluoride	3.45	3.43	1	0.481		15

L1230685-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-27 06/25/20 05:59 • (DUP) R3543218-6 06/25/20 06:17

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	821	832	20	1.30		15

L1230685-40 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-40 06/25/20 15:45 • (DUP) R3543218-7 06/25/20 16:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.32	1.30	1	1.11		15
Sulfate	95.2	93.3	1	1.93		15

L1230685-40 Original Sample (OS) • Duplicate (DUP)

(OS) L1230685-40 06/25/20 16:24 • (DUP) R3543218-8 06/25/20 16:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	131	131	10	0.267		15

Laboratory Control Sample (LCS)

(LCS) R3543218-2 06/24/20 23:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.3	101	80.0-120	
Fluoride	8.00	8.19	102	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1230685-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-25 06/25/20 02:42 • (MS) R3543218-3 06/25/20 03:36 • (MSD) R3543218-4 06/25/20 04:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	75.9	123	123	94.7	94.7	1	80.0-120	E	E	0.0125	15
Fluoride	5.00	1.52	6.40	6.39	97.6	97.4	1	80.0-120			0.145	15
Sulfate	50.0	1090	1080	1080	0.000	0.000	1	80.0-120	E V	E V	0.0531	15

L1230685-41 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230685-41 06/25/20 16:59 • (MS) R3543218-9 06/25/20 17:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	303	338	70.9	1	80.0-120	E V
Fluoride	5.00	0.739	5.61	97.4	1	80.0-120	
Sulfate	50.0	693	656	0.000	1	80.0-120	E V

Method Blank (MB)

(MB) R3542446-1 06/23/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/23/20 23:14 • (DUP) R3542446-3 06/23/20 23:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	61.0	61.0	1	0.127		15
Fluoride	0.105	0.102	1	2.42	J	15

L1230678-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1230678-06 06/24/20 02:58 • (DUP) R3542446-6 06/24/20 03:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1230674-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230674-01 06/24/20 10:43 • (DUP) R3542446-8 06/24/20 11:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	156	154	5	1.33		15

Laboratory Control Sample (LCS)

(LCS) R3542446-2 06/23/20 19:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.0	97.6	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	39.7	99.3	80.0-120	

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L1230674-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230674-02 06/23/20 23:44 • (MS) R3542446-4 06/23/20 23:59 • (MSD) R3542446-5 06/24/20 00:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	63.8	112	112	95.7	96.0	1	80.0-120	E	E	0.142	15
Fluoride	5.00	0.123	5.09	5.12	99.3	99.9	1	80.0-120			0.537	15
Sulfate	50.0	159	198	199	78.5	79.2	1	80.0-120	E J6	E J6	0.178	15

L1230681-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230681-21 06/24/20 03:28 • (MS) R3542446-7 06/24/20 03:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	50.0	99.9	1	80.0-120	
Fluoride	5.00	U	4.99	99.9	1	80.0-120	
Sulfate	50.0	U	50.4	101	1	80.0-120	

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Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3541144-1 06/21/20 21:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541144-2 06/21/20 21:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00311	104	80.0-120	

L1230687-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-04 06/21/20 21:38 • (MS) R3541144-3 06/21/20 21:40 • (MSD) R3541144-4 06/21/20 21:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00229	0.00212	76.2	70.8	1	75.0-125		J6	7.39	20

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3541143-1 06/21/20 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541143-2 06/21/20 20:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00335	112	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/21/20 20:38 • (MS) R3541143-3 06/21/20 20:40 • (MSD) R3541143-4 06/21/20 20:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00246	0.00247	82.0	82.2	1	75.0-125			0.166	20

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3542922-1 06/25/20 11:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542922-2 06/25/20 11:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	1.02	102	80.0-120	

L1230685-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-22 06/25/20 11:51 • (MS) R3542922-4 06/25/20 11:57 • (MSD) R3542922-5 06/25/20 12:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.184	1.21	1.22	103	103	1	75.0-125			0.380	20

Method Blank (MB)

(MB) R3542943-1 06/25/20 09:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3542943-2 06/25/20 09:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.945	94.5	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/25/20 09:49 • (MS) R3542943-4 06/25/20 09:55 • (MSD) R3542943-5 06/25/20 09:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	2.08	3.00	3.02	92.7	94.0	1	75.0-125			0.448	20

Method Blank (MB)

(MB) R3541824-1 06/23/20 03:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3541824-2 06/23/20 03:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.970	97.0	80.0-120	

L1230687-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230687-05 06/23/20 03:47 • (MS) R3541824-4 06/23/20 03:52 • (MSD) R3541824-5 06/23/20 03:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	2.10	3.11	3.06	101	96.2	1	75.0-125			1.51	20

Method Blank (MB)

(MB) R3542614-1 06/24/20 20:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3542614-2 06/24/20 20:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0487	97.3	80.0-120	
Barium,Dissolved	0.0500	0.0494	98.9	80.0-120	
Cadmium,Dissolved	0.0500	0.0513	103	80.0-120	
Chromium,Dissolved	0.0500	0.0499	99.7	80.0-120	
Cobalt,Dissolved	0.0500	0.0501	100	80.0-120	
Iron,Dissolved	5.00	4.95	99.1	80.0-120	
Lead,Dissolved	0.0500	0.0502	100	80.0-120	
Manganese,Dissolved	0.0500	0.0492	98.4	80.0-120	
Nickel,Dissolved	0.0500	0.0494	98.9	80.0-120	
Selenium,Dissolved	0.0500	0.0527	105	80.0-120	
Uranium,Dissolved	0.0500	0.0481	96.3	80.0-120	
Vanadium,Dissolved	0.0500	0.0490	98.0	80.0-120	

L1230681-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-19 06/24/20 20:53 • (MS) R3542614-4 06/24/20 21:00 • (MSD) R3542614-5 06/24/20 21:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	U	0.0493	0.0489	98.6	97.8	1	75.0-125			0.894	20
Barium,Dissolved	0.0500	U	0.0489	0.0500	97.7	100	1	75.0-125			2.29	20
Cadmium,Dissolved	0.0500	U	0.0515	0.0514	103	103	1	75.0-125			0.204	20

L1230681-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-19 06/24/20 20:53 • (MS) R3542614-4 06/24/20 21:00 • (MSD) R3542614-5 06/24/20 21:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0513	0.0508	103	102	1	75.0-125			0.922	20
Cobalt,Dissolved	0.0500	U	0.0520	0.0514	104	103	1	75.0-125			1.13	20
Iron,Dissolved	5.00	U	5.04	5.03	101	101	1	75.0-125			0.348	20
Lead,Dissolved	0.0500	U	0.0499	0.0501	99.7	100	1	75.0-125			0.502	20
Manganese,Dissolved	0.0500	U	0.0513	0.0505	103	101	1	75.0-125			1.44	20
Nickel,Dissolved	0.0500	U	0.0513	0.0514	103	103	1	75.0-125			0.206	20
Selenium,Dissolved	0.0500	U	0.0532	0.0520	106	104	1	75.0-125			2.21	20
Uranium,Dissolved	0.0500	U	0.0483	0.0479	96.6	95.9	1	75.0-125			0.780	20
Vanadium,Dissolved	0.0500	U	0.0501	0.0497	100	99.3	1	75.0-125			0.915	20

Method Blank (MB)

(MB) R3543024-1 06/25/20 13:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543024-2 06/25/20 13:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0495	99.0	80.0-120	
Barium,Dissolved	0.0500	0.0507	101	80.0-120	
Cadmium,Dissolved	0.0500	0.0527	105	80.0-120	
Chromium,Dissolved	0.0500	0.0539	108	80.0-120	
Cobalt,Dissolved	0.0500	0.0532	106	80.0-120	
Iron,Dissolved	5.00	5.25	105	80.0-120	
Lead,Dissolved	0.0500	0.0512	102	80.0-120	
Manganese,Dissolved	0.0500	0.0532	106	80.0-120	
Nickel,Dissolved	0.0500	0.0550	110	80.0-120	
Selenium,Dissolved	0.0500	0.0576	115	80.0-120	
Uranium,Dissolved	0.0500	0.0503	101	80.0-120	
Vanadium,Dissolved	0.0500	0.0515	103	80.0-120	

L1230685-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-18 06/25/20 13:58 • (MS) R3543024-4 06/25/20 14:06 • (MSD) R3543024-5 06/25/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0247	0.0757	0.0731	102	96.8	1	75.0-125			3.41	20
Barium,Dissolved	0.0500	2.27	2.29	2.29	30.9	27.7	1	75.0-125	V	V	0.0692	20
Cadmium,Dissolved	0.0500	U	0.0530	0.0538	106	108	1	75.0-125			1.43	20

L1230685-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-18 06/25/20 13:58 • (MS) R3543024-4 06/25/20 14:06 • (MSD) R3543024-5 06/25/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0521	0.0512	104	102	1	75.0-125			1.83	20
Cobalt,Dissolved	0.0500	U	0.0509	0.0498	102	99.6	1	75.0-125			2.27	20
Iron,Dissolved	5.00	U	5.10	4.97	102	99.4	1	75.0-125			2.54	20
Lead,Dissolved	0.0500	U	0.0538	0.0532	108	106	1	75.0-125			1.18	20
Manganese,Dissolved	0.0500	0.0932	0.145	0.139	104	91.8	1	75.0-125			4.43	20
Nickel,Dissolved	0.0500	0.00157	0.0520	0.0513	101	99.4	1	75.0-125			1.47	20
Selenium,Dissolved	0.0500	U	0.0634	0.0601	127	120	1	75.0-125	J5		5.43	20
Uranium,Dissolved	0.0500	U	0.0539	0.0532	108	106	1	75.0-125			1.28	20
Vanadium,Dissolved	0.0500	0.00148	0.0531	0.0511	103	99.3	1	75.0-125			3.74	20

Method Blank (MB)

(MB) R3542965-1 06/25/20 13:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3542965-2 06/25/20 13:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0491	98.2	80.0-120	
Barium	0.0500	0.0498	99.5	80.0-120	
Cadmium	0.0500	0.0533	107	80.0-120	
Calcium	5.00	5.02	100	80.0-120	
Chromium	0.0500	0.0524	105	80.0-120	
Cobalt	0.0500	0.0519	104	80.0-120	
Iron	5.00	5.37	107	80.0-120	
Lead	0.0500	0.0490	98.1	80.0-120	
Manganese	0.0500	0.0513	103	80.0-120	
Nickel	0.0500	0.0541	108	80.0-120	
Potassium	5.00	4.92	98.4	80.0-120	
Selenium	0.0500	0.0493	98.7	80.0-120	
Sodium	5.00	5.17	103	80.0-120	
Uranium	0.0500	0.0496	99.2	80.0-120	
Vanadium	0.0500	0.0515	103	80.0-120	

L1230681-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230681-15 06/25/20 13:17 • (MS) R3542965-4 06/25/20 13:24 • (MSD) R3542965-5 06/25/20 13:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0100	0.00419	0.0505	0.0499	92.6	91.5	5	75.0-125			1.09	20
Barium	0.0100	U	0.0644	0.0648	129	130	5	75.0-125	J5	J5	0.540	20
Cadmium	0.0100	U	0.0510	0.0498	102	99.7	5	75.0-125			2.37	20
Calcium	1.00	574	593	610	375	726	5	75.0-125	V	V	2.92	20
Chromium	0.0100	U	0.0508	0.0516	102	103	5	75.0-125			1.52	20
Cobalt	0.0100	U	0.0475	0.0473	95.0	94.6	5	75.0-125			0.446	20
Potassium	1.00	33.6	38.4	39.5	95.9	119	5	75.0-125			2.92	20
Iron	1.00	1.65	6.33	6.56	93.6	98.3	5	75.0-125			3.69	20
Lead	0.0100	U	0.0453	0.0450	90.6	89.9	5	75.0-125			0.692	20
Manganese	0.0100	1.13	1.22	1.25	180	251	5	75.0-125	V	V	2.87	20
Nickel	0.0100	0.00735	0.0555	0.0569	96.3	99.1	5	75.0-125			2.43	20
Selenium	0.0100	U	0.0481	0.0540	96.2	108	5	75.0-125			11.6	20
Sodium	1.00	3030	3160	3290	2500	5120	5	75.0-125	V	V	4.05	20
Uranium	0.0100	U	0.0715	0.0723	143	145	5	75.0-125	J5	J5	1.12	20
Vanadium	0.0100	U	0.0484	0.0483	96.9	96.7	5	75.0-125			0.217	20

Method Blank (MB)

(MB) R3543113-3 06/25/20 19:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543113-4 06/25/20 19:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0506	101	80.0-120	
Barium	0.0500	0.0497	99.5	80.0-120	
Cadmium	0.0500	0.0496	99.2	80.0-120	
Calcium	5.00	4.96	99.2	80.0-120	
Chromium	0.0500	0.0523	105	80.0-120	
Cobalt	0.0500	0.0521	104	80.0-120	
Iron	5.00	5.12	102	80.0-120	
Lead	0.0500	0.0486	97.1	80.0-120	
Manganese	0.0500	0.0518	104	80.0-120	
Nickel	0.0500	0.0520	104	80.0-120	
Potassium	5.00	4.82	96.4	80.0-120	
Selenium	0.0500	0.0506	101	80.0-120	
Sodium	5.00	4.77	95.5	80.0-120	
Uranium	0.0500	0.0485	97.0	80.0-120	
Vanadium	0.0500	0.0501	100	80.0-120	

L1230685-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-14 06/25/20 19:31 • (MS) R3543113-6 06/25/20 19:38 • (MSD) R3543113-7 06/25/20 19:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00169	0.0498	0.0524	96.1	101	1	75.0-125			5.14	20
Barium	0.0500	0.00835	0.0602	0.0591	104	101	1	75.0-125			1.91	20
Cadmium	0.0500	U	0.0528	0.0512	106	102	1	75.0-125			3.19	20
Calcium	5.00	537	535	538	0.000	22.4	1	75.0-125	V	V	0.565	20
Chromium	0.0500	U	0.0495	0.0515	98.9	103	1	75.0-125			3.95	20
Cobalt	0.0500	U	0.0483	0.0499	96.7	99.7	1	75.0-125			3.13	20
Potassium	5.00	0.673	5.55	5.56	97.5	97.8	1	75.0-125			0.218	20
Iron	5.00	U	4.84	4.99	96.9	99.7	1	75.0-125			2.93	20
Lead	0.0500	U	0.0495	0.0506	99.0	101	1	75.0-125			2.12	20
Manganese	0.0500	U	0.0486	0.0502	97.2	100	1	75.0-125			3.18	20
Nickel	0.0500	U	0.0476	0.0497	95.2	99.4	1	75.0-125			4.31	20
Selenium	0.0500	0.00268	0.0596	0.0557	114	106	1	75.0-125			6.85	20
Sodium	5.00	130	135	135	89.4	86.8	1	75.0-125			0.0995	20
Uranium	0.0500	0.0275	0.0786	0.0793	102	104	1	75.0-125			0.845	20
Vanadium	0.0500	0.0129	0.0613	0.0637	96.8	102	1	75.0-125			3.84	20

Method Blank (MB)

(MB) R3542674-1 06/24/20 22:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	0.000747	J	0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3542887-1 06/25/20 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel	0.00102	J	0.000952	0.00200

Laboratory Control Sample (LCS)

(LCS) R3542674-2 06/24/20 22:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0485	96.9	80.0-120	
Barium	0.0500	0.0468	93.6	80.0-120	
Cadmium	0.0500	0.0503	101	80.0-120	
Calcium	5.00	5.05	101	80.0-120	
Chromium	0.0500	0.0497	99.4	80.0-120	
Cobalt	0.0500	0.0490	98.1	80.0-120	
Iron	5.00	5.10	102	80.0-120	
Lead	0.0500	0.0488	97.6	80.0-120	
Manganese	0.0500	0.0484	96.8	80.0-120	
Potassium	5.00	4.94	98.8	80.0-120	
Selenium	0.0500	0.0477	95.3	80.0-120	
Sodium	5.00	4.84	96.8	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542674-2 06/24/20 22:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	0.0500	0.0484	96.7	80.0-120	
Vanadium	0.0500	0.0490	97.9	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542887-2 06/25/20 12:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel	0.0500	0.0560	112	80.0-120	

L1230481-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230481-05 06/24/20 22:45 • (MS) R3542674-4 06/24/20 22:52 • (MSD) R3542674-5 06/24/20 22:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	U	0.0495	0.0493	99.1	98.6	1	75.0-125			0.513	20
Barium	0.0500	0.0126	0.0626	0.0621	100	99.0	1	75.0-125			0.922	20
Cadmium	0.0500	U	0.0499	0.0499	99.8	99.9	1	75.0-125			0.0948	20
Calcium	5.00	464	472	465	158	5.11	1	75.0-125	V	V	1.63	20
Chromium	0.0500	U	0.0493	0.0496	98.6	99.3	1	75.0-125			0.675	20
Cobalt	0.0500	U	0.0481	0.0489	96.3	97.8	1	75.0-125			1.59	20
Potassium	5.00	6.14	11.0	10.9	98.1	94.7	1	75.0-125			1.57	20
Iron	5.00	0.166	5.22	5.24	101	102	1	75.0-125			0.532	20
Lead	0.0500	U	0.0495	0.0486	99.0	97.2	1	75.0-125			1.87	20
Manganese	0.0500	0.218	0.261	0.264	85.9	90.5	1	75.0-125			0.885	20
Selenium	0.0500	U	0.0523	0.0492	105	98.4	1	75.0-125			6.09	20
Sodium	5.00	89.7	93.3	93.6	72.0	79.4	1	75.0-125	V		0.394	20
Uranium	0.0500	U	0.0589	0.0583	118	117	1	75.0-125			0.921	20
Vanadium	0.0500	U	0.0491	0.0496	98.2	99.2	1	75.0-125			1.07	20

L1230481-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230481-05 06/25/20 12:11 • (MS) R3542887-4 06/25/20 12:18 • (MSD) R3542887-5 06/25/20 12:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel	0.0500	0.00716	0.0574	0.0619	101	109	1	75.0-125			7.46	20

Method Blank (MB)

(MB) R3541605-1 06/22/20 21:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3541605-2 06/22/20 21:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0473	94.7	80.0-120	
Barium,Dissolved	0.0500	0.0480	96.0	80.0-120	
Cadmium,Dissolved	0.0500	0.0511	102	80.0-120	
Chromium,Dissolved	0.0500	0.0505	101	80.0-120	
Cobalt,Dissolved	0.0500	0.0498	99.7	80.0-120	
Iron,Dissolved	5.00	5.14	103	80.0-120	
Lead,Dissolved	0.0500	0.0465	93.1	80.0-120	
Manganese,Dissolved	0.0500	0.0489	97.7	80.0-120	
Nickel,Dissolved	0.0500	0.0507	101	80.0-120	
Selenium,Dissolved	0.0500	0.0496	99.2	80.0-120	
Uranium,Dissolved	0.0500	0.0478	95.7	80.0-120	
Vanadium,Dissolved	0.0500	0.0490	97.9	80.0-120	

L1230685-49 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-49 06/22/20 21:48 • (MS) R3541605-4 06/22/20 21:55 • (MSD) R3541605-5 06/22/20 21:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00285	0.0504	0.0508	95.1	95.9	1	75.0-125			0.763	20
Barium,Dissolved	0.0500	0.00796	0.0567	0.0545	97.5	93.0	1	75.0-125			4.03	20
Cadmium,Dissolved	0.0500	U	0.0505	0.0504	101	101	1	75.0-125			0.330	20

L1230685-49 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-49 06/22/20 21:48 • (MS) R3541605-4 06/22/20 21:55 • (MSD) R3541605-5 06/22/20 21:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0499	0.0496	99.9	99.3	1	75.0-125			0.595	20
Cobalt,Dissolved	0.0500	0.00241	0.0502	0.0503	95.5	95.7	1	75.0-125			0.167	20
Iron,Dissolved	5.00	U	4.87	5.05	97.3	101	1	75.0-125			3.64	20
Lead,Dissolved	0.0500	U	0.0491	0.0474	98.1	94.7	1	75.0-125			3.55	20
Manganese,Dissolved	0.0500	0.00841	0.0551	0.0554	93.4	94.0	1	75.0-125			0.555	20
Nickel,Dissolved	0.0500	0.00474	0.0525	0.0528	95.4	96.1	1	75.0-125			0.583	20
Selenium,Dissolved	0.0500	0.00674	0.0580	0.0574	103	101	1	75.0-125			1.06	20
Uranium,Dissolved	0.0500	0.0284	0.0804	0.0775	104	98.3	1	75.0-125			3.59	20
Vanadium,Dissolved	0.0500	0.0139	0.0628	0.0629	97.9	98.1	1	75.0-125			0.200	20

Method Blank (MB)

(MB) R3542486-1 06/24/20 12:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Calcium	U		0.480	1.00
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00

Method Blank (MB)

(MB) R3542487-1 06/24/20 14:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chromium	U		0.00149	0.00200

Laboratory Control Sample (LCS)

(LCS) R3542486-2 06/24/20 12:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0454	90.9	80.0-120	
Barium	0.0500	0.0432	86.3	80.0-120	
Calcium	5.00	4.69	93.8	80.0-120	
Iron	5.00	4.23	84.5	80.0-120	
Lead	0.0500	0.0467	93.3	80.0-120	
Manganese	0.0500	0.0435	87.0	80.0-120	
Potassium	5.00	4.75	95.0	80.0-120	
Selenium	0.0500	0.0454	90.9	80.0-120	
Sodium	5.00	4.87	97.4	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542487-2 06/24/20 14:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chromium	0.0500	0.0465	92.9	80.0-120	

L1230821-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230821-06 06/24/20 12:25 • (MS) R3542486-4 06/24/20 12:32 • (MSD) R3542486-5 06/24/20 12:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00982	0.0583	0.0608	96.9	102	1	75.0-125			4.25	20
Barium	0.0500	0.0447	0.0924	0.0917	95.3	94.0	1	75.0-125			0.712	20
Calcium	5.00	15.5	19.8	20.7	86.2	103	1	75.0-125			4.16	20
Potassium	5.00	1.78	6.08	6.24	85.8	89.1	1	75.0-125			2.70	20
Iron	5.00	0.176	4.73	4.93	91.0	95.2	1	75.0-125			4.29	20
Lead	0.0500	U	0.0499	0.0501	99.9	100	1	75.0-125			0.256	20
Manganese	0.0500	0.377	0.428	0.445	102	136	1	75.0-125		V	3.90	20
Selenium	0.0500	U	0.0462	0.0481	92.4	96.2	1	75.0-125			4.10	20
Sodium	5.00	232	236	242	64.4	191	1	75.0-125	V	V	2.65	20

L1230821-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230821-06 06/24/20 14:45 • (MS) R3542487-4 06/24/20 14:52 • (MSD) R3542487-5 06/24/20 14:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium	0.0500	U	0.0462	0.0454	92.4	90.7	1	75.0-125			1.87	20

Method Blank (MB)

(MB) R3542955-2 06/21/20 23:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542955-1 06/21/20 22:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.33	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

L1230685-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230685-16 06/22/20 08:45 • (MS) R3542955-3 06/22/20 09:26 • (MSD) R3542955-4 06/22/20 09:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	55.0	5.15	59.2	60.7	98.3	101	10	10.0-160			2.50	22
(S) a,a,a-Trifluorotoluene(FID)					*100*	*103*		*78.0-120*				

Method Blank (MB)

(MB) R3541870-3 06/22/20 14:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3541870-1 06/22/20 13:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.17	112	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*78.0-120*	

Method Blank (MB)

(MB) R3542457-3 06/24/20 11:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.0*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542457-1 06/24/20 10:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.57	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3542784-2 06/23/20 18:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0321	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542784-1 06/23/20 17:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.96	90.2	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*96.6*	*78.0-120*	

Method Blank (MB)

(MB) R3542415-3 06/24/20 11:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542415-2 06/24/20 11:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.78	105	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*98.4*	*78.0-120*	

L1230821-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230821-06 06/24/20 16:33 • (MS) R3542415-4 06/25/20 03:32 • (MSD) R3542415-5 06/25/20 03:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	55.0	2.41	58.0	64.8	101	113	10	10.0-160			11.1	22
(S) a,a,a-Trifluorotoluene(FID)					*100*	*104*		*78.0-120*				

L1230823-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230823-08 06/25/20 02:30 • (MS) R3542415-6 06/25/20 04:13 • (MSD) R3542415-7 06/25/20 04:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.725	7.50	7.75	123	128	1	10.0-160			3.28	22
(S) a,a,a-Trifluorotoluene(FID)					*104*	*106*		*78.0-120*				

Method Blank (MB)

(MB) R3543000-2 06/21/20 13:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543000-2 06/21/20 13:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*108*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543000-1 06/21/20 11:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0216	86.4	19.0-160	
Benzene	0.00500	0.00499	99.8	70.0-123	
Bromodichloromethane	0.00500	0.00467	93.4	75.0-120	
Bromoform	0.00500	0.00471	94.2	68.0-132	
Bromomethane	0.00500	0.00417	83.4	10.0-160	
n-Butylbenzene	0.00500	0.00445	89.0	73.0-125	
sec-Butylbenzene	0.00500	0.00497	99.4	75.0-125	
Carbon disulfide	0.00500	0.00477	95.4	61.0-128	
Carbon tetrachloride	0.00500	0.00587	117	68.0-126	
Chlorobenzene	0.00500	0.00399	79.8	80.0-121	J4
Chlorodibromomethane	0.00500	0.00451	90.2	77.0-125	
Chloroethane	0.00500	0.00384	76.8	47.0-150	
Chloroform	0.00500	0.00487	97.4	73.0-120	
Chloromethane	0.00500	0.00389	77.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00558	112	80.0-122	
1,1-Dichloroethane	0.00500	0.00462	92.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00380	76.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00593	119	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00446	89.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00554	111	73.0-120	
1,2-Dichloropropane	0.00500	0.00477	95.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00635	127	80.0-123	J4
trans-1,3-Dichloropropene	0.00500	0.00541	108	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543000-1 06/21/20 11:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00493	98.6	79.0-123	
2-Hexanone	0.0250	0.0230	92.0	67.0-149	
Isopropylbenzene	0.00500	0.00617	123	76.0-127	
p-Isopropyltoluene	0.00500	0.00461	92.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0263	105	44.0-160	
Methylene Chloride	0.00500	0.00429	85.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0258	103	68.0-142	
Methyl tert-butyl ether	0.00500	0.00422	84.4	68.0-125	
Naphthalene	0.00500	0.00399	79.8	54.0-135	
n-Propylbenzene	0.00500	0.00520	104	77.0-124	
Styrene	0.00500	0.00596	119	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00502	100	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00472	94.4	65.0-130	
Tetrachloroethene	0.00500	0.00479	95.8	72.0-132	
Toluene	0.00500	0.00417	83.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00559	112	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00425	85.0	80.0-120	
Trichloroethene	0.00500	0.00680	136	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00591	118	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00449	89.8	76.0-122	
Vinyl chloride	0.00500	0.00406	81.2	67.0-131	
Xylenes, Total	0.0150	0.0158	105	79.0-123	
o-Xylene	0.00500	0.00461	92.2	80.0-122	
m&p-Xylenes	0.0100	0.0112	112	80.0-122	
(S) Toluene-d8			*100*	*80.0-120*	
(S) 4-Bromofluorobenzene			*108*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*102*	*70.0-130*	

Method Blank (MB)

(MB) R3542570-2 06/21/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542570-2 06/21/20 15:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542570-1 06/21/20 14:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0362	145	19.0-160	
Benzene	0.00500	0.00507	101	70.0-123	
Bromodichloromethane	0.00500	0.00490	98.0	75.0-120	
Bromoform	0.00500	0.00415	83.0	68.0-132	
Bromomethane	0.00500	0.00456	91.2	10.0-160	
n-Butylbenzene	0.00500	0.00424	84.8	73.0-125	
sec-Butylbenzene	0.00500	0.00436	87.2	75.0-125	
Carbon disulfide	0.00500	0.00441	88.2	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00492	98.4	80.0-121	
Chlorodibromomethane	0.00500	0.00467	93.4	77.0-125	
Chloroethane	0.00500	0.00499	99.8	47.0-150	
Chloroform	0.00500	0.00491	98.2	73.0-120	
Chloromethane	0.00500	0.00586	117	41.0-142	
1,2-Dibromoethane	0.00500	0.00500	100	80.0-122	
1,1-Dichloroethane	0.00500	0.00584	117	70.0-126	
1,2-Dichloroethane	0.00500	0.00557	111	70.0-128	
1,1-Dichloroethene	0.00500	0.00466	93.2	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00491	98.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00470	94.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00588	118	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00501	100	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00464	92.8	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3542570-1 06/21/20 14:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00453	90.6	79.0-123	
2-Hexanone	0.0250	0.0320	128	67.0-149	
Isopropylbenzene	0.00500	0.00413	82.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00442	88.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0373	149	44.0-160	
Methylene Chloride	0.00500	0.00498	99.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0326	130	68.0-142	
Methyl tert-butyl ether	0.00500	0.00510	102	68.0-125	
Naphthalene	0.00500	0.00532	106	54.0-135	
n-Propylbenzene	0.00500	0.00447	89.4	77.0-124	
Styrene	0.00500	0.00459	91.8	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00473	94.6	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00514	103	65.0-130	
Tetrachloroethene	0.00500	0.00421	84.2	72.0-132	
Toluene	0.00500	0.00471	94.2	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00465	93.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00496	99.2	80.0-120	
Trichloroethene	0.00500	0.00539	108	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00428	85.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00431	86.2	76.0-122	
Vinyl chloride	0.00500	0.00514	103	67.0-131	
Xylenes, Total	0.0150	0.0135	90.0	79.0-123	
o-Xylene	0.00500	0.00445	89.0	80.0-122	
m&p-Xylenes	0.0100	0.00900	90.0	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*100*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*110*	*70.0-130*	

Method Blank (MB)

(MB) R3542546-2 06/22/20 01:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542546-2 06/22/20 01:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542546-1 06/22/20 00:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0334	134	19.0-160	
Benzene	0.00500	0.00484	96.8	70.0-123	
Bromodichloromethane	0.00500	0.00475	95.0	75.0-120	
Bromoform	0.00500	0.00406	81.2	68.0-132	
Bromomethane	0.00500	0.00425	85.0	10.0-160	
n-Butylbenzene	0.00500	0.00415	83.0	73.0-125	
sec-Butylbenzene	0.00500	0.00431	86.2	75.0-125	
Carbon disulfide	0.00500	0.00424	84.8	61.0-128	
Carbon tetrachloride	0.00500	0.00445	89.0	68.0-126	
Chlorobenzene	0.00500	0.00495	99.0	80.0-121	
Chlorodibromomethane	0.00500	0.00458	91.6	77.0-125	
Chloroethane	0.00500	0.00471	94.2	47.0-150	
Chloroform	0.00500	0.00465	93.0	73.0-120	
Chloromethane	0.00500	0.00565	113	41.0-142	
1,2-Dibromoethane	0.00500	0.00490	98.0	80.0-122	
1,1-Dichloroethane	0.00500	0.00563	113	70.0-126	
1,2-Dichloroethane	0.00500	0.00542	108	70.0-128	
1,1-Dichloroethene	0.00500	0.00462	92.4	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00475	95.0	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00465	93.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00569	114	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00481	96.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00457	91.4	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3542546-1 06/22/20 00:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00437	87.4	79.0-123	
2-Hexanone	0.0250	0.0306	122	67.0-149	
Isopropylbenzene	0.00500	0.00415	83.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00440	88.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0354	142	44.0-160	
Methylene Chloride	0.00500	0.00471	94.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0313	125	68.0-142	
Methyl tert-butyl ether	0.00500	0.00512	102	68.0-125	
Naphthalene	0.00500	0.00515	103	54.0-135	
n-Propylbenzene	0.00500	0.00445	89.0	77.0-124	
Styrene	0.00500	0.00450	90.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00465	93.0	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00476	95.2	65.0-130	
Tetrachloroethene	0.00500	0.00406	81.2	72.0-132	
Toluene	0.00500	0.00460	92.0	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00463	92.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00480	96.0	80.0-120	
Trichloroethene	0.00500	0.00540	108	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00433	86.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00439	87.8	76.0-122	
Vinyl chloride	0.00500	0.00502	100	67.0-131	
Xylenes, Total	0.0150	0.0133	88.7	79.0-123	
o-Xylene	0.00500	0.00454	90.8	80.0-122	
m&p-Xylenes	0.0100	0.00877	87.7	80.0-122	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*110*	*70.0-130*	

Method Blank (MB)

(MB) R3542514-3 06/23/20 02:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542514-3 06/23/20 02:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542514-1 06/23/20 01:28 • (LCSD) R3542514-2 06/23/20 01:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0260	0.0292	104	117	19.0-160			11.6	27
Benzene	0.00500	0.00435	0.00469	87.0	93.8	70.0-123			7.52	20
Bromodichloromethane	0.00500	0.00413	0.00435	82.6	87.0	75.0-120			5.19	20
Bromoform	0.00500	0.00364	0.00380	72.8	76.0	68.0-132			4.30	20
Bromomethane	0.00500	0.00364	0.00384	72.8	76.8	10.0-160			5.35	25
n-Butylbenzene	0.00500	0.00405	0.00446	81.0	89.2	73.0-125			9.64	20
sec-Butylbenzene	0.00500	0.00431	0.00471	86.2	94.2	75.0-125			8.87	20
Carbon disulfide	0.00500	0.00354	0.00387	70.8	77.4	61.0-128			8.91	20
Carbon tetrachloride	0.00500	0.00421	0.00453	84.2	90.6	68.0-126			7.32	20
Chlorobenzene	0.00500	0.00447	0.00486	89.4	97.2	80.0-121			8.36	20
Chlorodibromomethane	0.00500	0.00411	0.00439	82.2	87.8	77.0-125			6.59	20
Chloroethane	0.00500	0.00413	0.00433	82.6	86.6	47.0-150			4.73	20
Chloroform	0.00500	0.00420	0.00441	84.0	88.2	73.0-120			4.88	20
Chloromethane	0.00500	0.00472	0.00510	94.4	102	41.0-142			7.74	20
1,2-Dibromoethane	0.00500	0.00433	0.00446	86.6	89.2	80.0-122			2.96	20
1,1-Dichloroethane	0.00500	0.00507	0.00532	101	106	70.0-126			4.81	20
1,2-Dichloroethane	0.00500	0.00443	0.00458	88.6	91.6	70.0-128			3.33	20
1,1-Dichloroethene	0.00500	0.00431	0.00460	86.2	92.0	71.0-124			6.51	20
cis-1,2-Dichloroethene	0.00500	0.00409	0.00449	81.8	89.8	73.0-120			9.32	20
trans-1,2-Dichloroethene	0.00500	0.00413	0.00435	82.6	87.0	73.0-120			5.19	20
1,2-Dichloropropane	0.00500	0.00511	0.00524	102	105	77.0-125			2.51	20
cis-1,3-Dichloropropene	0.00500	0.00432	0.00448	86.4	89.6	80.0-123			3.64	20
trans-1,3-Dichloropropene	0.00500	0.00414	0.00440	82.8	88.0	78.0-124			6.09	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542514-1 06/23/20 01:28 • (LCSD) R3542514-2 06/23/20 01:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00424	0.00465	84.8	93.0	79.0-123			9.22	20
2-Hexanone	0.0250	0.0264	0.0270	106	108	67.0-149			2.25	20
Isopropylbenzene	0.00500	0.00408	0.00437	81.6	87.4	76.0-127			6.86	20
p-Isopropyltoluene	0.00500	0.00427	0.00463	85.4	92.6	76.0-125			8.09	20
2-Butanone (MEK)	0.0250	0.0294	0.0299	118	120	44.0-160			1.69	20
Methylene Chloride	0.00500	0.00417	0.00439	83.4	87.8	67.0-120			5.14	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0256	0.0268	102	107	68.0-142			4.58	20
Methyl tert-butyl ether	0.00500	0.00437	0.00437	87.4	87.4	68.0-125			0.000	20
Naphthalene	0.00500	0.00370	0.00435	74.0	87.0	54.0-135			16.1	20
n-Propylbenzene	0.00500	0.00460	0.00483	92.0	96.6	77.0-124			4.88	20
Styrene	0.00500	0.00420	0.00447	84.0	89.4	73.0-130			6.23	20
1,1,1,2-Tetrachloroethane	0.00500	0.00428	0.00467	85.6	93.4	75.0-125			8.72	20
1,1,2,2-Tetrachloroethane	0.00500	0.00458	0.00455	91.6	91.0	65.0-130			0.657	20
Tetrachloroethene	0.00500	0.00396	0.00436	79.2	87.2	72.0-132			9.62	20
Toluene	0.00500	0.00433	0.00466	86.6	93.2	79.0-120			7.34	20
1,1,1-Trichloroethane	0.00500	0.00436	0.00464	87.2	92.8	73.0-124			6.22	20
1,1,2-Trichloroethane	0.00500	0.00437	0.00452	87.4	90.4	80.0-120			3.37	20
Trichloroethene	0.00500	0.00464	0.00505	92.8	101	78.0-124			8.46	20
1,2,4-Trimethylbenzene	0.00500	0.00473	0.00481	94.6	96.2	76.0-121			1.68	20
1,3,5-Trimethylbenzene	0.00500	0.00442	0.00467	88.4	93.4	76.0-122			5.50	20
Vinyl chloride	0.00500	0.00462	0.00492	92.4	98.4	67.0-131			6.29	20
Xylenes, Total	0.0150	0.0128	0.0138	85.3	92.0	79.0-123			7.52	20
o-Xylene	0.00500	0.00428	0.00462	85.6	92.4	80.0-122			7.64	20
m&p-Xylenes	0.0100	0.00854	0.00921	85.4	92.1	80.0-122			7.55	20
(S) Toluene-d8				*105*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.4*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*106*	*106*	*70.0-130*				

Method Blank (MB)

(MB) R3542960-3 06/24/20 13:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542960-3 06/24/20 13:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542960-1 06/24/20 11:17 • (LCSD) R3542960-2 06/24/20 11:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0307	0.0291	123	116	19.0-160			5.35	27
Benzene	0.00500	0.00528	0.00530	106	106	70.0-123			0.378	20
Bromodichloromethane	0.00500	0.00519	0.00524	104	105	75.0-120			0.959	20
Bromoform	0.00500	0.00595	0.00596	119	119	68.0-132			0.168	20
Bromomethane	0.00500	0.00575	0.00565	115	113	10.0-160			1.75	25
n-Butylbenzene	0.00500	0.00456	0.00478	91.2	95.6	73.0-125			4.71	20
sec-Butylbenzene	0.00500	0.00460	0.00484	92.0	96.8	75.0-125			5.08	20
Carbon disulfide	0.00500	0.00543	0.00547	109	109	61.0-128			0.734	20
Carbon tetrachloride	0.00500	0.00523	0.00522	105	104	68.0-126			0.191	20
Chlorobenzene	0.00500	0.00619	0.00634	124	127	80.0-121	J4	J4	2.39	20
Chlorodibromomethane	0.00500	0.00592	0.00607	118	121	77.0-125			2.50	20
Chloroethane	0.00500	0.00508	0.00474	102	94.8	47.0-150			6.92	20
Chloroform	0.00500	0.00527	0.00510	105	102	73.0-120			3.28	20
Chloromethane	0.00500	0.00534	0.00530	107	106	41.0-142			0.752	20
1,2-Dibromoethane	0.00500	0.00563	0.00584	113	117	80.0-122			3.66	20
1,1-Dichloroethane	0.00500	0.00494	0.00497	98.8	99.4	70.0-126			0.605	20
1,2-Dichloroethane	0.00500	0.00515	0.00527	103	105	70.0-128			2.30	20
1,1-Dichloroethene	0.00500	0.00544	0.00537	109	107	71.0-124			1.30	20
cis-1,2-Dichloroethene	0.00500	0.00549	0.00537	110	107	73.0-120			2.21	20
trans-1,2-Dichloroethene	0.00500	0.00559	0.00531	112	106	73.0-120			5.14	20
1,2-Dichloropropane	0.00500	0.00472	0.00461	94.4	92.2	77.0-125			2.36	20
cis-1,3-Dichloropropene	0.00500	0.00493	0.00495	98.6	99.0	80.0-123			0.405	20
trans-1,3-Dichloropropene	0.00500	0.00507	0.00525	101	105	78.0-124			3.49	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542960-1 06/24/20 11:17 • (LCSD) R3542960-2 06/24/20 11:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00557	0.00580	111	116	79.0-123			4.05	20
2-Hexanone	0.0250	0.0260	0.0259	104	104	67.0-149			0.385	20
Isopropylbenzene	0.00500	0.00592	0.00600	118	120	76.0-127			1.34	20
p-Isopropyltoluene	0.00500	0.00455	0.00493	91.0	98.6	76.0-125			8.02	20
2-Butanone (MEK)	0.0250	0.0273	0.0269	109	108	44.0-160			1.48	20
Methylene Chloride	0.00500	0.00472	0.00471	94.4	94.2	67.0-120			0.212	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0272	0.0276	109	110	68.0-142			1.46	20
Methyl tert-butyl ether	0.00500	0.00474	0.00466	94.8	93.2	68.0-125			1.70	20
Naphthalene	0.00500	0.00478	0.00510	95.6	102	54.0-135			6.48	20
n-Propylbenzene	0.00500	0.00452	0.00471	90.4	94.2	77.0-124			4.12	20
Styrene	0.00500	0.00582	0.00593	116	119	73.0-130			1.87	20
1,1,1,2-Tetrachloroethane	0.00500	0.00583	0.00613	117	123	75.0-125			5.02	20
1,1,2,2-Tetrachloroethane	0.00500	0.00439	0.00449	87.8	89.8	65.0-130			2.25	20
Tetrachloroethene	0.00500	0.00641	0.00664	128	133	72.0-132		J4	3.52	20
Toluene	0.00500	0.00546	0.00547	109	109	79.0-120			0.183	20
1,1,1-Trichloroethane	0.00500	0.00549	0.00541	110	108	73.0-124			1.47	20
1,1,2-Trichloroethane	0.00500	0.00587	0.00604	117	121	80.0-120		J4	2.85	20
Trichloroethene	0.00500	0.00613	0.00646	123	129	78.0-124		J4	5.24	20
1,2,4-Trimethylbenzene	0.00500	0.00422	0.00437	84.4	87.4	76.0-121			3.49	20
1,3,5-Trimethylbenzene	0.00500	0.00455	0.00470	91.0	94.0	76.0-122			3.24	20
Vinyl chloride	0.00500	0.00514	0.00512	103	102	67.0-131			0.390	20
Xylenes, Total	0.0150	0.0166	0.0170	111	113	79.0-123			2.38	20
o-Xylene	0.00500	0.00539	0.00565	108	113	80.0-122			4.71	20
m&p-Xylenes	0.0100	0.0112	0.0114	112	114	80.0-122			1.77	20
(S) Toluene-d8				*107*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*105*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*102*	*100*	*70.0-130*				

Method Blank (MB)

(MB) R3543547-2 06/25/20 11:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543547-2 06/25/20 11:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543547-1 06/25/20 10:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0303	121	19.0-160	
Benzene	0.00500	0.00515	103	70.0-123	
Bromodichloromethane	0.00500	0.00538	108	75.0-120	
Bromoform	0.00500	0.00470	94.0	68.0-132	
Bromomethane	0.00500	0.000880	17.6	10.0-160	
n-Butylbenzene	0.00500	0.00495	99.0	73.0-125	
sec-Butylbenzene	0.00500	0.00475	95.0	75.0-125	
Carbon disulfide	0.00500	0.00520	104	61.0-128	
Carbon tetrachloride	0.00500	0.00523	105	68.0-126	
Chlorobenzene	0.00500	0.00469	93.8	80.0-121	
Chlorodibromomethane	0.00500	0.00500	100	77.0-125	
Chloroethane	0.00500	0.00658	132	47.0-150	
Chloroform	0.00500	0.00512	102	73.0-120	
Chloromethane	0.00500	0.00371	74.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00492	98.4	80.0-122	
1,1-Dichloroethane	0.00500	0.00526	105	70.0-126	
1,2-Dichloroethane	0.00500	0.00544	109	70.0-128	
1,1-Dichloroethene	0.00500	0.00464	92.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00520	104	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00509	102	73.0-120	
1,2-Dichloropropane	0.00500	0.00500	100	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00529	106	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00466	93.2	78.0-124	

Received by OCD: 6/23/2021 4:05:29 PM

Volatile Organic Compounds (GC/MS) by Method 8260B

L1230685-35,40

Laboratory Control Sample (LCS)

(LCS) R3543547-1 06/25/20 10:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00483	96.6	79.0-123	
2-Hexanone	0.0250	0.0213	85.2	67.0-149	
Isopropylbenzene	0.00500	0.00456	91.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00465	93.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0230	92.0	44.0-160	
Methylene Chloride	0.00500	0.00515	103	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0247	98.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00528	106	68.0-125	
Naphthalene	0.00500	0.00408	81.6	54.0-135	
n-Propylbenzene	0.00500	0.00502	100	77.0-124	
Styrene	0.00500	0.00437	87.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00488	97.6	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00505	101	65.0-130	
Tetrachloroethene	0.00500	0.00464	92.8	72.0-132	
Toluene	0.00500	0.00452	90.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00535	107	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00472	94.4	80.0-120	
Trichloroethene	0.00500	0.00509	102	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00475	95.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00497	99.4	76.0-122	
Vinyl chloride	0.00500	0.00497	99.4	67.0-131	
Xylenes, Total	0.0150	0.0141	94.0	79.0-123	
o-Xylene	0.00500	0.00464	92.8	80.0-122	
m&p-Xylenes	0.0100	0.00949	94.9	80.0-122	
(S) Toluene-d8			*98.3*	*80.0-120*	
(S) 4-Bromofluorobenzene			*93.0*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3543250-3 06/25/20 15:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543250-3 06/25/20 15:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543250-1 06/25/20 14:34 • (LCSD) R3543250-2 06/25/20 14:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0257	0.0264	103	106	19.0-160			2.69	27
Benzene	0.00500	0.00450	0.00445	90.0	89.0	70.0-123			1.12	20
Bromodichloromethane	0.00500	0.00469	0.00459	93.8	91.8	75.0-120			2.16	20
Bromoform	0.00500	0.00499	0.00486	99.8	97.2	68.0-132			2.64	20
Bromomethane	0.00500	0.00536	0.00530	107	106	10.0-160			1.13	25
n-Butylbenzene	0.00500	0.00379	0.00378	75.8	75.6	73.0-125			0.264	20
sec-Butylbenzene	0.00500	0.00407	0.00398	81.4	79.6	75.0-125			2.24	20
Carbon disulfide	0.00500	0.00404	0.00387	80.8	77.4	61.0-128			4.30	20
Carbon tetrachloride	0.00500	0.00496	0.00452	99.2	90.4	68.0-126			9.28	20
Chlorobenzene	0.00500	0.00526	0.00506	105	101	80.0-121			3.88	20
Chlorodibromomethane	0.00500	0.00544	0.00529	109	106	77.0-125			2.80	20
Chloroethane	0.00500	0.00484	0.00469	96.8	93.8	47.0-150			3.15	20
Chloroform	0.00500	0.00439	0.00431	87.8	86.2	73.0-120			1.84	20
Chloromethane	0.00500	0.00449	0.00439	89.8	87.8	41.0-142			2.25	20
1,2-Dibromoethane	0.00500	0.00537	0.00516	107	103	80.0-122			3.99	20
1,1-Dichloroethane	0.00500	0.00482	0.00461	96.4	92.2	70.0-126			4.45	20
1,2-Dichloroethane	0.00500	0.00501	0.00480	100	96.0	70.0-128			4.28	20
1,1-Dichloroethene	0.00500	0.00478	0.00465	95.6	93.0	71.0-124			2.76	20
cis-1,2-Dichloroethene	0.00500	0.00501	0.00499	100	99.8	73.0-120			0.400	20
trans-1,2-Dichloroethene	0.00500	0.00478	0.00468	95.6	93.6	73.0-120			2.11	20
1,2-Dichloropropane	0.00500	0.00476	0.00469	95.2	93.8	77.0-125			1.48	20
cis-1,3-Dichloropropene	0.00500	0.00447	0.00438	89.4	87.6	80.0-123			2.03	20
trans-1,3-Dichloropropene	0.00500	0.00453	0.00434	90.6	86.8	78.0-124			4.28	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543250-1 06/25/20 14:34 • (LCSD) R3543250-2 06/25/20 14:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00491	0.00463	98.2	92.6	79.0-123			5.87	20
2-Hexanone	0.0250	0.0222	0.0215	88.8	86.0	67.0-149			3.20	20
Isopropylbenzene	0.00500	0.00458	0.00446	91.6	89.2	76.0-127			2.65	20
p-Isopropyltoluene	0.00500	0.00421	0.00427	84.2	85.4	76.0-125			1.42	20
2-Butanone (MEK)	0.0250	0.0229	0.0239	91.6	95.6	44.0-160			4.27	20
Methylene Chloride	0.00500	0.00400	0.00369	80.0	73.8	67.0-120			8.06	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0247	0.0244	98.8	97.6	68.0-142			1.22	20
Methyl tert-butyl ether	0.00500	0.00340	0.00364	68.0	72.8	68.0-125			6.82	20
Naphthalene	0.00500	0.00414	0.00416	82.8	83.2	54.0-135			0.482	20
n-Propylbenzene	0.00500	0.00399	0.00391	79.8	78.2	77.0-124			2.03	20
Styrene	0.00500	0.00471	0.00449	94.2	89.8	73.0-130			4.78	20
1,1,1,2-Tetrachloroethane	0.00500	0.00555	0.00521	111	104	75.0-125			6.32	20
1,1,2,2-Tetrachloroethane	0.00500	0.00418	0.00420	83.6	84.0	65.0-130			0.477	20
Tetrachloroethene	0.00500	0.00549	0.00519	110	104	72.0-132			5.62	20
Toluene	0.00500	0.00461	0.00453	92.2	90.6	79.0-120			1.75	20
1,1,1-Trichloroethane	0.00500	0.00456	0.00461	91.2	92.2	73.0-124			1.09	20
1,1,2-Trichloroethane	0.00500	0.00513	0.00509	103	102	80.0-120			0.783	20
Trichloroethene	0.00500	0.00550	0.00515	110	103	78.0-124			6.57	20
1,2,4-Trimethylbenzene	0.00500	0.00401	0.00386	80.2	77.2	76.0-121			3.81	20
1,3,5-Trimethylbenzene	0.00500	0.00403	0.00395	80.6	79.0	76.0-122			2.01	20
Vinyl chloride	0.00500	0.00480	0.00459	96.0	91.8	67.0-131			4.47	20
Xylenes, Total	0.0150	0.0147	0.0144	98.0	96.0	79.0-123			2.06	20
o-Xylene	0.00500	0.00475	0.00458	95.0	91.6	80.0-122			3.64	20
m&p-Xylenes	0.0100	0.00996	0.00980	99.6	98.0	80.0-122			1.62	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*95.4*	*94.3*	*70.0-130*				

Method Blank (MB)

(MB) R3540840-1 06/19/20 15:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*146*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3540840-2 06/19/20 16:20 • (LCSD) R3540840-3 06/19/20 16:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.60	1.49	107	99.3	50.0-150			7.12	20
(S) o-Terphenyl				*109*	*100*	*31.0-160*				

Method Blank (MB)

(MB) R3541749-1 06/22/20 23:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*87.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3541749-2 06/23/20 00:06 • (LCSD) R3541749-3 06/23/20 00:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.55	1.53	103	102	50.0-150			1.30	20
(S) o-Terphenyl				*105*	*103*	*31.0-160*				

Method Blank (MB)

(MB) R3542360-1 06/24/20 01:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*89.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542360-2 06/24/20 02:16 • (LCSD) R3542360-3 06/24/20 02:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.69	1.69	113	113	50.0-150			0.000	20
(S) o-Terphenyl				*105*	*103*	*31.0-160*				

Method Blank (MB)

(MB) R3543172-1 06/25/20 14:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*76.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543172-2 06/25/20 15:00 • (LCSD) R3543172-3 06/25/20 15:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.70	1.69	113	113	50.0-150			0.590	20
(S) o-Terphenyl				*103*	*105*	*31.0-160*				

Method Blank (MB)

(MB) R3542249-2 06/23/20 14:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzaldehyde	U		0.00169	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
4-Chloroaniline	U		0.000234	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	0.000349	J	0.000159	0.00100
2-Nitroaniline	U		0.000102	0.0100
3-Nitroaniline	U		0.0000869	0.0100

Method Blank (MB)

(MB) R3542249-2 06/23/20 14:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Nitroaniline	U		0.0000910	0.0100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) Nitrobenzene-d5	*65.6*			*10.0-127*
(S) 2-Fluorobiphenyl	*75.5*			*10.0-130*
(S) p-Terphenyl-d14	*85.2*			*10.0-128*
(S) Phenol-d5	*29.0*			*10.0-120*
(S) 2-Fluorophenol	*44.9*			*10.0-120*
(S) 2,4,6-Tribromophenol	*83.5*			*10.0-155*

Laboratory Control Sample (LCS)

(LCS) R3542249-1 06/23/20 13:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0386	77.2	41.0-120	
Acenaphthylene	0.0500	0.0429	85.8	43.0-120	
Acetophenone	0.0500	0.0394	78.8	29.0-120	
Anthracene	0.0500	0.0423	84.6	45.0-120	
Atrazine	0.0500	0.0424	84.8	39.0-141	
Benzaldehyde	0.0500	0.104	208	10.0-160	J4
Benzo(a)anthracene	0.0500	0.0435	87.0	47.0-120	
Benzo(b)fluoranthene	0.0500	0.0436	87.2	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0420	84.0	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0411	82.2	48.0-121	
Benzo(a)pyrene	0.0500	0.0449	89.8	47.0-120	
Biphenyl	0.0500	0.0418	83.6	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0340	68.0	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0357	71.4	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0350	70.0	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0457	91.4	45.0-120	
Caprolactam	0.0500	0.00991	19.8	10.0-120	
Carbazole	0.0500	0.0415	83.0	51.0-122	
4-Chloroaniline	0.0500	0.0260	52.0	25.0-120	
2-Chloronaphthalene	0.0500	0.0394	78.8	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0423	84.6	44.0-120	
Chrysene	0.0500	0.0401	80.2	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0391	78.2	47.0-120	
Dibenzofuran	0.0500	0.0414	82.8	44.0-120	
3,3-Dichlorobenzidine	0.100	0.0888	88.8	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0415	83.0	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0411	82.2	46.0-120	
Fluoranthene	0.0500	0.0414	82.8	51.0-120	
Fluorene	0.0500	0.0394	78.8	47.0-120	
Hexachlorobenzene	0.0500	0.0442	88.4	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0361	72.2	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0386	77.2	15.0-120	
Hexachloroethane	0.0500	0.0340	68.0	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0422	84.4	49.0-122	
Isophorone	0.0500	0.0336	67.2	36.0-120	
1-Methylnaphthalene	0.0500	0.0324	64.8	33.0-120	
2-Methylnaphthalene	0.0500	0.0321	64.2	33.0-120	
Naphthalene	0.0500	0.0337	67.4	27.0-120	
2-Nitroaniline	0.0500	0.0417	83.4	43.0-120	
3-Nitroaniline	0.0500	0.0359	71.8	38.0-120	

Laboratory Control Sample (LCS)

(LCS) R3542249-1 06/23/20 13:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Nitroaniline	0.0500	0.0381	76.2	18.0-160	
Nitrobenzene	0.0500	0.0317	63.4	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0420	84.0	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0353	70.6	31.0-120	
Phenanthrene	0.0500	0.0443	88.6	46.0-120	
Benzylbutyl phthalate	0.0500	0.0456	91.2	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0462	92.4	43.0-122	
Di-n-butyl phthalate	0.0500	0.0443	88.6	49.0-121	
Diethyl phthalate	0.0500	0.0409	81.8	48.0-122	
Dimethyl phthalate	0.0500	0.0411	82.2	48.0-120	
Di-n-octyl phthalate	0.0500	0.0417	83.4	42.0-125	
Pyrene	0.0500	0.0432	86.4	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0333	66.6	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0331	66.2	40.0-120	
2-Chlorophenol	0.0500	0.0333	66.6	25.0-120	
2-Methylphenol	0.0500	0.0345	69.0	28.0-120	
3&4-Methyl Phenol	0.0500	0.0330	66.0	31.0-120	
2,4-Dichlorophenol	0.0500	0.0346	69.2	36.0-120	
2,4-Dimethylphenol	0.0500	0.0352	70.4	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0406	81.2	38.0-138	
2,4-Dinitrophenol	0.0500	0.0389	77.8	10.0-120	
2-Nitrophenol	0.0500	0.0342	68.4	31.0-120	
4-Nitrophenol	0.0500	0.0172	34.4	10.0-120	
Pentachlorophenol	0.0500	0.0408	81.6	23.0-120	
Phenol	0.0500	0.0144	28.8	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0441	88.2	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0404	80.8	42.0-120	
(S) Nitrobenzene-d5			*61.7*	*10.0-127*	
(S) 2-Fluorobiphenyl			*83.1*	*10.0-130*	
(S) p-Terphenyl-d14			*89.0*	*10.0-128*	
(S) Phenol-d5			*29.5*	*10.0-120*	
(S) 2-Fluorophenol			*46.5*	*10.0-120*	
(S) 2,4,6-Tribromophenol			*98.5*	*10.0-155*	

L1231742-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231742-06 06/23/20 15:09 • (MS) R3542249-3 06/23/20 15:31 • (MSD) R3542249-4 06/23/20 15:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0455	0.000375	0.0345	0.0324	75.0	70.4	1	28.0-120			6.28	25
Acenaphthylene	0.0455	U	0.0374	0.0351	82.2	77.1	1	31.0-121			6.34	25
Acetophenone	0.0455	U	0.0354	0.0331	77.8	72.7	1	20.0-120			6.72	35
Anthracene	0.0455	U	0.0381	0.0351	83.7	77.1	1	36.0-120			8.20	23
Atrazine	0.0455	U	0.0398	0.0361	87.5	79.3	1	39.0-130			9.75	23
Benzaldehyde	0.0455	U	0.0947	0.0907	208	199	1	10.0-160	J5	J5	4.31	40
Benzo(a)anthracene	0.0455	U	0.0400	0.0368	87.9	80.9	1	39.0-120			8.33	23
Benzo(b)fluoranthene	0.0455	U	0.0404	0.0370	88.8	81.3	1	37.0-120			8.79	23
Benzo(k)fluoranthene	0.0455	U	0.0378	0.0352	83.1	77.4	1	37.0-120			7.12	26
Benzo(g,h,i)perylene	0.0455	U	0.0371	0.0342	81.5	75.2	1	37.0-123			8.13	25
Benzo(a)pyrene	0.0455	U	0.0410	0.0376	90.1	82.6	1	37.0-120			8.65	24
Biphenyl	0.0455	U	0.0364	0.0347	80.0	76.3	1	29.0-120			4.78	33
Bis(2-chlorethoxy)methane	0.0455	U	0.0308	0.0297	67.7	65.3	1	17.0-120			3.64	31
Bis(2-chloroethyl)ether	0.0455	U	0.0320	0.0302	70.3	66.4	1	14.0-120			5.79	33
2,2-Oxybis(1-Chloropropane)	0.0455	U	0.0315	0.0297	69.2	65.3	1	18.0-120			5.88	34
4-Bromophenyl-phenylether	0.0455	U	0.0415	0.0383	91.2	84.2	1	37.0-120			8.02	24
Caprolactam	0.0455	U	0.00596	0.00537	13.1	11.8	1	10.0-120			10.4	40
Carbazole	0.0455	0.00503	0.0432	0.0394	83.9	75.5	1	38.0-127			9.20	21
4-Chloroaniline	0.0455	U	0.00150	0.00151	3.30	3.32	1	10.0-120	J6	J6	0.664	31
2-Chloronaphthalene	0.0455	U	0.0333	0.0322	73.2	70.8	1	29.0-120			3.36	28
4-Chlorophenyl-phenylether	0.0455	U	0.0378	0.0347	83.1	76.3	1	36.0-120			8.55	23
Chrysene	0.0455	U	0.0365	0.0336	80.2	73.8	1	38.0-120			8.27	23
Dibenz(a,h)anthracene	0.0455	U	0.0351	0.0323	77.1	71.0	1	36.0-121			8.31	24
Dibenzofuran	0.0455	0.00164	0.0381	0.0354	80.1	74.2	1	32.0-120			7.35	26
3,3-Dichlorobenzidine	0.0910	U	0.0803	0.0748	88.2	82.2	1	10.0-134			7.09	30
2,4-Dinitrotoluene	0.0455	U	0.0382	0.0349	84.0	76.7	1	39.0-125			9.03	25
2,6-Dinitrotoluene	0.0455	U	0.0372	0.0347	81.8	76.3	1	36.0-120			6.95	27
Fluoranthene	0.0455	U	0.0376	0.0343	82.6	75.4	1	41.0-121			9.18	22
Fluorene	0.0455	0.00317	0.0391	0.0356	79.0	71.3	1	37.0-120			9.37	24
Hexachlorobenzene	0.0455	U	0.0399	0.0371	87.7	81.5	1	35.0-122			7.27	24
Hexachloro-1,3-butadiene	0.0455	U	0.0288	0.0264	63.3	58.0	1	12.0-120			8.70	34
Hexachlorocyclopentadiene	0.0455	U	0.0324	0.0316	71.2	69.5	1	10.0-120			2.50	33
Hexachloroethane	0.0455	U	0.0274	0.0240	60.2	52.7	1	10.0-120			13.2	40
Indeno(1,2,3-cd)pyrene	0.0455	U	0.0383	0.0353	84.2	77.6	1	38.0-125			8.15	24
Isophorone	0.0455	U	0.0306	0.0290	67.3	63.7	1	21.0-120			5.37	27
1-Methylnaphthalene	0.0455	0.000117	0.0287	0.0267	62.8	58.4	1	11.0-120			7.22	27
2-Methylnaphthalene	0.0455	0.000991	0.0292	0.0271	62.0	57.4	1	17.0-120			7.46	28
Naphthalene	0.0455	0.00481	0.0328	0.0306	61.5	56.7	1	10.0-120			6.94	31
2-Nitroaniline	0.0455	U	0.0375	0.0359	82.4	78.9	1	33.0-120			4.36	27
3-Nitroaniline	0.0455	U	0.0196	0.0185	43.1	40.7	1	20.0-120			5.77	27

L1231742-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231742-06 06/23/20 15:09 • (MS) R3542249-3 06/23/20 15:31 • (MSD) R3542249-4 06/23/20 15:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	0.0455	U	0.0345	0.0308	75.8	67.7	1	10.0-160			11.3	26
Nitrobenzene	0.0455	U	0.0284	0.0277	62.4	60.9	1	12.0-120			2.50	30
n-Nitrosodiphenylamine	0.0455	U	0.0378	0.0355	83.1	78.0	1	37.0-120			6.28	24
n-Nitrosodi-n-propylamine	0.0455	U	0.0325	0.0301	71.4	66.2	1	16.0-120			7.67	30
Phenanthrene	0.0455	0.000628	0.0411	0.0378	88.9	81.7	1	33.0-120			8.37	22
Benzylbutyl phthalate	0.0455	U	0.0411	0.0383	90.3	84.2	1	34.0-126			7.05	24
Bis(2-ethylhexyl)phthalate	0.0455	U	0.0422	0.0388	92.7	85.3	1	33.0-126			8.40	25
Di-n-butyl phthalate	0.0455	U	0.0402	0.0367	88.4	80.7	1	35.0-128			9.10	23
Diethyl phthalate	0.0455	U	0.0371	0.0335	81.5	73.6	1	39.0-125			10.2	24
Dimethyl phthalate	0.0455	U	0.0373	0.0342	82.0	75.2	1	37.0-120			8.67	24
Di-n-octyl phthalate	0.0455	U	0.0383	0.0350	84.2	76.9	1	25.0-135			9.00	26
Pyrene	0.0455	U	0.0392	0.0364	86.2	80.0	1	39.0-120			7.41	22
1,2,4-Trichlorobenzene	0.0455	U	0.0280	0.0261	61.5	57.4	1	15.0-120			7.02	31
4-Chloro-3-methylphenol	0.0455	U	0.0309	0.0294	67.9	64.6	1	26.0-120			4.98	27
2-Chlorophenol	0.0455	U	0.0299	0.0283	65.7	62.2	1	18.0-120			5.50	34
2-Methylphenol	0.0455	U	0.0304	0.0295	66.8	64.8	1	10.0-120			3.01	30
3&4-Methyl Phenol	0.0455	U	0.0297	0.0287	65.3	63.1	1	10.0-120			3.42	36
2,4-Dichlorophenol	0.0455	U	0.0312	0.0304	68.6	66.8	1	19.0-120			2.60	27
2,4-Dimethylphenol	0.0455	U	0.0324	0.0318	71.2	69.9	1	15.0-120			1.87	28
4,6-Dinitro-2-methylphenol	0.0455	U	0.0371	0.0341	81.5	74.9	1	10.0-144			8.43	39
2,4-Dinitrophenol	0.0455	U	0.0354	0.0335	77.8	73.6	1	10.0-120			5.52	40
2-Nitrophenol	0.0455	U	0.0305	0.0297	67.0	65.3	1	20.0-120			2.66	30
4-Nitrophenol	0.0455	U	0.0158	0.0147	34.7	32.3	1	10.0-120			7.21	40
Pentachlorophenol	0.0455	U	0.0380	0.0353	83.5	77.6	1	10.0-128			7.37	37
Phenol	0.0455	U	0.0152	0.0130	33.4	28.6	1	10.0-120			15.6	40
2,4,5-Trichlorophenol	0.0455	U	0.0390	0.0373	85.7	82.0	1	33.0-120			4.46	31
2,4,6-Trichlorophenol	0.0455	U	0.0351	0.0340	77.1	74.7	1	26.0-120			3.18	31
(S) Nitrobenzene-d5					*60.5*	*57.9*		*10.0-127*				
(S) 2-Fluorobiphenyl					*76.3*	*75.4*		*10.0-130*				
(S) p-Terphenyl-d14					*88.8*	*82.4*		*10.0-128*				
(S) Phenol-d5					*27.9*	*28.0*		*10.0-120*				
(S) 2-Fluorophenol					*44.0*	*43.8*		*10.0-120*				
(S) 2,4,6-Tribromophenol					*94.5*	*91.2*		*10.0-155*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

DAY 1

TRC Solutions - Austin, TX **505 E. Huntland Dr, Ste 250** **Austin, TX 78752**	Billing Information: **Accounts Payable** **21 Griffin Road North** **Windsor, CT 06095** **apinvoiceapproval@trcsolutions.com**
Report to: **Julie Speer**	Email To: **jspeer@trccompanies.com**
Project Description: **REST Spring 2020**	City/State Collected: **Artesia, NM**
Phone: **512-684-3170** Fax:	Client Project #: **330538.0000.0000**
Collected by (print): **Scott Ude/HMI Team**	Site/Facility ID #: **REST (Navajo - Artesia)**
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y ✓	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day Date Results Needed
	Lab Project #: **TRCATX-REST** P.O. #: **150726** Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RW-#15C	Grab	GW				8	X	X		X	X	X						
MW-48	Grab	GW				10	X	X	X	X	X	X						
MW-130	Grab	GW				10	X	X	X	X	X	X						
KWB-4	Grab	GW				8	X	X		X	X	X						
RW-19	Grab	GW				8	X	X		X	X	X						
MW-52	Grab	GW				11	X	X	X		X	X	X	X				
MW-109	Grab	GW				10	X	X	X	X	X	X						
MW-110	Grab	GW				10	X	X	X	X	X	X						
RW-12R	Grab	GW				8	X	X		X	X	X						
RW-113	Grab	GW				10	X	X	X	X	X	X						

Chain of Custody Page 1 of 13

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230685

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx ✓ Courier __ _____

Tracking # attached

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

RAD SCREEN: <0.5 mR/hr

	Date:	Time:		
Relinquished by : (Signature) Scott Ude	6/17/20	0800	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0-2.8 °C Bottles Received: If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845 Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 2 of 13

Pace Analytical®
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Fax: 615-758-5859

L# 173635

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
KWB-8	Grab	GW				9	X	X			X	X	X	X				
RW-22	Grab	GW				8	X	X		X	X	X						
RW-20A	Grab	GW				8	X	X		X	X	X						
RW-20B	Grab	GW				8	X	X		X	X	X						
RW-13R	Grab	GW				8	X	X		X	X	X						
RW-14R	Grab	GW				8	X	X		X	X	X						
MW-133	Grab	GW				10	X	X	X	X	X	X						
MW-134	Grab	GW				10	X	X	X	X	X	X						
RA-4798	Grab	GW				5	X				X	X						
RA-4196	Grab	GW				5	X				X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N

RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0-2.8 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230695

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RA-3156	Grab	GW				5	X				X	X						
RA-313	Grab	GW				5	X				X	X						
KWB-7	Grab	GW				9	X	X			X	X	X	X				01
MW-135	Grab	GW				10	X	X	X	X	X	X						02
KWB-11A	Grab	GW				11	X	X	X		X	X	X	X				12
KWB-11B	Grab	GW				11	X	X	X		X	X	X	X				03
MW-115	Grab	GW		6/16/20	920	10	X	X	X	X	X	X						04
MW-114	Grab	GW		6/16/20	1020	10	X	X	X	X	X	X						05
MW-117	Grab	GW		6/16/20	1115	10	X	X	X	X	X	X						06
MW-118	Grab	SS		6/16/20	1020	10	X	X	X	X	X	X						07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3 °C Bottles Received: 1.0-.2=.8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 13

Pace Analytical®
National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1270635

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-119	Grab	GW		6/16/20	945	10	X	X	X	X	X	X						08
MW-136	Grab	GW				11	X	X	X		X	X	X	X				
MW-126A	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						09
MW-126B	Grab	GW		6/16/20	1425	10	X	X	X	X	X	X						10
MW-127	Grab	GW				10	X	X	X	X	X	X						
MW-129	Grab	GW				10	X	X	X	X	X	X						
RW-#18A	Grab	GW		6/16/20	950	6	X			X	X	X						11
KWB-1A	Grab	GW				9	X	X			X	X	X	X				
KWB-10R	Grab	GW				8	X	X		X	X	X						
MW-131	Grab	GW		6/16/20	1320	10	X	X	X	X	X	X						12

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ✓Y ___N
COC Signed/Accurate: ✓Y ___N
Bottles arrive intact: ✓Y ___N
Correct bottles used: ✓Y ___N
Sufficient volume sent: ✓Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3 °C Bottles Received: 10-27-8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 5 of 13

Pace Analytical® National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123068

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
KWB-5	Grab	GW				8	X	X		X	X	X						
MW-111	Grab	GW				10	X	X	X	X	X	X						
KWB-6	Grab	GW				11	X	X		X	X	X				X		
MW-112	Grab	GW				10	X	X	X	X	X	X						
MW-132	Grab	GW				10	X	X	X	X	X	X						
MW-57	Grab	GW		6/16/20	1525	10	X	X	X	X	X	X						12
RW-#11-0	Grab	GW				8	X	X		X	X	X						
KWB-12A	Grab	GW		6/16/20	1305	11	X	X	X		X	X	X	X				13
KWB-12B	Grab	GW		6/16/20	1355	11	X	X	X		X	X	X	X				14
KWB-2R	Grab	GW		~~6/16/20~~ SLW		8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	0800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3 °C Bottles Received: 14-2-18
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 6 of 13

Pace Analytical® National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123065

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-58	Grab	GW				9	X	X			X	X	X	X				
KWB-13	Grab	GW		6/16/20	1755	9	X	X			X	X	X	X				15
MW-103	Grab	GW		6/16/20	1310	10	X	X	X	X	X	X						16
MW-104	Grab	GW		6/16/20	1415	10	X	X	X	X	X	X						17
MW-64	Grab	GW		6/16/20	1530	10	X	X	X	X	X	X						18
MW-65	Grab	GW				10	X	X	X	X	X	X						
RW-5R	Grab	GW				8	X	X		X	X	X						
MW-102	Grab	GW		6/16/20	1650	10	X	X	X	X	X	X						19
RW-4	Grab	GW				8	X	X		X	X	X						
RW-6	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp 1.0-2.8 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y V

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 7 of 13

Pace Analytical® National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 730685

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-99	Grab	GW				10	X	X	X	X	X	X						
MW-66	Grab	GW				11	X	X	X		X	X	X	X				
MW-28	Grab	GW				11	X	X	X		X	X	X	X				
MW-59	Grab	GW				10	X	X	X	X	X	X						
MW-60	Grab	GW				11	X	X	X		X	X	X	X				
MW-107	Grab	GW				10	X	X	X	X	X	X						
MW-128	Grab	GW				10	X	X	X	X	X	X						
MW-125	Grab	GW		6/16/20	1055	10	X	X	X	X	X	X						20
MW-116	Grab	GW		6/16/20	1115	10	X	X	X	X	X	X						
UG-3R	Grab	GW		6/15/20	1630	11	X	X	X		X	X	X	X				2224

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS V FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: IR#13 °C Bottles Received: 1.0-2=8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 8 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1730695

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
UG-4	Grab	GW		6/15/20	1720	11	X	X	X		X	X	X	X				23
UG-1	Grab	GW		6/15/20	1810	11	X	X	X		X	X	X	X				24
UG-2	Grab	GW		6/15/20	1910	11	X	X	X		X	X	X	X				25
MW-101	Grab	GW		6/16/20	1505	10	X	X	X	X	X	X						26
MW-105	Grab	GW				10	X	X	X	X	X	X						
RW-2	Grab	GW				12	X	X	X	X	X	X			X			
MW-61	Grab	GW				10	X	X	X	X	X	X						
MW-62	Grab	GW				10	X	X	X	X	X	X						
MW-93	Grab	GW				12	X	X	X	X	X	X			X			
MW-43	Grab	GW				11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.0-.2=.8 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: (cp) / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Chain of Custody Page 9 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123684

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-137	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-138	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-23	Grab	GW				10	X	X	X	X	X	X						
MW-39	Grab	GW		6/16/20	1135	10	X	X	X	X	X	X						27
MW-98	Grab	GW		6/16/20	1355	10	X	X	X	X	X	X						28
RW-10	Grab	GW		6/16/20	925	10	X	X	X	X	X	X						29
MW-40	Grab	GW		6/16/20	925	10	X	X	X	X	X	X						30
MW-41	Grab	GW		6/16/20	1040	10	X	X	X	X	X	X						31
RW-9	Grab	GW		6/16/20	1235	10	X	X	X	X	X	X						32
MW-42	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__UPS ✓FedEx __Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

RAD SCREEN <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: IMPAS °C Bottles Received: 10-2-18	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: (NCF) / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 10 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230685

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-29	Grab	GW		6/16/20	1020	10	X	X	X	X	X	X						33
RW-#16B	Grab	GW		6/16/20	940	8	X	X		X	X	X						34
MW-106	Grab	GW		6/16/20	1625	10	X	X	X	X	X	X						35
MW-139	Grab	GW		6/16/20	1145	10	X	X	X	X	X	X						36
MW-50	Grab	GW		6/16/20	1235	8	X	X		X	X	X						37
MW-97	Grab	GW				12	X	X	X	X	X	X			X			
MW-92	Grab	GW				10	X	X	X	X	X	X						
RW-1	Grab	GW				10	X	X	X	X	X	X						
MW-91	Grab	GW		6/16/20	1400	10	X	X	X	X	X	X						38
MW-90	Grab	GW		6/16/20	1445	10	X	X	X	X	X	X						39

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
PAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.4 1.0 °C Bottles Received: 1.0-2=.8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: (NCF) / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 11 of 13

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1230685

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-96	Grab	GW		6/16/20	1530	10	X	X	X	X	X	X						40
MW-94	Grab	GW				10	X	X	X	X	X	X						
RW-8	Grab	GW				8	X	X		X	X	X						
MW-67	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-95	Grab	GW		6/16/20	1645	10	X	X	X	X	X	X						41
RW-7	Grab	GW				10	X	X	X	X	X	X						
RW-#17A	Grab	GW				10	X	X	X	X	X	X						
DUP-REST-01	Grab	GW				10	X	X	X	X	X	X						
DUP-REST-02	Grab	GW		6/16/20	1425	10	X	X	X	X	X	X						42
DUP-REST-03	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	0800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: PAS °C Bottles Received: 1.0-0=8
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845
				Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 12 of 13

Pace Analytical® National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 730686

Table #

Acctnum: TRCATX

Template: T133463

Prelogin: P763304

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
DUP-REST-04	Grab	GW				11	X	X	X		X	X	X	X				
DUP-REST-05	Grab	GW		6/16/20	1200	11	X	X	X		X	X	X	X				43
EB-REST-01	Grab	GW				10	X	X	X	X	X	X						
EB-REST-02	Grab	GW		6/16/20	1435	10	X	X	X	X	X	X						44
EB-REST-03	Grab	GW				10	X	X	X	X	X	X						
EB-REST-04	Grab	GW				11	X	X	X		X	X	X	X				
EB-REST-05	Grab	GW		6/16/20	1415	11	X	X	X		X	X	X	X				45
TRIP BLANK-REST-01	Grab	GW				1	X											
TRIP BLANK-REST-02	Grab	GW		6/16/20	—	1	X											46
TRIP BLANK-REST-03	Grab	GW		6/16/20	—	1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓ Y __N
COC Signed/Accurate: ✓ Y __N
Bottles arrive intact: ✓ Y __N
Correct bottles used: ✓ Y __N
Sufficient volume sent: ✓ Y __N
If Applicable
VOA Zero Headspace: ✓ Y __N
Preservation Correct/Checked: __ Y __N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	0800			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: IR#15 °C Bottles Received: 1.0-2=8	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
Trip Blank-REST-04	Grab	GW		6/16/20	—	1	X											47
Trip Blank-REST-05	Grab	GW				1	X											

Chain of Custody Page 13 of 13

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 173085
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD SCREEN: <0.5 mR/hr

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	0800		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp A3°C Bottles Received: 1.0-2-.8
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/18/20 Time: 0845

If preservation required by Login: Date/Time

Hold: Condition: OK / OK

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Tracking #	Corresponding Temp.
4492 6229 7130	1.0 - .2 = 0.8 MP A3
↓ 6230 6815	3.2 ± 0 = 3.2 HM A2
1203 5785 6018	1.8 ± 0 = 1.8 HM A2
1203 5786 0856	1.1 ± 0 = 1.1 HM A2
4492 6230 1310	0.9 ± 0 = 0.9
16635756 9559	1.1 ± 0 = 1.1
4492 6230 6859	0.4 ± 0 = 0.4
8098 2926 7587	1.7 ± 0 = 1.7
↓ ↓ 8790	1.1 ± 0 = 1.1
1203 5785 6030	1.3 ± 0 = 1.3
4492 6230 1331	0.4 ± 0 = 0.4
↓ ↓ 1309	2.3 ± 0 = 2.3
1663 5756 9560	3.0 ± 0 = 3.0
↓ ↓ 9570	0.6 ± 0 = 0.6
4492 6230 1310	0.7 ± 0 = 0.7

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Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Matt Shacklock

Pace Analytical®
National Center for Testing & Innovation

Login #:1230685	Client: TRCATX	Date:6/18	Evaluated by:Katie

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

1. **Received IDs that don't have dates and times on the chain. They were logged. KWB-11A, KWB-11B, KWB-7**
2. **Didn't receive RW-#18A, Trip blank REST 03 and MW-116**

Client informed by:		Call	x	Email		Voice Mail		Date: 6/19/20	Time:
TSR Initials: CM	Client Contact: Scott Ude								

Login Instructions:

1. **COC received today will have the collect date/time for these samples listed.**
2. **Client is resampling.**

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 03, 2021

Revised Report

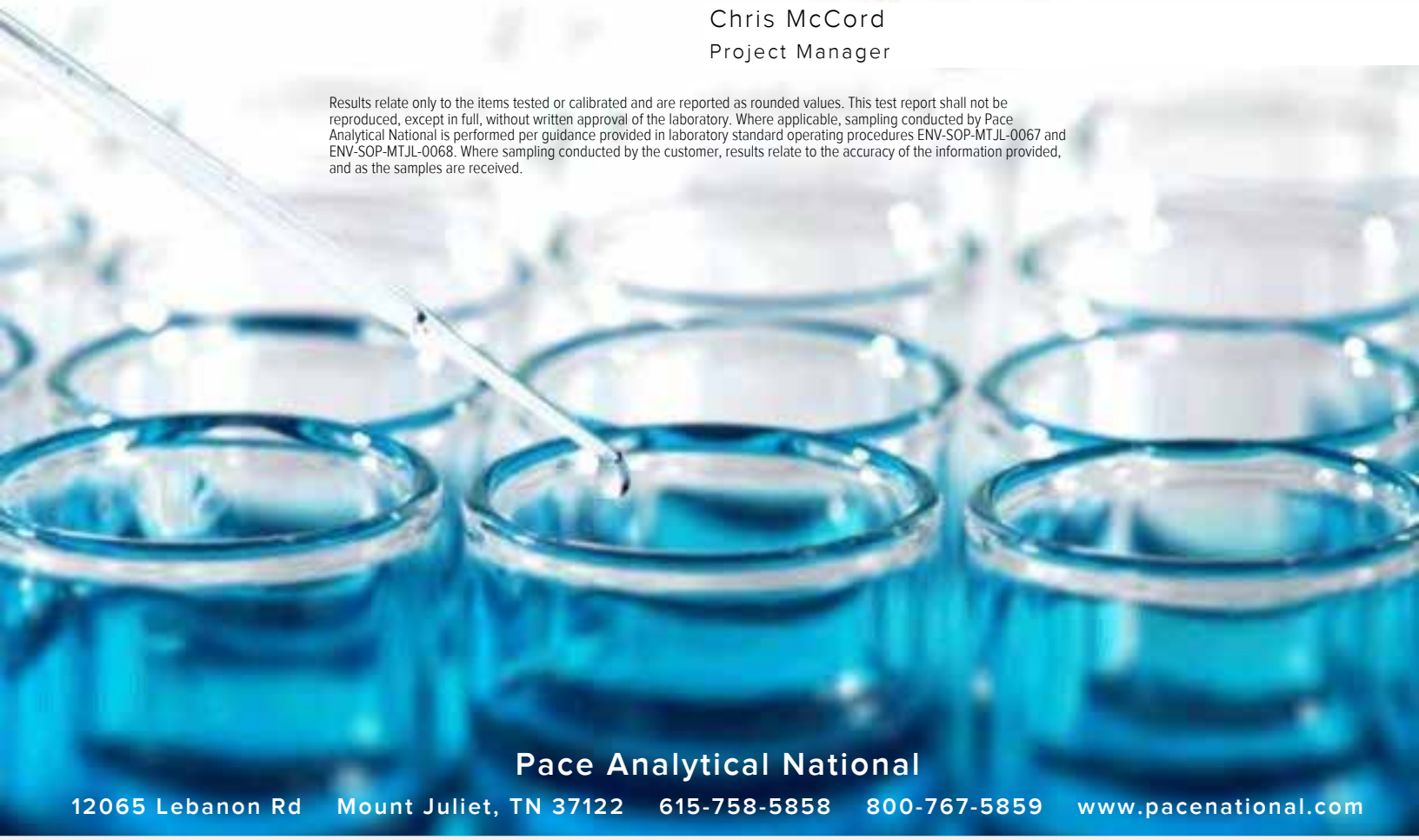
TRC Solutions - Austin, TX

Sample Delivery Group:	L1231128
Samples Received:	06/19/2020
Project Number:	330538.0000.0000
Description:	REST Spring 2020
Site:	REST (NAVAJO-ARTESIA)
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-130 L1231128-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498641	1	06/27/20 15:41	06/27/20 15:41	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/25/20 21:00	06/25/20 21:00	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/25/20 21:18	06/25/20 21:18	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 21:56	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:39	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498473	1	06/25/20 04:54	06/25/20 04:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 01:13	06/23/20 01:13	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 03:39	06/25/20 03:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/27/20 22:15	CAG	Mt. Juliet, TN

MW-52 L1231128-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498641	5	06/27/20 15:43	06/27/20 15:43	LEB	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	1	06/27/20 19:06	06/27/20 20:39	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/25/20 21:36	06/25/20 21:36	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	100	06/25/20 21:54	06/25/20 21:54	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496609	1	06/22/20 19:00	06/23/20 13:01	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 17:57	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498718	1	06/25/20 17:46	06/25/20 23:24	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:43	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 21:59	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:43	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498473	1	06/25/20 05:16	06/25/20 05:16	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 01:33	06/23/20 01:33	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 03:58	06/25/20 03:58	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/27/20 22:41	CAG	Mt. Juliet, TN

MW-109 L1231128-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:35
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1498641	50	06/27/20 15:44	06/27/20 15:44	LEB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/25/20 22:12	06/25/20 22:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	20	06/25/20 22:29	06/25/20 22:29	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:02	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:46	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499069	10	06/25/20 22:08	06/25/20 22:08	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	10	06/23/20 01:52	06/23/20 01:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	10	06/25/20 04:18	06/25/20 04:18	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/27/20 23:07	CAG	Mt. Juliet, TN

MW-110 L1231128-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:50
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 17:25	06/29/20 17:25	BAM	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-110 L1231128-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:50
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1498057	1	06/25/20 22:47	06/25/20 22:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 00:21	06/26/20 00:21	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:05	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499069	1	06/25/20 22:30	06/25/20 22:30	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 02:11	06/23/20 02:11	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 04:37	06/25/20 04:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/27/20 23:33	CAG	Mt. Juliet, TN

RW-12R L1231128-05 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:35
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:31	06/29/20 16:31	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 00:57	06/26/20 00:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 01:15	06/26/20 01:15	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:09	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:53	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 02:31	06/23/20 02:31	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 04:56	06/25/20 04:56	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/27/20 23:58	CAG	Mt. Juliet, TN

MW-113 L1231128-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:32	06/29/20 16:32	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 01:33	06/26/20 01:33	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 01:50	06/26/20 01:50	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:15	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498748	1	06/26/20 07:58	06/27/20 01:57	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499069	1	06/25/20 22:52	06/25/20 22:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	5	06/23/20 02:50	06/23/20 02:50	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	5	06/25/20 05:16	06/25/20 05:16	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 00:24	CAG	Mt. Juliet, TN

MW-134 L1231128-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:34	06/29/20 16:34	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 02:08	06/26/20 02:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 02:26	06/26/20 02:26	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:18	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 19:45	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 07:21	06/25/20 07:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 03:10	06/23/20 03:10	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 05:35	06/25/20 05:35	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 00:50	CAG	Mt. Juliet, TN

RA-4798 L1231128-08 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 16:05 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:41	06/29/20 16:41	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 02:44	06/26/20 02:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 03:38	06/26/20 03:38	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 19:59	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 03:29	06/23/20 03:29	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 05:55	06/25/20 05:55	BMB	Mt. Juliet, TN

RA-4196 L1231128-09 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 15:50 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:42	06/29/20 16:42	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 03:56	06/26/20 03:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	50	06/26/20 04:14	06/26/20 04:14	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:03	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 03:48	06/23/20 03:48	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 06:14	06/25/20 06:14	BMB	Mt. Juliet, TN

RA-3156 L1231128-10 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 15:20 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:44	06/29/20 16:44	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 04:32	06/26/20 04:32	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	10	06/26/20 04:50	06/26/20 04:50	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:06	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 04:08	06/23/20 04:08	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498558	1	06/25/20 06:34	06/25/20 06:34	BMB	Mt. Juliet, TN

RA-313 L1231128-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 08:55 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:45	06/29/20 16:45	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 05:08	06/26/20 05:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	20	06/26/20 05:25	06/26/20 05:25	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:09	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 04:27	06/23/20 04:27	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	1	06/25/20 07:23	06/25/20 07:23	JAH	Mt. Juliet, TN

MW-135 L1231128-12 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 14:20 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	10	06/29/20 16:46	06/29/20 16:46	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 05:43	06/26/20 05:43	ELN	Mt. Juliet, TN

MW-135 L1231128-12 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1498057	100	06/26/20 06:01	06/26/20 06:01	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:23	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499077	1	06/25/20 18:36	06/25/20 18:36	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 04:47	06/23/20 04:47	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	1	06/25/20 07:43	06/25/20 07:43	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 01:16	CAG	Mt. Juliet, TN

MW-136 L1231128-13 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	5	06/29/20 16:47	06/29/20 16:47	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	1	06/27/20 19:06	06/27/20 20:42	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 06:19	06/26/20 06:19	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	100	06/26/20 07:13	06/26/20 07:13	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496609	1	06/22/20 19:00	06/23/20 13:03	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 17:59	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498718	1	06/25/20 17:46	06/25/20 23:28	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:46	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:25	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:26	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499077	1	06/25/20 18:59	06/25/20 18:59	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 05:06	06/23/20 05:06	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	1	06/25/20 08:03	06/25/20 08:03	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 01:41	CAG	Mt. Juliet, TN

KWB-1A L1231128-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:49	06/29/20 16:49	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	1	06/27/20 19:06	06/27/20 20:44	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 07:31	06/26/20 07:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	100	06/26/20 07:49	06/26/20 07:49	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496609	1	06/22/20 19:00	06/23/20 13:06	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 18:01	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498718	1	06/25/20 17:46	06/25/20 23:31	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:49	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:45	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:30	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 05:25	06/23/20 05:25	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	1	06/25/20 08:23	06/25/20 08:23	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 02:07	CAG	Mt. Juliet, TN

MW-111 L1231128-15 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:50	06/29/20 16:50	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 08:07	06/26/20 08:07	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	10	06/26/20 08:25	06/26/20 08:25	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:48	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:33	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 08:29	06/25/20 08:29	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	25	06/23/20 05:45	06/23/20 05:45	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	25	06/25/20 08:43	06/25/20 08:43	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 02:33	CAG	Mt. Juliet, TN

RW-4 L1231128-16 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	10	06/29/20 16:52	06/29/20 16:52	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 08:43	06/26/20 08:43	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	10	06/26/20 09:36	06/26/20 09:36	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:52	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:36	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497257	1	06/23/20 06:04	06/23/20 06:04	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	1	06/25/20 09:02	06/25/20 09:02	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	1	06/23/20 16:48	06/28/20 02:58	CAG	Mt. Juliet, TN

MW-99 L1231128-17 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:50
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 16:57	06/29/20 16:57	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 09:54	06/26/20 09:54	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	5	06/26/20 10:48	06/26/20 10:48	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:40	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 08:52	06/25/20 08:52	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498717	10	06/25/20 09:22	06/25/20 09:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497076	5	06/23/20 16:48	06/28/20 03:24	CAG	Mt. Juliet, TN

MW-66 L1231128-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 17:00	06/29/20 17:00	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	1	06/27/20 19:06	06/27/20 20:45	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 11:06	06/26/20 11:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	5	06/26/20 11:42	06/26/20 11:42	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496609	1	06/22/20 19:00	06/23/20 13:08	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 18:26	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498718	1	06/25/20 17:46	06/25/20 23:34	EL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:51	EL	Mt. Juliet, TN

MW-66 L1231128-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 22:59	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:43	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 09:15	06/25/20 09:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 02:05	06/23/20 02:05	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	10	06/26/20 00:28	06/26/20 00:28	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	5	06/23/20 16:01	06/29/20 08:11	CAG	Mt. Juliet, TN

MW-28 L1231128-19 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	5	06/29/20 17:01	06/29/20 17:01	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	20	06/27/20 19:06	06/27/20 20:46	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	100	06/26/20 12:35	06/26/20 12:35	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	5	06/26/20 12:18	06/26/20 12:18	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 21:41	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 18:28	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:09	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:54	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498724	1	06/25/20 16:32	06/25/20 23:02	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:47	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499077	1	06/25/20 19:22	06/25/20 19:22	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	5	06/26/20 00:48	06/26/20 00:48	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	5	06/23/20 16:01	06/29/20 10:28	JDG	Mt. Juliet, TN

MW-59 L1231128-20 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498145	1	06/24/20 18:56	06/24/20 21:57	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	1	06/29/20 17:02	06/29/20 17:02	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	1	06/26/20 12:53	06/26/20 12:53	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498057	100	06/26/20 13:11	06/26/20 13:11	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 13:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 20:50	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 09:38	06/25/20 09:38	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 02:52	06/23/20 02:52	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 05:30	CAG	Mt. Juliet, TN

MW-60 L1231128-21 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	50	06/29/20 17:04	06/29/20 17:04	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	20	06/27/20 19:06	06/27/20 20:47	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 05:01	06/27/20 05:01	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	50	06/27/20 05:20	06/27/20 05:20	GB	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 21:48	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496615	1	06/22/20 11:32	06/22/20 17:20	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:12	TRB	Mt. Juliet, TN

MW-60 L1231128-21 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 21:58	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:12	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:07	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 10:01	06/25/20 10:01	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 03:16	06/23/20 03:16	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 03:49	CAG	Mt. Juliet, TN

MW-105 L1231128-22 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	50	06/29/20 17:05	06/29/20 17:05	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 05:38	06/27/20 05:38	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	5	06/27/20 05:57	06/27/20 05:57	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:16	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:10	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	50	06/25/20 12:41	06/25/20 12:41	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	50	06/23/20 03:40	06/23/20 03:40	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 07:31	CAG	Mt. Juliet, TN

MW-61 L1231128-23 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499266	100	06/29/20 17:06	06/29/20 17:06	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 08:40	06/27/20 08:40	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	50	06/27/20 08:58	06/27/20 08:58	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:19	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:14	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	50	06/25/20 13:26	06/25/20 13:26	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	50	06/23/20 04:04	06/23/20 04:04	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 05:50	CAG	Mt. Juliet, TN

MW-62 L1231128-24 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	50	06/30/20 18:08	06/30/20 18:08	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 09:16	06/27/20 09:16	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	20	06/27/20 09:34	06/27/20 09:34	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:22	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:17	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	20	06/25/20 13:49	06/25/20 13:49	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	20	06/23/20 04:28	06/23/20 04:28	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 06:50	CAG	Mt. Juliet, TN

MW-93 L1231128-25 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	50	06/30/20 18:09	06/30/20 18:09	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 09:53	06/27/20 09:53	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	50	06/27/20 10:11	06/27/20 10:11	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:46	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:20	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1498490	1	06/25/20 10:24	06/25/20 10:24	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	20	06/23/20 04:52	06/23/20 04:52	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 07:10	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1496728	5	06/22/20 08:41	06/23/20 01:16	SHG	Mt. Juliet, TN

MW-43 L1231128-26 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	5	06/30/20 18:10	06/30/20 18:10	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	20	06/27/20 19:06	06/27/20 20:48	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 10:30	06/27/20 10:30	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	20	06/27/20 10:48	06/27/20 10:48	GB	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 21:50	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:00	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:15	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 22:00	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:49	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498749	1	06/26/20 18:05	06/27/20 21:24	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500303	50	06/27/20 18:04	06/27/20 18:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	20	06/26/20 01:09	06/26/20 01:09	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	5	06/23/20 16:01	06/29/20 10:49	JDG	Mt. Juliet, TN

MW-23 L1231128-27 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	10	06/30/20 18:11	06/30/20 18:11	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 11:07	06/27/20 11:07	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	10	06/27/20 11:25	06/27/20 11:25	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:52	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 22:28	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	20	06/26/20 00:42	06/26/20 00:42	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	10	06/23/20 05:39	06/23/20 05:39	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	20	06/26/20 01:29	06/26/20 01:29	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	5	06/23/20 16:01	06/29/20 11:09	JDG	Mt. Juliet, TN

MW-42 L1231128-28 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	50	06/30/20 18:14	06/30/20 18:14	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 12:20	06/27/20 12:20	GB	Mt. Juliet, TN

MW-42 L1231128-28 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1498064	50	06/27/20 12:39	06/27/20 12:39	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:56	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 22:57	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	20	06/26/20 01:04	06/26/20 01:04	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	5	06/23/20 06:03	06/23/20 06:03	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	5	06/26/20 01:49	06/26/20 01:49	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 06:10	CAG	Mt. Juliet, TN

RW-7 L1231128-29 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	50	06/30/20 18:15	06/30/20 18:15	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 12:57	06/27/20 12:57	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	10	06/27/20 13:15	06/27/20 13:15	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 14:59	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499718	5	06/26/20 14:59	06/26/20 14:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 06:27	06/23/20 06:27	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 06:30	CAG	Mt. Juliet, TN

RW-#17A L1231128-30 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:20	06/30/20 18:20	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 13:34	06/27/20 13:34	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	100	06/27/20 13:52	06/27/20 13:52	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:03	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:04	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 20:08	06/25/20 20:08	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 06:51	06/23/20 06:51	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 04:29	CAG	Mt. Juliet, TN

DUP-REST-01 L1231128-31 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:24	06/30/20 18:24	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	5	06/27/20 14:11	06/27/20 14:11	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	50	06/27/20 14:29	06/27/20 14:29	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:06	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:08	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500307	1	06/27/20 16:10	06/27/20 16:10	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499394	1	06/26/20 00:08	06/26/20 00:08	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 03:09	CAG	Mt. Juliet, TN

DUP-REST-03 L1231128-32 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:25	06/30/20 18:25	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	10	06/27/20 14:48	06/27/20 14:48	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	100	06/27/20 15:06	06/27/20 15:06	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:10	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:11	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 20:53	06/25/20 20:53	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 07:39	06/23/20 07:39	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 02:08	CAG	Mt. Juliet, TN

DUP-REST-04 L1231128-33 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	10	06/30/20 18:26	06/30/20 18:26	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	20	06/27/20 19:06	06/27/20 20:49	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	10	06/27/20 16:01	06/27/20 16:01	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	100	06/27/20 16:20	06/27/20 16:20	GB	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 21:52	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:27	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 22:09	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:13	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:14	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 21:16	06/25/20 21:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 08:02	06/23/20 08:02	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 04:09	CAG	Mt. Juliet, TN

EB-REST-01 L1231128-34 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:30
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:28	06/30/20 18:28	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 04:06	06/27/20 04:06	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:27	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:18	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 21:39	06/25/20 21:39	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 08:26	06/23/20 08:26	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 01:48	CAG	Mt. Juliet, TN

EB-REST-03 L1231128-35 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:29	06/30/20 18:29	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 16:38	06/27/20 16:38	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:30	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 22:02	06/25/20 22:02	ADM	Mt. Juliet, TN

EB-REST-03 L1231128-35 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/17/20 14:00	06/19/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 08:50	06/23/20 08:50	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 02:48	CAG	Mt. Juliet, TN

EB-REST-04 L1231128-36 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/17/20 12:05	06/19/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:31	06/30/20 18:31	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1500401	1	06/27/20 19:06	06/27/20 20:50	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498064	1	06/27/20 16:57	06/27/20 16:57	GB	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 21:59	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:30	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498738	1	06/25/20 16:39	06/25/20 22:11	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:34	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:25	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499718	1	06/26/20 14:36	06/26/20 14:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 09:14	06/23/20 09:14	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 02:28	CAG	Mt. Juliet, TN

TRIP BLANK-REST-01 L1231128-37 GW

			Collected by	Collected date/time	Received date/time	
			Scott Ude / HMI Team	06/17/20 00:00	06/19/20 08:45	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497261	1	06/23/20 01:41	06/23/20 01:41	TJJ	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 07/01/20 21:08

Project Narrative

1/30/21: COC revised to OK from NCF. Missing samples were received in good order the following day in a delayed shipment.

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1231128-03	MW-109	8015D/GRO
L1231128-27	MW-23	8015D/GRO

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

Lab Sample ID	Project Sample ID	Method
L1231128-06	MW-113	8015D/GRO

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2390		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.861		0.0500	0.100	1	06/27/2020 15:41	WG1498641

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	208		19.0	50.0	50	06/25/2020 21:18	WG1498057
Fluoride	0.828		0.0640	0.150	1	06/25/2020 21:00	WG1498057
Sulfate	972		29.7	250	50	06/25/2020 21:18	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00375		0.000735	0.00200	1	06/27/2020 01:39	WG1498748
Arsenic,Dissolved	0.00369		0.000735	0.00200	1	06/25/2020 21:56	WG1498724
Barium	0.0168	J	0.00778	0.0200	1	06/27/2020 01:39	WG1498748
Barium,Dissolved	0.0169	J	0.00778	0.0200	1	06/25/2020 21:56	WG1498724
Calcium	247		0.480	1.00	1	06/27/2020 01:39	WG1498748
Chromium	U		0.00149	0.00200	1	06/27/2020 01:39	WG1498748
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 21:56	WG1498724
Iron	0.0745	J	0.0489	0.100	1	06/27/2020 01:39	WG1498748
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 21:56	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:39	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 21:56	WG1498724
Manganese	0.0968		0.00132	0.00500	1	06/27/2020 01:39	WG1498748
Manganese,Dissolved	0.102		0.00132	0.00500	1	06/25/2020 21:56	WG1498724
Potassium	0.656	J	0.534	2.00	1	06/27/2020 01:39	WG1498748
Selenium	0.00436		0.000657	0.00200	1	06/27/2020 01:39	WG1498748
Selenium,Dissolved	0.00498		0.000657	0.00200	1	06/25/2020 21:56	WG1498724
Sodium	285		0.630	2.00	1	06/27/2020 01:39	WG1498748

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/25/2020 04:54	WG1498473
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*78.0-120*		*06/25/2020 04:54*	WG1498473

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 01:13	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 01:13	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 01:13	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 01:13	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 01:13	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 01:13	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 01:13	WG1497257
Carbon disulfide	0.000332	B J	0.0000962	0.00100	1	06/23/2020 01:13	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 03:39	WG1498558

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 01:13	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 01:13	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 01:13	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 01:13	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 01:13	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 01:13	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 01:13	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 01:13	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 01:13	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 01:13	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 01:13	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 01:13	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 01:13	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 01:13	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 01:13	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 01:13	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 01:13	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 01:13	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 01:13	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 01:13	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 01:13	WG1497257
Methyl tert-butyl ether	0.00424		0.000101	0.00100	1	06/23/2020 01:13	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 01:13	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 01:13	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 01:13	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 01:13	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 01:13	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 01:13	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 01:13	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 01:13	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 01:13	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 01:13	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 01:13	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 01:13	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 01:13	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 01:13	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 01:13	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 01:13	WG1497257
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 01:13*	WG1497257
(S) Toluene-d8	*108*			*80.0-120*		*06/25/2020 03:39*	WG1498558
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 01:13*	WG1497257
(S) 4-Bromofluorobenzene	*93.4*			*77.0-126*		*06/25/2020 03:39*	WG1498558
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/23/2020 01:13*	WG1497257
(S) 1,2-Dichloroethane-d4	*99.5*			*70.0-130*		*06/25/2020 03:39*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.609		0.0247	0.100	1	06/27/2020 22:15	WG1497076
(S) o-Terphenyl	*81.1*			*31.0-160*		*06/27/2020 22:15*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2810		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	13.0		0.250	0.500	5	06/27/2020 15:43	WG1498641

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/27/2020 20:39	WG1500401

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	195		37.9	100	100	06/25/2020 21:54	WG1498057
Fluoride	1.71		0.0640	0.150	1	06/25/2020 21:36	WG1498057
Sulfate	1140		59.4	500	100	06/25/2020 21:54	WG1498057

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 13:01	WG1496609
Mercury,Dissolved	U		0.000100	0.000200	1	06/22/2020 17:57	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.767		0.0254	0.200	1	06/25/2020 21:43	WG1498738
Boron,Dissolved	0.792		0.0254	0.200	1	06/25/2020 23:24	WG1498718

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00344		0.000735	0.00200	1	06/27/2020 01:43	WG1498748
Arsenic,Dissolved	0.00379		0.000735	0.00200	1	06/25/2020 21:59	WG1498724
Barium	0.0149	J	0.00778	0.0200	1	06/27/2020 01:43	WG1498748
Barium,Dissolved	0.0136	J	0.00778	0.0200	1	06/25/2020 21:59	WG1498724
Cadmium	U		0.000478	0.00100	1	06/27/2020 01:43	WG1498748
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 21:59	WG1498724
Calcium	239		0.480	1.00	1	06/27/2020 01:43	WG1498748
Chromium	0.00273		0.00149	0.00200	1	06/27/2020 01:43	WG1498748
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 21:59	WG1498724
Cobalt	0.000742	J	0.000477	0.00200	1	06/27/2020 01:43	WG1498748
Cobalt,Dissolved	0.000478	J	0.000477	0.00200	1	06/25/2020 21:59	WG1498724
Iron	0.252		0.0489	0.100	1	06/27/2020 01:43	WG1498748
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 21:59	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:43	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 21:59	WG1498724
Manganese	0.0928		0.00132	0.00500	1	06/27/2020 01:43	WG1498748
Manganese,Dissolved	0.0738		0.00132	0.00500	1	06/25/2020 21:59	WG1498724
Nickel	0.0260		0.000952	0.00200	1	06/27/2020 01:43	WG1498748
Nickel,Dissolved	0.0252		0.000952	0.00200	1	06/25/2020 21:59	WG1498724

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Collected date/time: 06/17/20 13:20
L1231128

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	U		0.534	2.00	1	06/27/2020 01:43	WG1498748
Selenium	0.00612		0.000657	0.00200	1	06/27/2020 01:43	WG1498748
Selenium,Dissolved	0.00633		0.000657	0.00200	1	06/25/2020 21:59	WG1498724
Sodium	340		0.630	2.00	1	06/27/2020 01:43	WG1498748
Uranium	0.0131	J	0.00754	0.0200	1	06/27/2020 01:43	WG1498748
Uranium,Dissolved	0.0123	J	0.00754	0.0200	1	06/25/2020 21:59	WG1498724
Vanadium	0.0247		0.000986	0.00500	1	06/27/2020 01:43	WG1498748
Vanadium,Dissolved	0.0251		0.000986	0.00500	1	06/25/2020 21:59	WG1498724

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/25/2020 05:16	WG1498473
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*78.0-120*		*06/25/2020 05:16*	WG1498473

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 01:33	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 01:33	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 01:33	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 01:33	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 01:33	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 01:33	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 01:33	WG1497257
Carbon disulfide	0.000318	B J	0.0000962	0.00100	1	06/23/2020 01:33	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 03:58	WG1498558
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 01:33	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 01:33	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 01:33	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 01:33	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 01:33	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 01:33	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 01:33	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 01:33	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 01:33	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 01:33	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 01:33	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 01:33	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 01:33	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 01:33	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 01:33	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 01:33	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 01:33	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 01:33	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 01:33	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 01:33	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 01:33	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 01:33	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 01:33	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 01:33	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 01:33	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 01:33	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 01:33	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 01:33	WG1497257

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

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Collected date/time: 06/17/20 13:20
L1231128

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	06/23/2020 01:33	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 01:33	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 01:33	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 01:33	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 01:33	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 01:33	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 01:33	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 01:33	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 01:33	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 01:33	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 01:33*	WG1497257
(S) Toluene-d8	*108*			*80.0-120*		*06/25/2020 03:58*	WG1498558
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/23/2020 01:33*	WG1497257
(S) 4-Bromofluorobenzene	*91.8*			*77.0-126*		*06/25/2020 03:58*	WG1498558
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 01:33*	WG1497257
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*06/25/2020 03:58*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.294		0.0247	0.100	1	06/27/2020 22:41	WG1497076
(S) o-Terphenyl	*72.1*			*31.0-160*		*06/27/2020 22:41*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2150		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/27/2020 15:44	WG1498641

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	191		7.58	20.0	20	06/25/2020 22:29	WG1498057
Fluoride	1.97		0.0640	0.150	1	06/25/2020 22:12	WG1498057
Sulfate	496		11.9	100	20	06/25/2020 22:29	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00261		0.000735	0.00200	1	06/27/2020 01:46	WG1498748
Arsenic,Dissolved	0.00310		0.000735	0.00200	1	06/25/2020 22:02	WG1498724
Barium	0.0574		0.00778	0.0200	1	06/27/2020 01:46	WG1498748
Barium,Dissolved	0.0437		0.00778	0.0200	1	06/25/2020 22:02	WG1498724
Calcium	87.7		0.480	1.00	1	06/27/2020 01:46	WG1498748
Chromium	U		0.00149	0.00200	1	06/27/2020 01:46	WG1498748
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:02	WG1498724
Iron	U		0.0489	0.100	1	06/27/2020 01:46	WG1498748
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:02	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:46	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:02	WG1498724
Manganese	0.0531		0.00132	0.00500	1	06/27/2020 01:46	WG1498748
Manganese,Dissolved	0.0675		0.00132	0.00500	1	06/25/2020 22:02	WG1498724
Potassium	0.786	J	0.534	2.00	1	06/27/2020 01:46	WG1498748
Selenium	U		0.000657	0.00200	1	06/27/2020 01:46	WG1498748
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:02	WG1498724
Sodium	423		0.630	2.00	1	06/27/2020 01:46	WG1498748

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5.44		0.314	1.00	10	06/25/2020 22:08	WG1499069
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*78.0-120*		*06/25/2020 22:08*	WG1499069

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	06/23/2020 01:52	WG1497257
Benzene	1.78		0.000941	0.0100	10	06/23/2020 01:52	WG1497257
Bromodichloromethane	U		0.00136	0.0100	10	06/23/2020 01:52	WG1497257
Bromoform	U		0.00129	0.0100	10	06/23/2020 01:52	WG1497257
Bromomethane	U		0.00605	0.0500	10	06/23/2020 01:52	WG1497257
n-Butylbenzene	U		0.00157	0.0100	10	06/23/2020 01:52	WG1497257
sec-Butylbenzene	0.00604	J	0.00125	0.0100	10	06/23/2020 01:52	WG1497257
Carbon disulfide	0.00454	B J	0.000962	0.0100	10	06/23/2020 01:52	WG1497257
Carbon tetrachloride	U		0.00128	0.0100	10	06/25/2020 04:18	WG1498558

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00116	0.0100	10	06/23/2020 01:52	WG1497257
Chlorodibromomethane	U		0.00140	0.0100	10	06/23/2020 01:52	WG1497257
Chloroethane	U		0.00192	0.0500	10	06/23/2020 01:52	WG1497257
Chloroform	U		0.00111	0.0500	10	06/23/2020 01:52	WG1497257
Chloromethane	U		0.00960	0.0250	10	06/23/2020 01:52	WG1497257
1,2-Dibromoethane	U		0.00126	0.0100	10	06/23/2020 01:52	WG1497257
1,1-Dichloroethane	U		0.00100	0.0100	10	06/23/2020 01:52	WG1497257
1,2-Dichloroethane	U		0.000819	0.0100	10	06/23/2020 01:52	WG1497257
1,1-Dichloroethene	U		0.00188	0.0100	10	06/23/2020 01:52	WG1497257
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	06/23/2020 01:52	WG1497257
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	06/23/2020 01:52	WG1497257
1,2-Dichloropropane	U		0.00149	0.0100	10	06/23/2020 01:52	WG1497257
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	06/23/2020 01:52	WG1497257
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	06/23/2020 01:52	WG1497257
Ethylbenzene	0.00892	J	0.00137	0.0100	10	06/23/2020 01:52	WG1497257
Isopropylbenzene	0.0746		0.00105	0.0100	10	06/23/2020 01:52	WG1497257
p-Isopropyltoluene	U		0.00120	0.0100	10	06/23/2020 01:52	WG1497257
2-Butanone (MEK)	U		0.0119	0.100	10	06/23/2020 01:52	WG1497257
2-Hexanone	U		0.00787	0.100	10	06/23/2020 01:52	WG1497257
Methylene Chloride	U		0.00430	0.0500	10	06/23/2020 01:52	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	06/23/2020 01:52	WG1497257
Methyl tert-butyl ether	U		0.00101	0.0100	10	06/23/2020 01:52	WG1497257
Naphthalene	U		0.0100	0.0500	10	06/23/2020 01:52	WG1497257
n-Propylbenzene	0.0596		0.000993	0.0100	10	06/23/2020 01:52	WG1497257
Styrene	U		0.00118	0.0100	10	06/23/2020 01:52	WG1497257
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	06/23/2020 01:52	WG1497257
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	06/23/2020 01:52	WG1497257
Tetrachloroethene	U		0.00300	0.0100	10	06/23/2020 01:52	WG1497257
Toluene	0.0221		0.00278	0.0100	10	06/23/2020 01:52	WG1497257
1,1,1-Trichloroethane	U		0.00149	0.0100	10	06/23/2020 01:52	WG1497257
1,1,2-Trichloroethane	U		0.00158	0.0100	10	06/23/2020 01:52	WG1497257
Trichloroethene	U		0.00190	0.0100	10	06/23/2020 01:52	WG1497257
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	06/23/2020 01:52	WG1497257
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	06/23/2020 01:52	WG1497257
Vinyl chloride	U		0.00234	0.0100	10	06/23/2020 01:52	WG1497257
o-Xylene	U		0.00174	0.0100	10	06/23/2020 01:52	WG1497257
m&p-Xylene	0.0238		0.00430	0.0200	10	06/23/2020 01:52	WG1497257
Xylenes, Total	0.0238	J	0.00174	0.0300	10	06/23/2020 01:52	WG1497257
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 01:52*	WG1497257
(S) Toluene-d8	*104*			*80.0-120*		*06/25/2020 04:18*	WG1498558
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/23/2020 01:52*	WG1497257
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*		*06/25/2020 04:18*	WG1498558
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/23/2020 01:52*	WG1497257
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*06/25/2020 04:18*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.61		0.0247	0.100	1	06/27/2020 23:07	WG1497076
(S) o-Terphenyl	*92.1*			*31.0-160*		*06/27/2020 23:07*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1300		7.05	25.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 17:25	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	95.6		0.379	1.00	1	06/25/2020 22:47	WG1498057
Fluoride	1.39		0.0640	0.150	1	06/25/2020 22:47	WG1498057
Sulfate	316		29.7	250	50	06/26/2020 00:21	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0345		0.000735	0.00200	1	06/27/2020 01:50	WG1498748
Arsenic,Dissolved	0.0355		0.000735	0.00200	1	06/25/2020 22:05	WG1498724
Barium	0.0516		0.00778	0.0200	1	06/27/2020 01:50	WG1498748
Barium,Dissolved	0.0516		0.00778	0.0200	1	06/25/2020 22:05	WG1498724
Calcium	97.8		0.480	1.00	1	06/27/2020 01:50	WG1498748
Chromium	U		0.00149	0.00200	1	06/27/2020 01:50	WG1498748
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:05	WG1498724
Iron	0.919		0.0489	0.100	1	06/27/2020 01:50	WG1498748
Iron,Dissolved	0.876		0.0489	0.100	1	06/25/2020 22:05	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:50	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:05	WG1498724
Manganese	1.92		0.00132	0.00500	1	06/27/2020 01:50	WG1498748
Manganese,Dissolved	2.03		0.00132	0.00500	1	06/25/2020 22:05	WG1498724
Potassium	U		0.534	2.00	1	06/27/2020 01:50	WG1498748
Selenium	U		0.000657	0.00200	1	06/27/2020 01:50	WG1498748
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:05	WG1498724
Sodium	251		0.630	2.00	1	06/27/2020 01:50	WG1498748

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.587		0.0314	0.100	1	06/25/2020 22:30	WG1499069
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*78.0-120*		*06/25/2020 22:30*	WG1499069

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:11	WG1497257
Benzene	0.00152		0.0000941	0.00100	1	06/23/2020 02:11	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:11	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:11	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:11	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 02:11	WG1497257
sec-Butylbenzene	0.00314		0.000125	0.00100	1	06/23/2020 02:11	WG1497257
Carbon disulfide	0.000346	B J	0.0000962	0.00100	1	06/23/2020 02:11	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 04:37	WG1498558

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:11	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:11	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:11	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:11	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:11	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:11	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:11	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:11	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:11	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:11	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:11	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:11	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:11	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:11	WG1497257
Ethylbenzene	0.000357	J	0.000137	0.00100	1	06/23/2020 02:11	WG1497257
Isopropylbenzene	0.00747		0.000105	0.00100	1	06/23/2020 02:11	WG1497257
p-Isopropyltoluene	0.00103		0.000120	0.00100	1	06/23/2020 02:11	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:11	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:11	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:11	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 02:11	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 02:11	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 02:11	WG1497257
n-Propylbenzene	0.00560		0.0000993	0.00100	1	06/23/2020 02:11	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 02:11	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:11	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:11	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:11	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 02:11	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:11	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:11	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:11	WG1497257
1,2,4-Trimethylbenzene	0.00293		0.000322	0.00100	1	06/23/2020 02:11	WG1497257
1,3,5-Trimethylbenzene	0.000744	J	0.000104	0.00100	1	06/23/2020 02:11	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:11	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 02:11	WG1497257
m&p-Xylene	0.00123	J	0.000430	0.00200	1	06/23/2020 02:11	WG1497257
Xylenes, Total	0.00123	J	0.000174	0.00300	1	06/23/2020 02:11	WG1497257
(S) Toluene-d8	*98.4*			*80.0-120*		*06/23/2020 02:11*	WG1497257
(S) Toluene-d8	*92.4*			*80.0-120*		*06/25/2020 04:37*	WG1498558
(S) 4-Bromofluorobenzene	*91.7*			*77.0-126*		*06/23/2020 02:11*	WG1497257
(S) 4-Bromofluorobenzene	*87.1*			*77.0-126*		*06/25/2020 04:37*	WG1498558
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/23/2020 02:11*	WG1497257
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/25/2020 04:37*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.696		0.0247	0.100	1	06/27/2020 23:33	WG1497076
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/27/2020 23:33*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2750		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:31	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	143		19.0	50.0	50	06/26/2020 01:15	WG1498057
Fluoride	0.716		0.0640	0.150	1	06/26/2020 00:57	WG1498057
Sulfate	1300		29.7	250	50	06/26/2020 01:15	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/27/2020 01:53	WG1498748
Arsenic,Dissolved	U		0.000735	0.00200	1	06/25/2020 22:09	WG1498724
Barium	0.0342		0.00778	0.0200	1	06/27/2020 01:53	WG1498748
Barium,Dissolved	0.0348		0.00778	0.0200	1	06/25/2020 22:09	WG1498724
Calcium	337		0.480	1.00	1	06/27/2020 01:53	WG1498748
Chromium	0.0557		0.00149	0.00200	1	06/27/2020 01:53	WG1498748
Chromium,Dissolved	0.0266		0.00149	0.00200	1	06/25/2020 22:09	WG1498724
Iron	0.150		0.0489	0.100	1	06/27/2020 01:53	WG1498748
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:09	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:53	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:09	WG1498724
Manganese	1.39		0.00132	0.00500	1	06/27/2020 01:53	WG1498748
Manganese,Dissolved	1.41		0.00132	0.00500	1	06/25/2020 22:09	WG1498724
Potassium	U		0.534	2.00	1	06/27/2020 01:53	WG1498748
Selenium	U		0.000657	0.00200	1	06/27/2020 01:53	WG1498748
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:09	WG1498724
Sodium	158		0.630	2.00	1	06/27/2020 01:53	WG1498748

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:31	WG1497257
Benzene	0.154		0.0000941	0.00100	1	06/23/2020 02:31	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:31	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:31	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:31	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 02:31	WG1497257
sec-Butylbenzene	0.00414		0.000125	0.00100	1	06/23/2020 02:31	WG1497257
Carbon disulfide	0.00118	B	0.0000962	0.00100	1	06/23/2020 02:31	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 04:56	WG1498558
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:31	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:31	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:31	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:31	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:31	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:31	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:31	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:31	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:31	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:31	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:31	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:31	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:31	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:31	WG1497257
Ethylbenzene	0.00223		0.000137	0.00100	1	06/23/2020 02:31	WG1497257
Isopropylbenzene	0.0303		0.000105	0.00100	1	06/23/2020 02:31	WG1497257
p-Isopropyltoluene	0.000352	J	0.000120	0.00100	1	06/23/2020 02:31	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:31	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:31	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:31	WG1497257
4-Methyl-2-pentanone (MIBK)	0.00567	J	0.000478	0.0100	1	06/23/2020 02:31	WG1497257
Methyl tert-butyl ether	0.00225		0.000101	0.00100	1	06/23/2020 02:31	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 02:31	WG1497257
n-Propylbenzene	0.0304		0.0000993	0.00100	1	06/23/2020 02:31	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 02:31	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:31	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:31	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:31	WG1497257
Toluene	0.000997	J	0.000278	0.00100	1	06/23/2020 02:31	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:31	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:31	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:31	WG1497257
1,2,4-Trimethylbenzene	0.00494		0.000322	0.00100	1	06/23/2020 02:31	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 02:31	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:31	WG1497257
o-Xylene	0.000522	J	0.000174	0.00100	1	06/23/2020 02:31	WG1497257
m&p-Xylene	0.00553		0.000430	0.00200	1	06/23/2020 02:31	WG1497257
Xylenes, Total	0.00605		0.000174	0.00300	1	06/23/2020 02:31	WG1497257
(S) Toluene-d8	*99.2*			*80.0-120*		*06/23/2020 02:31*	WG1497257
(S) Toluene-d8	*103*			*80.0-120*		*06/25/2020 04:56*	WG1498558
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*		*06/23/2020 02:31*	WG1497257
(S) 4-Bromofluorobenzene	*93.0*			*77.0-126*		*06/25/2020 04:56*	WG1498558
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 02:31*	WG1497257
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*06/25/2020 04:56*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.633		0.0247	0.100	1	06/27/2020 23:58	WG1497076
(S) o-Terphenyl	*83.2*			*31.0-160*		*06/27/2020 23:58*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2440		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:32	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	192		19.0	50.0	50	06/26/2020 01:50	WG1498057
Fluoride	0.519		0.0640	0.150	1	06/26/2020 01:33	WG1498057
Sulfate	1210		29.7	250	50	06/26/2020 01:50	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00185	J	0.000735	0.00200	1	06/27/2020 01:57	WG1498748
Arsenic,Dissolved	0.00192	J	0.000735	0.00200	1	06/25/2020 22:15	WG1498724
Barium	0.0334		0.00778	0.0200	1	06/27/2020 01:57	WG1498748
Barium,Dissolved	0.0245		0.00778	0.0200	1	06/25/2020 22:15	WG1498724
Calcium	317		0.480	1.00	1	06/27/2020 01:57	WG1498748
Chromium	0.00155	J	0.00149	0.00200	1	06/27/2020 01:57	WG1498748
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:15	WG1498724
Iron	1.16		0.0489	0.100	1	06/27/2020 01:57	WG1498748
Iron,Dissolved	0.776		0.0489	0.100	1	06/25/2020 22:15	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 01:57	WG1498748
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:15	WG1498724
Manganese	1.29		0.00132	0.00500	1	06/27/2020 01:57	WG1498748
Manganese,Dissolved	1.31		0.00132	0.00500	1	06/25/2020 22:15	WG1498724
Potassium	0.598	J	0.534	2.00	1	06/27/2020 01:57	WG1498748
Selenium	U		0.000657	0.00200	1	06/27/2020 01:57	WG1498748
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:15	WG1498724
Sodium	159		0.630	2.00	1	06/27/2020 01:57	WG1498748

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.30		0.0314	0.100	1	06/25/2020 22:52	WG1499069
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*78.0-120*		*06/25/2020 22:52*	WG1499069

Sample Narrative:

L1231128-06 WG1499069: Insufficient sample volume for additional analysis

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/23/2020 02:50	WG1497257
Benzene	0.0306		0.000471	0.00500	5	06/23/2020 02:50	WG1497257
Bromodichloromethane	U		0.000680	0.00500	5	06/23/2020 02:50	WG1497257
Bromoform	U		0.000645	0.00500	5	06/23/2020 02:50	WG1497257
Bromomethane	U		0.00303	0.0250	5	06/23/2020 02:50	WG1497257
n-Butylbenzene	U		0.000785	0.00500	5	06/23/2020 02:50	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.000625	0.00500	5	06/23/2020 02:50	WG1497257
Carbon disulfide	0.00281	B J	0.000481	0.00500	5	06/23/2020 02:50	WG1497257
Carbon tetrachloride	U		0.000640	0.00500	5	06/25/2020 05:16	WG1498558
Chlorobenzene	U		0.000580	0.00500	5	06/23/2020 02:50	WG1497257
Chlorodibromomethane	U		0.000700	0.00500	5	06/23/2020 02:50	WG1497257
Chloroethane	U		0.000960	0.0250	5	06/23/2020 02:50	WG1497257
Chloroform	U		0.000555	0.0250	5	06/23/2020 02:50	WG1497257
Chloromethane	U		0.00480	0.0125	5	06/23/2020 02:50	WG1497257
1,2-Dibromoethane	U		0.000630	0.00500	5	06/23/2020 02:50	WG1497257
1,1-Dichloroethane	U		0.000500	0.00500	5	06/23/2020 02:50	WG1497257
1,2-Dichloroethane	U		0.000409	0.00500	5	06/23/2020 02:50	WG1497257
1,1-Dichloroethene	U		0.000940	0.00500	5	06/23/2020 02:50	WG1497257
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/23/2020 02:50	WG1497257
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/23/2020 02:50	WG1497257
1,2-Dichloropropane	U		0.000745	0.00500	5	06/23/2020 02:50	WG1497257
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/23/2020 02:50	WG1497257
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/23/2020 02:50	WG1497257
Ethylbenzene	0.00355	J	0.000685	0.00500	5	06/23/2020 02:50	WG1497257
Isopropylbenzene	0.00158	J	0.000525	0.00500	5	06/23/2020 02:50	WG1497257
p-Isopropyltoluene	0.00138	J	0.000600	0.00500	5	06/23/2020 02:50	WG1497257
2-Butanone (MEK)	U		0.00595	0.0500	5	06/23/2020 02:50	WG1497257
2-Hexanone	U		0.00394	0.0500	5	06/23/2020 02:50	WG1497257
Methylene Chloride	U		0.00215	0.0250	5	06/23/2020 02:50	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/23/2020 02:50	WG1497257
Methyl tert-butyl ether	0.0129		0.000505	0.00500	5	06/23/2020 02:50	WG1497257
Naphthalene	U		0.00500	0.0250	5	06/23/2020 02:50	WG1497257
n-Propylbenzene	0.00199	J	0.000497	0.00500	5	06/23/2020 02:50	WG1497257
Styrene	U		0.000590	0.00500	5	06/23/2020 02:50	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/23/2020 02:50	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/23/2020 02:50	WG1497257
Tetrachloroethene	U		0.00150	0.00500	5	06/23/2020 02:50	WG1497257
Toluene	U		0.00139	0.00500	5	06/23/2020 02:50	WG1497257
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/23/2020 02:50	WG1497257
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/23/2020 02:50	WG1497257
Trichloroethene	U		0.000950	0.00500	5	06/23/2020 02:50	WG1497257
1,2,4-Trimethylbenzene	0.0357		0.00161	0.00500	5	06/23/2020 02:50	WG1497257
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/23/2020 02:50	WG1497257
Vinyl chloride	U		0.00117	0.00500	5	06/23/2020 02:50	WG1497257
o-Xylene	U		0.000870	0.00500	5	06/23/2020 02:50	WG1497257
m&p-Xylene	0.0363		0.00215	0.0100	5	06/23/2020 02:50	WG1497257
Xylenes, Total	0.0363		0.000870	0.0150	5	06/23/2020 02:50	WG1497257
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 02:50*	WG1497257
(S) Toluene-d8	*106*			*80.0-120*		*06/25/2020 05:16*	WG1498558
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 02:50*	WG1497257
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*		*06/25/2020 05:16*	WG1498558
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*06/23/2020 02:50*	WG1497257
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*06/25/2020 05:16*	WG1498558

Sample Narrative:

L1231128-06 WG1497257: dilution due to high non-targets/matrix

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.226		0.0247	0.100	1	06/28/2020 00:24	WG1497076
(S) o-Terphenyl	*65.3*			*31.0-160*		*06/28/2020 00:24*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4870		28.2	100	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.73	J5	0.0500	0.100	1	06/29/2020 16:34	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	370		19.0	50.0	50	06/26/2020 02:26	WG1498057
Fluoride	1.16		0.0640	0.150	1	06/26/2020 02:08	WG1498057
Sulfate	2910		29.7	250	50	06/26/2020 02:26	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00368		0.000735	0.00200	1	06/27/2020 19:45	WG1498749
Arsenic,Dissolved	0.00399		0.000735	0.00200	1	06/25/2020 22:18	WG1498724
Barium	0.00896	J	0.00778	0.0200	1	06/27/2020 19:45	WG1498749
Barium,Dissolved	0.00946	J	0.00778	0.0200	1	06/25/2020 22:18	WG1498724
Calcium	515		0.480	1.00	1	06/27/2020 19:45	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 19:45	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:18	WG1498724
Iron	U		0.0489	0.100	1	06/27/2020 19:45	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:18	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 19:45	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:18	WG1498724
Manganese	0.00741		0.00132	0.00500	1	06/27/2020 19:45	WG1498749
Manganese,Dissolved	0.00664		0.00132	0.00500	1	06/25/2020 22:18	WG1498724
Potassium	1.51	J	0.534	2.00	1	06/27/2020 19:45	WG1498749
Selenium	0.00631		0.000657	0.00200	1	06/27/2020 19:45	WG1498749
Selenium,Dissolved	0.00596		0.000657	0.00200	1	06/25/2020 22:18	WG1498724
Sodium	234	V	0.630	2.00	1	06/27/2020 19:45	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0330	B J	0.0314	0.100	1	06/25/2020 07:21	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 07:21*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 03:10	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 03:10	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 03:10	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 03:10	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 03:10	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 03:10	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 03:10	WG1497257
Carbon disulfide	0.000449	B J	0.0000962	0.00100	1	06/23/2020 03:10	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 05:35	WG1498558

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 03:10	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 03:10	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 03:10	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 03:10	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 03:10	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 03:10	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 03:10	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 03:10	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 03:10	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 03:10	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 03:10	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 03:10	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 03:10	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 03:10	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 03:10	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 03:10	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 03:10	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 03:10	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 03:10	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 03:10	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 03:10	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 03:10	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 03:10	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 03:10	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 03:10	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 03:10	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 03:10	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 03:10	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 03:10	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 03:10	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 03:10	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 03:10	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 03:10	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 03:10	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 03:10	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 03:10	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 03:10	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 03:10	WG1497257
(S) Toluene-d8	*103*			*80.0-120*		*06/23/2020 03:10*	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/25/2020 05:35*	WG1498558
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/23/2020 03:10*	WG1497257
(S) 4-Bromofluorobenzene	*94.9*			*77.0-126*		*06/25/2020 05:35*	WG1498558
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/23/2020 03:10*	WG1497257
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/25/2020 05:35*	WG1498558

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0820	J	0.0247	0.100	1	06/28/2020 00:50	WG1497076
(S) o-Terphenyl	*55.3*			*31.0-160*		*06/28/2020 00:50*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2820		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.50		0.0500	0.100	1	06/29/2020 16:41	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	163		19.0	50.0	50	06/26/2020 03:38	WG1498057
Fluoride	0.321		0.0640	0.150	1	06/26/2020 02:44	WG1498057
Sulfate	1620		29.7	250	50	06/26/2020 03:38	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	449		0.480	1.00	1	06/27/2020 19:59	WG1498749
Potassium	2.30		0.534	2.00	1	06/27/2020 19:59	WG1498749
Sodium	117		0.630	2.00	1	06/27/2020 19:59	WG1498749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 03:29	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 03:29	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 03:29	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 03:29	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 03:29	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 03:29	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 03:29	WG1497257
Carbon disulfide	0.000356	B J	0.0000962	0.00100	1	06/23/2020 03:29	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 05:55	WG1498558
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 03:29	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 03:29	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 03:29	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 03:29	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 03:29	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 03:29	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 03:29	WG1497257
1,2-Dichloroethane	0.00228		0.0000819	0.00100	1	06/23/2020 03:29	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 03:29	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 03:29	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 03:29	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 03:29	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 03:29	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 03:29	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 03:29	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 03:29	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 03:29	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 03:29	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 03:29	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 03:29	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 03:29	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.0170		0.000101	0.00100	1	06/23/2020 03:29	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 03:29	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 03:29	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 03:29	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 03:29	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 03:29	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 03:29	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 03:29	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 03:29	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 03:29	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 03:29	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 03:29	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 03:29	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 03:29	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 03:29	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 03:29	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 03:29	WG1497257
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 03:29*	WG1497257
(S) Toluene-d8	*105*			*80.0-120*		*06/25/2020 05:55*	WG1498558
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*06/23/2020 03:29*	WG1497257
(S) 4-Bromofluorobenzene	*96.6*			*77.0-126*		*06/25/2020 05:55*	WG1498558
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*06/23/2020 03:29*	WG1497257
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/25/2020 05:55*	WG1498558

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2290		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:42	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	126		19.0	50.0	50	06/26/2020 04:14	WG1498057
Fluoride	0.324		0.0640	0.150	1	06/26/2020 03:56	WG1498057
Sulfate	1330		29.7	250	50	06/26/2020 04:14	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	365		0.480	1.00	1	06/27/2020 20:03	WG1498749
Potassium	2.17		0.534	2.00	1	06/27/2020 20:03	WG1498749
Sodium	90.1		0.630	2.00	1	06/27/2020 20:03	WG1498749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 03:48	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 03:48	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 03:48	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 03:48	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 03:48	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 03:48	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 03:48	WG1497257
Carbon disulfide	0.000840	B J	0.0000962	0.00100	1	06/23/2020 03:48	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 06:14	WG1498558
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 03:48	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 03:48	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 03:48	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 03:48	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 03:48	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 03:48	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 03:48	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 03:48	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 03:48	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 03:48	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 03:48	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 03:48	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 03:48	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 03:48	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 03:48	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 03:48	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 03:48	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 03:48	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 03:48	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 03:48	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 03:48	WG1497257

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RA-1130
Collected date/time: 06/17/20 15:50
L1231128

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00948		0.000101	0.00100	1	06/23/2020 03:48	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 03:48	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 03:48	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 03:48	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 03:48	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 03:48	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 03:48	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 03:48	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 03:48	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 03:48	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 03:48	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 03:48	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 03:48	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 03:48	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 03:48	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 03:48	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 03:48	WG1497257
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 03:48*	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/25/2020 06:14*	WG1498558
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/23/2020 03:48*	WG1497257
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*		*06/25/2020 06:14*	WG1498558
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*06/23/2020 03:48*	WG1497257
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/25/2020 06:14*	WG1498558

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1250		5.64	20.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:44	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	280		3.79	10.0	10	06/26/2020 04:50	WG1498057
Fluoride	0.313		0.0640	0.150	1	06/26/2020 04:32	WG1498057
Sulfate	603		5.94	50.0	10	06/26/2020 04:50	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	180		0.480	1.00	1	06/27/2020 20:06	WG1498749
Potassium	2.62		0.534	2.00	1	06/27/2020 20:06	WG1498749
Sodium	97.8		0.630	2.00	1	06/27/2020 20:06	WG1498749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 04:08	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 04:08	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 04:08	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 04:08	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 04:08	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 04:08	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 04:08	WG1497257
Carbon disulfide	0.000520	B J	0.0000962	0.00100	1	06/23/2020 04:08	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 06:34	WG1498558
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 04:08	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 04:08	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 04:08	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 04:08	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 04:08	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 04:08	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 04:08	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 04:08	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 04:08	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 04:08	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 04:08	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 04:08	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 04:08	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 04:08	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 04:08	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 04:08	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 04:08	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 04:08	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 04:08	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 04:08	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 04:08	WG1497257

Received by OCD: 6/23/2021 4:05:29 PM

RA-3136
Collected date/time: 06/17/20 15:20
L1231128

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 04:08	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 04:08	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 04:08	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 04:08	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 04:08	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 04:08	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 04:08	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 04:08	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 04:08	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 04:08	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 04:08	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 04:08	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 04:08	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 04:08	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 04:08	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 04:08	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 04:08	WG1497257
(S) Toluene-d8	*111*			*80.0-120*		*06/23/2020 04:08*	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/25/2020 06:34*	WG1498558
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/23/2020 04:08*	WG1497257
(S) 4-Bromofluorobenzene	*94.9*			*77.0-126*		*06/25/2020 06:34*	WG1498558
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*06/23/2020 04:08*	WG1497257
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*06/25/2020 06:34*	WG1498558

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1400		5.64	20.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.570		0.0500	0.100	1	06/29/2020 16:45	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	190		7.58	20.0	20	06/26/2020 05:25	WG1498057
Fluoride	0.898		0.0640	0.150	1	06/26/2020 05:08	WG1498057
Sulfate	635		11.9	100	20	06/26/2020 05:25	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	221		0.480	1.00	1	06/27/2020 20:09	WG1498749
Potassium	1.66	J	0.534	2.00	1	06/27/2020 20:09	WG1498749
Sodium	99.9		0.630	2.00	1	06/27/2020 20:09	WG1498749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 04:27	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 04:27	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 04:27	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 04:27	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 04:27	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 04:27	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 04:27	WG1497257
Carbon disulfide	0.000433	B J	0.0000962	0.00100	1	06/23/2020 04:27	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 07:23	WG1498717
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 04:27	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 04:27	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 04:27	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 04:27	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 04:27	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 04:27	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 04:27	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 04:27	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 04:27	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 04:27	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 04:27	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 04:27	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 04:27	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 04:27	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 04:27	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 04:27	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 04:27	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 04:27	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 04:27	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 04:27	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 04:27	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 04:27	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 04:27	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 04:27	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 04:27	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 04:27	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 04:27	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 04:27	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 04:27	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 04:27	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 04:27	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 04:27	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 04:27	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 04:27	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 04:27	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 04:27	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 04:27	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 04:27	WG1497257
(S) Toluene-d8	*115*			*80.0-120*		*06/23/2020 04:27*	WG1497257
(S) Toluene-d8	*102*			*80.0-120*		*06/25/2020 07:23*	WG1498717
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/23/2020 04:27*	WG1497257
(S) 4-Bromofluorobenzene	*93.8*			*77.0-126*		*06/25/2020 07:23*	WG1498717
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*06/23/2020 04:27*	WG1497257
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/25/2020 07:23*	WG1498717

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5600		28.2	100	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	16.0		0.500	1.00	10	06/29/2020 16:46	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	542		37.9	100	100	06/26/2020 06:01	WG1498057
Fluoride	1.14		0.0640	0.150	1	06/26/2020 05:43	WG1498057
Sulfate	2940		59.4	500	100	06/26/2020 06:01	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00326		0.000735	0.00200	1	06/27/2020 20:23	WG1498749
Arsenic,Dissolved	0.00314		0.000735	0.00200	1	06/25/2020 22:22	WG1498724
Barium	0.0158	J	0.00778	0.0200	1	06/27/2020 20:23	WG1498749
Barium,Dissolved	U		0.00778	0.0200	1	06/25/2020 22:22	WG1498724
Calcium	542		0.480	1.00	1	06/27/2020 20:23	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:23	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:22	WG1498724
Iron	0.203		0.0489	0.100	1	06/27/2020 20:23	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:22	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:23	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:22	WG1498724
Manganese	0.0119		0.00132	0.00500	1	06/27/2020 20:23	WG1498749
Manganese,Dissolved	U		0.00132	0.00500	1	06/25/2020 22:22	WG1498724
Potassium	0.801	J	0.534	2.00	1	06/27/2020 20:23	WG1498749
Selenium	0.0221		0.000657	0.00200	1	06/27/2020 20:23	WG1498749
Selenium,Dissolved	0.0224		0.000657	0.00200	1	06/25/2020 22:22	WG1498724
Sodium	594		0.630	2.00	1	06/27/2020 20:23	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0425	J	0.0314	0.100	1	06/25/2020 18:36	WG1499077
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 18:36*	WG1499077

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 04:47	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 04:47	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 04:47	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 04:47	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 04:47	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 04:47	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 04:47	WG1497257
Carbon disulfide	0.000301	B J	0.0000962	0.00100	1	06/23/2020 04:47	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 07:43	WG1498717

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 04:47	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 04:47	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 04:47	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 04:47	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 04:47	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 04:47	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 04:47	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 04:47	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 04:47	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 04:47	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 04:47	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 04:47	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 04:47	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 04:47	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 04:47	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 04:47	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 04:47	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 04:47	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 04:47	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 04:47	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 04:47	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 04:47	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 04:47	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 04:47	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 04:47	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 04:47	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 04:47	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 04:47	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 04:47	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 04:47	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 04:47	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 04:47	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 04:47	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 04:47	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 04:47	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 04:47	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 04:47	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 04:47	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 04:47*	WG1497257
(S) Toluene-d8	*101*			*80.0-120*		*06/25/2020 07:43*	WG1498717
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*06/23/2020 04:47*	WG1497257
(S) 4-Bromofluorobenzene	*92.6*			*77.0-126*		*06/25/2020 07:43*	WG1498717
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 04:47*	WG1497257
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*06/25/2020 07:43*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0380	J	0.0247	0.100	1	06/28/2020 01:16	WG1497076
(S) o-Terphenyl	*56.3*			*31.0-160*		*06/28/2020 01:16*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4290		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	13.2		0.250	0.500	5	06/29/2020 16:47	WG1499266

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/27/2020 20:42	WG1500401

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	300		37.9	100	100	06/26/2020 07:13	WG1498057
Fluoride	1.62		0.0640	0.150	1	06/26/2020 06:19	WG1498057
Sulfate	2370		59.4	500	100	06/26/2020 07:13	WG1498057

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/23/2020 13:03	WG1496609
Mercury,Dissolved	U		0.000100	0.000200	1	06/22/2020 17:59	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.571		0.0254	0.200	1	06/25/2020 21:46	WG1498738
Boron,Dissolved	0.590		0.0254	0.200	1	06/25/2020 23:28	WG1498718

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00245		0.000735	0.00200	1	06/27/2020 20:26	WG1498749
Arsenic,Dissolved	0.00256		0.000735	0.00200	1	06/25/2020 22:25	WG1498724
Barium	0.0147	J	0.00778	0.0200	1	06/27/2020 20:26	WG1498749
Barium,Dissolved	0.0102	J	0.00778	0.0200	1	06/25/2020 22:25	WG1498724
Cadmium	U		0.000478	0.00100	1	06/27/2020 20:26	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 22:25	WG1498724
Calcium	631		0.480	1.00	1	06/27/2020 20:26	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:26	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:25	WG1498724
Cobalt	0.000685	J	0.000477	0.00200	1	06/27/2020 20:26	WG1498749
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 22:25	WG1498724
Iron	0.171		0.0489	0.100	1	06/27/2020 20:26	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:25	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:26	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:25	WG1498724
Manganese	0.0352		0.00132	0.00500	1	06/27/2020 20:26	WG1498749
Manganese,Dissolved	0.00499	J	0.00132	0.00500	1	06/25/2020 22:25	WG1498724
Nickel	0.00183	J	0.000952	0.00200	1	06/27/2020 20:26	WG1498749
Nickel,Dissolved	0.00214		0.000952	0.00200	1	06/25/2020 22:25	WG1498724

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	2.53		0.534	2.00	1	06/27/2020 20:26	WG1498749
Selenium	0.00593		0.000657	0.00200	1	06/27/2020 20:26	WG1498749
Selenium,Dissolved	0.00481		0.000657	0.00200	1	06/25/2020 22:25	WG1498724
Sodium	139		0.630	2.00	1	06/27/2020 20:26	WG1498749
Uranium	0.0639		0.00754	0.0200	1	06/27/2020 20:26	WG1498749
Uranium,Dissolved	0.0624		0.00754	0.0200	1	06/25/2020 22:25	WG1498724
Vanadium	0.0161		0.000986	0.00500	1	06/27/2020 20:26	WG1498749
Vanadium,Dissolved	0.0174		0.000986	0.00500	1	06/25/2020 22:25	WG1498724

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.326	V3	0.0314	0.100	1	06/25/2020 18:59	WG1499077
(S) a,a,a-Trifluorotoluene(FID)	*124*	J1		*78.0-120*		*06/25/2020 18:59*	WG1499077

Sample Narrative:

L1231128-13 WG1499077: IS/SURR failure due to matrix interference.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 05:06	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 05:06	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 05:06	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 05:06	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 05:06	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 05:06	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 05:06	WG1497257
Carbon disulfide	0.000273	B J	0.0000962	0.00100	1	06/23/2020 05:06	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 08:03	WG1498717
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 05:06	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 05:06	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 05:06	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 05:06	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 05:06	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 05:06	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 05:06	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 05:06	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 05:06	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 05:06	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 05:06	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 05:06	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 05:06	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 05:06	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 05:06	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 05:06	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 05:06	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 05:06	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 05:06	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 05:06	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 05:06	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 05:06	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 05:06	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 05:06	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 05:06	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 05:06	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 05:06	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 05:06	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 05:06	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 05:06	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 05:06	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 05:06	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 05:06	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 05:06	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 05:06	WG1497257
o-Xylene	U		0.000174	0.00100	1	06/23/2020 05:06	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 05:06	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 05:06	WG1497257
(S) Toluene-d8	*114*			*80.0-120*		*06/23/2020 05:06*	WG1497257
(S) Toluene-d8	*108*			*80.0-120*		*06/25/2020 08:03*	WG1498717
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/23/2020 05:06*	WG1497257
(S) 4-Bromofluorobenzene	*95.1*			*77.0-126*		*06/25/2020 08:03*	WG1498717
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*06/23/2020 05:06*	WG1497257
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*06/25/2020 08:03*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0924	J	0.0247	0.100	1	06/28/2020 01:41	WG1497076
(S) o-Terphenyl	*63.2*			*31.0-160*		*06/28/2020 01:41*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4490		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.142		0.0500	0.100	1	06/29/2020 16:49	WG1499266

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/27/2020 20:44	WG1500401

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	271		37.9	100	100	06/26/2020 07:49	WG1498057
Fluoride	1.33		0.0640	0.150	1	06/26/2020 07:31	WG1498057
Sulfate	2600		59.4	500	100	06/26/2020 07:49	WG1498057

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/23/2020 13:06	WG1496609
Mercury,Dissolved	U		0.000100	0.000200	1	06/22/2020 18:01	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.723		0.0254	0.200	1	06/25/2020 21:49	WG1498738
Boron,Dissolved	0.756		0.0254	0.200	1	06/25/2020 23:31	WG1498718

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00334		0.000735	0.00200	1	06/27/2020 20:30	WG1498749
Arsenic,Dissolved	0.00362		0.000735	0.00200	1	06/25/2020 22:45	WG1498724
Barium	0.00826	J	0.00778	0.0200	1	06/27/2020 20:30	WG1498749
Barium,Dissolved	0.00833	J	0.00778	0.0200	1	06/25/2020 22:45	WG1498724
Cadmium	U		0.000478	0.00100	1	06/27/2020 20:30	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 22:45	WG1498724
Calcium	465		0.480	1.00	1	06/27/2020 20:30	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:30	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:45	WG1498724
Cobalt	0.00315		0.000477	0.00200	1	06/27/2020 20:30	WG1498749
Cobalt,Dissolved	0.00291		0.000477	0.00200	1	06/25/2020 22:45	WG1498724
Iron	U		0.0489	0.100	1	06/27/2020 20:30	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:45	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:30	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:45	WG1498724
Manganese	0.305		0.00132	0.00500	1	06/27/2020 20:30	WG1498749
Manganese,Dissolved	0.306		0.00132	0.00500	1	06/25/2020 22:45	WG1498724
Nickel	0.00630		0.000952	0.00200	1	06/27/2020 20:30	WG1498749
Nickel,Dissolved	0.00802		0.000952	0.00200	1	06/25/2020 22:45	WG1498724

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.854	J	0.534	2.00	1	06/27/2020 20:30	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:30	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:45	WG1498724
Sodium	234		0.630	2.00	1	06/27/2020 20:30	WG1498749
Uranium	0.0157	J	0.00754	0.0200	1	06/27/2020 20:30	WG1498749
Uranium,Dissolved	0.0150	J	0.00754	0.0200	1	06/25/2020 22:45	WG1498724
Vanadium	0.0230		0.000986	0.00500	1	06/27/2020 20:30	WG1498749
Vanadium,Dissolved	0.0241		0.000986	0.00500	1	06/25/2020 22:45	WG1498724

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 05:25	WG1497257
Benzene	U		0.0000941	0.00100	1	06/23/2020 05:25	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 05:25	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 05:25	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 05:25	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 05:25	WG1497257
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 05:25	WG1497257
Carbon disulfide	0.000300	B J	0.0000962	0.00100	1	06/23/2020 05:25	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 08:23	WG1498717
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 05:25	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 05:25	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 05:25	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 05:25	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 05:25	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 05:25	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 05:25	WG1497257
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 05:25	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 05:25	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 05:25	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 05:25	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 05:25	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 05:25	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 05:25	WG1497257
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 05:25	WG1497257
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 05:25	WG1497257
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 05:25	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 05:25	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 05:25	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 05:25	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 05:25	WG1497257
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 05:25	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 05:25	WG1497257
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 05:25	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 05:25	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 05:25	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 05:25	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 05:25	WG1497257
Toluene	U		0.000278	0.00100	1	06/23/2020 05:25	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 05:25	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 05:25	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 05:25	WG1497257
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 05:25	WG1497257
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 05:25	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 05:25	WG1497257

Received by OCD: 6/23/2021 4:05:29 PM

KWB-1A
Collected date/time: 06/17/20 10:00
L1231128

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
o-Xylene	U		0.000174	0.00100	1	06/23/2020 05:25	WG1497257
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 05:25	WG1497257
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 05:25	WG1497257
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 05:25*	WG1497257
(S) Toluene-d8	*100*			*80.0-120*		*06/25/2020 08:23*	WG1498717
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/23/2020 05:25*	WG1497257
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*		*06/25/2020 08:23*	WG1498717
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/23/2020 05:25*	WG1497257
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*06/25/2020 08:23*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.123		0.0247	0.100	1	06/28/2020 02:07	WG1497076
(S) o-Terphenyl	*64.7*			*31.0-160*		*06/28/2020 02:07*	WG1497076

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1970		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:50	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	409		3.79	10.0	10	06/26/2020 08:25	WG1498057
Fluoride	1.08		0.0640	0.150	1	06/26/2020 08:07	WG1498057
Sulfate	372		5.94	50.0	10	06/26/2020 08:25	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0183		0.000735	0.00200	1	06/27/2020 20:33	WG1498749
Arsenic,Dissolved	0.0170		0.000735	0.00200	1	06/25/2020 22:48	WG1498724
Barium	0.285		0.00778	0.0200	1	06/27/2020 20:33	WG1498749
Barium,Dissolved	0.167		0.00778	0.0200	1	06/25/2020 22:48	WG1498724
Calcium	251		0.480	1.00	1	06/27/2020 20:33	WG1498749
Chromium	0.00596		0.00149	0.00200	1	06/27/2020 20:33	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:48	WG1498724
Iron	9.23		0.0489	0.100	1	06/27/2020 20:33	WG1498749
Iron,Dissolved	5.34		0.0489	0.100	1	06/25/2020 22:48	WG1498724
Lead	0.00469	J	0.00249	0.00500	1	06/27/2020 20:33	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:48	WG1498724
Manganese	1.61		0.00132	0.00500	1	06/27/2020 20:33	WG1498749
Manganese,Dissolved	1.62		0.00132	0.00500	1	06/25/2020 22:48	WG1498724
Potassium	1.11	J	0.534	2.00	1	06/27/2020 20:33	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:33	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:48	WG1498724
Sodium	206		0.630	2.00	1	06/27/2020 20:33	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.86		0.0314	0.100	1	06/25/2020 08:29	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*06/25/2020 08:29*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.282	1.25	25	06/23/2020 05:45	WG1497257
Benzene	0.439		0.00235	0.0250	25	06/23/2020 05:45	WG1497257
Bromodichloromethane	U		0.00340	0.0250	25	06/23/2020 05:45	WG1497257
Bromoform	U		0.00322	0.0250	25	06/23/2020 05:45	WG1497257
Bromomethane	U		0.0151	0.125	25	06/23/2020 05:45	WG1497257
n-Butylbenzene	U		0.00393	0.0250	25	06/23/2020 05:45	WG1497257
sec-Butylbenzene	U		0.00313	0.0250	25	06/23/2020 05:45	WG1497257
Carbon disulfide	0.00625	B J	0.00241	0.0250	25	06/23/2020 05:45	WG1497257
Carbon tetrachloride	U		0.00320	0.0250	25	06/25/2020 08:43	WG1498717

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00290	0.0250	25	06/23/2020 05:45	WG1497257
Chlorodibromomethane	U		0.00350	0.0250	25	06/23/2020 05:45	WG1497257
Chloroethane	U		0.00480	0.125	25	06/23/2020 05:45	WG1497257
Chloroform	U		0.00278	0.125	25	06/23/2020 05:45	WG1497257
Chloromethane	U		0.0240	0.0625	25	06/23/2020 05:45	WG1497257
1,2-Dibromoethane	U		0.00315	0.0250	25	06/23/2020 05:45	WG1497257
1,1-Dichloroethane	U		0.00250	0.0250	25	06/23/2020 05:45	WG1497257
1,2-Dichloroethane	U		0.00205	0.0250	25	06/23/2020 05:45	WG1497257
1,1-Dichloroethene	U		0.00470	0.0250	25	06/23/2020 05:45	WG1497257
cis-1,2-Dichloroethene	U		0.00315	0.0250	25	06/23/2020 05:45	WG1497257
trans-1,2-Dichloroethene	U		0.00373	0.0250	25	06/23/2020 05:45	WG1497257
1,2-Dichloropropane	U		0.00373	0.0250	25	06/23/2020 05:45	WG1497257
cis-1,3-Dichloropropene	U		0.00278	0.0250	25	06/23/2020 05:45	WG1497257
trans-1,3-Dichloropropene	U		0.00295	0.0250	25	06/23/2020 05:45	WG1497257
Ethylbenzene	0.0408		0.00343	0.0250	25	06/23/2020 05:45	WG1497257
Isopropylbenzene	0.00406	J	0.00263	0.0250	25	06/23/2020 05:45	WG1497257
p-Isopropyltoluene	U		0.00300	0.0250	25	06/23/2020 05:45	WG1497257
2-Butanone (MEK)	U		0.0298	0.250	25	06/23/2020 05:45	WG1497257
2-Hexanone	U		0.0197	0.250	25	06/23/2020 05:45	WG1497257
Methylene Chloride	U		0.0107	0.125	25	06/23/2020 05:45	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.250	25	06/23/2020 05:45	WG1497257
Methyl tert-butyl ether	1.30		0.00253	0.0250	25	06/23/2020 05:45	WG1497257
Naphthalene	U		0.0250	0.125	25	06/23/2020 05:45	WG1497257
n-Propylbenzene	0.00411	J	0.00248	0.0250	25	06/23/2020 05:45	WG1497257
Styrene	U		0.00295	0.0250	25	06/23/2020 05:45	WG1497257
1,1,1,2-Tetrachloroethane	U		0.00368	0.0250	25	06/23/2020 05:45	WG1497257
1,1,2,2-Tetrachloroethane	U		0.00333	0.0250	25	06/23/2020 05:45	WG1497257
Tetrachloroethene	U		0.00750	0.0250	25	06/23/2020 05:45	WG1497257
Toluene	U		0.00695	0.0250	25	06/23/2020 05:45	WG1497257
1,1,1-Trichloroethane	U		0.00373	0.0250	25	06/23/2020 05:45	WG1497257
1,1,2-Trichloroethane	U		0.00395	0.0250	25	06/23/2020 05:45	WG1497257
Trichloroethene	U		0.00475	0.0250	25	06/23/2020 05:45	WG1497257
1,2,4-Trimethylbenzene	0.0135	J	0.00805	0.0250	25	06/23/2020 05:45	WG1497257
1,3,5-Trimethylbenzene	0.00436	J	0.00260	0.0250	25	06/23/2020 05:45	WG1497257
Vinyl chloride	U		0.00585	0.0250	25	06/23/2020 05:45	WG1497257
o-Xylene	U		0.00435	0.0250	25	06/23/2020 05:45	WG1497257
m&p-Xylene	0.0148	J	0.0107	0.0500	25	06/23/2020 05:45	WG1497257
Xylenes, Total	0.0148	J	0.00435	0.0750	25	06/23/2020 05:45	WG1497257
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 05:45*	WG1497257
(S) Toluene-d8	*99.0*			*80.0-120*		*06/25/2020 08:43*	WG1498717
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 05:45*	WG1497257
(S) 4-Bromofluorobenzene	*92.1*			*77.0-126*		*06/25/2020 08:43*	WG1498717
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/23/2020 05:45*	WG1497257
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/25/2020 08:43*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.77		0.0247	0.100	1	06/28/2020 02:33	WG1497076
(S) o-Terphenyl	*92.6*			*31.0-160*		*06/28/2020 02:33*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1710		7.05	25.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/29/2020 16:52	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	232		3.79	10.0	10	06/26/2020 09:36	WG1498057
Fluoride	0.778		0.0640	0.150	1	06/26/2020 08:43	WG1498057
Sulfate	446		5.94	50.0	10	06/26/2020 09:36	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00356		0.000735	0.00200	1	06/27/2020 20:36	WG1498749
Arsenic,Dissolved	0.00328		0.000735	0.00200	1	06/25/2020 22:52	WG1498724
Barium	0.0676		0.00778	0.0200	1	06/27/2020 20:36	WG1498749
Barium,Dissolved	0.0680		0.00778	0.0200	1	06/25/2020 22:52	WG1498724
Calcium	201		0.480	1.00	1	06/27/2020 20:36	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:36	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:52	WG1498724
Iron	0.238		0.0489	0.100	1	06/27/2020 20:36	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/25/2020 22:52	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:36	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:52	WG1498724
Manganese	0.133		0.00132	0.00500	1	06/27/2020 20:36	WG1498749
Manganese,Dissolved	0.124		0.00132	0.00500	1	06/25/2020 22:52	WG1498724
Potassium	1.13	J	0.534	2.00	1	06/27/2020 20:36	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:36	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:52	WG1498724
Sodium	130		0.630	2.00	1	06/27/2020 20:36	WG1498749

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 06:04	WG1497257
Benzene	0.0184		0.0000941	0.00100	1	06/23/2020 06:04	WG1497257
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 06:04	WG1497257
Bromoform	U		0.000129	0.00100	1	06/23/2020 06:04	WG1497257
Bromomethane	U		0.000605	0.00500	1	06/23/2020 06:04	WG1497257
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 06:04	WG1497257
sec-Butylbenzene	0.00611		0.000125	0.00100	1	06/23/2020 06:04	WG1497257
Carbon disulfide	0.00108	B	0.0000962	0.00100	1	06/23/2020 06:04	WG1497257
Carbon tetrachloride	U		0.000128	0.00100	1	06/25/2020 09:02	WG1498717
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 06:04	WG1497257
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 06:04	WG1497257
Chloroethane	U		0.000192	0.00500	1	06/23/2020 06:04	WG1497257
Chloroform	U		0.000111	0.00500	1	06/23/2020 06:04	WG1497257
Chloromethane	U		0.000960	0.00250	1	06/23/2020 06:04	WG1497257
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 06:04	WG1497257
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 06:04	WG1497257

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 06:04	WG1497257
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 06:04	WG1497257
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 06:04	WG1497257
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 06:04	WG1497257
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 06:04	WG1497257
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 06:04	WG1497257
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 06:04	WG1497257
Ethylbenzene	0.00185		0.000137	0.00100	1	06/23/2020 06:04	WG1497257
Isopropylbenzene	0.0254		0.000105	0.00100	1	06/23/2020 06:04	WG1497257
p-Isopropyltoluene	0.000341	J	0.000120	0.00100	1	06/23/2020 06:04	WG1497257
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 06:04	WG1497257
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 06:04	WG1497257
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 06:04	WG1497257
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 06:04	WG1497257
Methyl tert-butyl ether	0.0727		0.000101	0.00100	1	06/23/2020 06:04	WG1497257
Naphthalene	U		0.00100	0.00500	1	06/23/2020 06:04	WG1497257
n-Propylbenzene	0.00881		0.0000993	0.00100	1	06/23/2020 06:04	WG1497257
Styrene	U		0.000118	0.00100	1	06/23/2020 06:04	WG1497257
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 06:04	WG1497257
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 06:04	WG1497257
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 06:04	WG1497257
Toluene	0.00557		0.000278	0.00100	1	06/23/2020 06:04	WG1497257
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 06:04	WG1497257
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 06:04	WG1497257
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 06:04	WG1497257
1,2,4-Trimethylbenzene	0.000958	J	0.000322	0.00100	1	06/23/2020 06:04	WG1497257
1,3,5-Trimethylbenzene	0.000329	J	0.000104	0.00100	1	06/23/2020 06:04	WG1497257
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 06:04	WG1497257
o-Xylene	0.00105		0.000174	0.00100	1	06/23/2020 06:04	WG1497257
m&p-Xylene	0.00270		0.000430	0.00200	1	06/23/2020 06:04	WG1497257
Xylenes, Total	0.00375		0.000174	0.00300	1	06/23/2020 06:04	WG1497257
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 06:04*	WG1497257
(S) Toluene-d8	*94.8*			*80.0-120*		*06/25/2020 09:02*	WG1498717
(S) 4-Bromofluorobenzene	*126*			*77.0-126*		*06/23/2020 06:04*	WG1497257
(S) 4-Bromofluorobenzene	*90.6*			*77.0-126*		*06/25/2020 09:02*	WG1498717
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*06/23/2020 06:04*	WG1497257
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/25/2020 09:02*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.63		0.0247	0.100	1	06/28/2020 02:58	WG1497076
(S) o-Terphenyl	*91.1*			*31.0-160*		*06/28/2020 02:58*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	727		3.75	13.3	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 16:57	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	73.2		0.379	1.00	1	06/26/2020 09:54	WG1498057
Fluoride	0.323		0.0640	0.150	1	06/26/2020 09:54	WG1498057
Sulfate	109		2.97	25.0	5	06/26/2020 10:48	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00301		0.000735	0.00200	1	06/27/2020 20:40	WG1498749
Arsenic,Dissolved	0.00295		0.000735	0.00200	1	06/25/2020 22:55	WG1498724
Barium	0.209		0.00778	0.0200	1	06/27/2020 20:40	WG1498749
Barium,Dissolved	0.207		0.00778	0.0200	1	06/25/2020 22:55	WG1498724
Calcium	138		0.480	1.00	1	06/27/2020 20:40	WG1498749
Chromium	0.00275		0.00149	0.00200	1	06/27/2020 20:40	WG1498749
Chromium,Dissolved	0.00258		0.00149	0.00200	1	06/25/2020 22:55	WG1498724
Iron	0.168		0.0489	0.100	1	06/27/2020 20:40	WG1498749
Iron,Dissolved	0.169		0.0489	0.100	1	06/25/2020 22:55	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:40	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:55	WG1498724
Manganese	0.229		0.00132	0.00500	1	06/27/2020 20:40	WG1498749
Manganese,Dissolved	0.227		0.00132	0.00500	1	06/25/2020 22:55	WG1498724
Potassium	7.77		0.534	2.00	1	06/27/2020 20:40	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:40	WG1498749
Selenium,Dissolved	0.000815	J	0.000657	0.00200	1	06/25/2020 22:55	WG1498724
Sodium	60.7		0.630	2.00	1	06/27/2020 20:40	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.97		0.0314	0.100	1	06/25/2020 08:52	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*06/25/2020 08:52*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	06/25/2020 09:22	WG1498717
Benzene	0.414		0.000941	0.0100	10	06/25/2020 09:22	WG1498717
Bromodichloromethane	U		0.00136	0.0100	10	06/25/2020 09:22	WG1498717
Bromoform	U		0.00129	0.0100	10	06/25/2020 09:22	WG1498717
Bromomethane	U		0.00605	0.0500	10	06/25/2020 09:22	WG1498717
n-Butylbenzene	0.00233	J	0.00157	0.0100	10	06/25/2020 09:22	WG1498717
sec-Butylbenzene	0.00426	J	0.00125	0.0100	10	06/25/2020 09:22	WG1498717
Carbon disulfide	0.0193		0.000962	0.0100	10	06/25/2020 09:22	WG1498717
Carbon tetrachloride	U		0.00128	0.0100	10	06/25/2020 09:22	WG1498717

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00116	0.0100	10	06/25/2020 09:22	WG1498717
Chlorodibromomethane	U		0.00140	0.0100	10	06/25/2020 09:22	WG1498717
Chloroethane	U		0.00192	0.0500	10	06/25/2020 09:22	WG1498717
Chloroform	U		0.00111	0.0500	10	06/25/2020 09:22	WG1498717
Chloromethane	U		0.00960	0.0250	10	06/25/2020 09:22	WG1498717
1,2-Dibromoethane	U		0.00126	0.0100	10	06/25/2020 09:22	WG1498717
1,1-Dichloroethane	U		0.00100	0.0100	10	06/25/2020 09:22	WG1498717
1,2-Dichloroethane	U		0.000819	0.0100	10	06/25/2020 09:22	WG1498717
1,1-Dichloroethene	U		0.00188	0.0100	10	06/25/2020 09:22	WG1498717
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	06/25/2020 09:22	WG1498717
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	06/25/2020 09:22	WG1498717
1,2-Dichloropropane	U		0.00149	0.0100	10	06/25/2020 09:22	WG1498717
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	06/25/2020 09:22	WG1498717
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	06/25/2020 09:22	WG1498717
Ethylbenzene	0.0866		0.00137	0.0100	10	06/25/2020 09:22	WG1498717
Isopropylbenzene	0.0139		0.00105	0.0100	10	06/25/2020 09:22	WG1498717
p-Isopropyltoluene	0.00193	J	0.00120	0.0100	10	06/25/2020 09:22	WG1498717
2-Butanone (MEK)	U		0.0119	0.100	10	06/25/2020 09:22	WG1498717
2-Hexanone	U		0.00787	0.100	10	06/25/2020 09:22	WG1498717
Methylene Chloride	U		0.00430	0.0500	10	06/25/2020 09:22	WG1498717
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	06/25/2020 09:22	WG1498717
Methyl tert-butyl ether	0.379		0.00101	0.0100	10	06/25/2020 09:22	WG1498717
Naphthalene	U		0.0100	0.0500	10	06/25/2020 09:22	WG1498717
n-Propylbenzene	0.0249		0.000993	0.0100	10	06/25/2020 09:22	WG1498717
Styrene	U		0.00118	0.0100	10	06/25/2020 09:22	WG1498717
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	06/25/2020 09:22	WG1498717
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	06/25/2020 09:22	WG1498717
Tetrachloroethene	U		0.00300	0.0100	10	06/25/2020 09:22	WG1498717
Toluene	0.00330	J	0.00278	0.0100	10	06/25/2020 09:22	WG1498717
1,1,1-Trichloroethane	U		0.00149	0.0100	10	06/25/2020 09:22	WG1498717
1,1,2-Trichloroethane	U		0.00158	0.0100	10	06/25/2020 09:22	WG1498717
Trichloroethene	U		0.00190	0.0100	10	06/25/2020 09:22	WG1498717
1,2,4-Trimethylbenzene	0.149		0.00322	0.0100	10	06/25/2020 09:22	WG1498717
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	06/25/2020 09:22	WG1498717
Vinyl chloride	U		0.00234	0.0100	10	06/25/2020 09:22	WG1498717
o-Xylene	0.00630	J	0.00174	0.0100	10	06/25/2020 09:22	WG1498717
m&p-Xylene	0.0721		0.00430	0.0200	10	06/25/2020 09:22	WG1498717
Xylenes, Total	0.0784		0.00174	0.0300	10	06/25/2020 09:22	WG1498717
(S) Toluene-d8	*101*			*80.0-120*		*06/25/2020 09:22*	WG1498717
(S) 4-Bromofluorobenzene	*94.2*			*77.0-126*		*06/25/2020 09:22*	WG1498717
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/25/2020 09:22*	WG1498717

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.19		0.123	0.500	5	06/28/2020 03:24	WG1497076
(S) o-Terphenyl	*90.5*			*31.0-160*		*06/28/2020 03:24*	WG1497076

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1070		5.64	20.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0979	J	0.0500	0.100	1	06/29/2020 17:00	WG1499266

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/27/2020 20:45	WG1500401

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	188		1.90	5.00	5	06/26/2020 11:42	WG1498057
Fluoride	1.13		0.0640	0.150	1	06/26/2020 11:06	WG1498057
Sulfate	1.16	J	0.594	5.00	1	06/26/2020 11:06	WG1498057

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/23/2020 13:08	WG1496609
Mercury,Dissolved	U		0.000100	0.000200	1	06/22/2020 18:26	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.250		0.0254	0.200	1	06/25/2020 21:51	WG1498738
Boron,Dissolved	0.263		0.0254	0.200	1	06/25/2020 23:34	WG1498718

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00235		0.000735	0.00200	1	06/27/2020 20:43	WG1498749
Arsenic,Dissolved	0.00213		0.000735	0.00200	1	06/25/2020 22:59	WG1498724
Barium	1.99		0.00778	0.0200	1	06/27/2020 20:43	WG1498749
Barium,Dissolved	1.92		0.00778	0.0200	1	06/25/2020 22:59	WG1498724
Cadmium	U		0.000478	0.00100	1	06/27/2020 20:43	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 22:59	WG1498724
Calcium	136		0.480	1.00	1	06/27/2020 20:43	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:43	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 22:59	WG1498724
Cobalt	U		0.000477	0.00200	1	06/27/2020 20:43	WG1498749
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 22:59	WG1498724
Iron	0.748		0.0489	0.100	1	06/27/2020 20:43	WG1498749
Iron,Dissolved	0.615		0.0489	0.100	1	06/25/2020 22:59	WG1498724
Lead	U		0.00249	0.00500	1	06/27/2020 20:43	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 22:59	WG1498724
Manganese	0.306		0.00132	0.00500	1	06/27/2020 20:43	WG1498749
Manganese,Dissolved	0.303		0.00132	0.00500	1	06/25/2020 22:59	WG1498724
Nickel	0.00565		0.000952	0.00200	1	06/27/2020 20:43	WG1498749
Nickel,Dissolved	0.00624		0.000952	0.00200	1	06/25/2020 22:59	WG1498724

Received by OCD: 6/23/2021 4:05:29 PM

MW-06
Collected date/time: 06/17/20 12:45
L1231128

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	0.842	J	0.534	2.00	1	06/27/2020 20:43	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:43	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 22:59	WG1498724
Sodium	155		0.630	2.00	1	06/27/2020 20:43	WG1498749
Uranium	U		0.00754	0.0200	1	06/27/2020 20:43	WG1498749
Uranium,Dissolved	U		0.00754	0.0200	1	06/25/2020 22:59	WG1498724
Vanadium	U		0.000986	0.00500	1	06/27/2020 20:43	WG1498749
Vanadium,Dissolved	0.00117	J	0.000986	0.00500	1	06/25/2020 22:59	WG1498724

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	8.44		0.0314	0.100	1	06/25/2020 09:15	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*		*06/25/2020 09:15*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:05	WG1497261
Benzene	1.18		0.000941	0.0100	10	06/26/2020 00:28	WG1499394
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:05	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:05	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:05	WG1497261
n-Butylbenzene	0.00824	J4	0.000157	0.00100	1	06/23/2020 02:05	WG1497261
sec-Butylbenzene	0.00857		0.000125	0.00100	1	06/23/2020 02:05	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 02:05	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 02:05	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:05	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:05	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:05	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:05	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:05	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:05	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:05	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:05	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:05	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:05	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:05	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:05	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:05	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:05	WG1497261
Ethylbenzene	0.00717		0.000137	0.00100	1	06/23/2020 02:05	WG1497261
Isopropylbenzene	0.0552		0.000105	0.00100	1	06/23/2020 02:05	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 02:05	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:05	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:05	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:05	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 02:05	WG1497261
Methyl tert-butyl ether	1.62		0.00101	0.0100	10	06/26/2020 00:28	WG1499394
Naphthalene	0.167		0.00100	0.00500	1	06/23/2020 02:05	WG1497261
n-Propylbenzene	0.0851		0.0000993	0.00100	1	06/23/2020 02:05	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 02:05	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:05	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:05	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:05	WG1497261

Released to Imaging: 11/21/2023 10:16:55 AM

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	0.00581		0.000278	0.00100	1	06/23/2020 02:05	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:05	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:05	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:05	WG1497261
1,2,4-Trimethylbenzene	0.000705	J	0.000322	0.00100	1	06/23/2020 02:05	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 02:05	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:05	WG1497261
o-Xylene	0.00239		0.000174	0.00100	1	06/23/2020 02:05	WG1497261
m&p-Xylene	0.0121		0.000430	0.00200	1	06/23/2020 02:05	WG1497261
Xylenes, Total	0.0145		0.000174	0.00300	1	06/23/2020 02:05	WG1497261
(S) Toluene-d8	*95.4*			*80.0-120*		*06/23/2020 02:05*	WG1497261
(S) Toluene-d8	*109*			*80.0-120*		*06/26/2020 00:28*	WG1499394
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/23/2020 02:05*	WG1497261
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/26/2020 00:28*	WG1499394
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*06/23/2020 02:05*	WG1497261
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/26/2020 00:28*	WG1499394

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.19		0.123	0.500	5	06/29/2020 08:11	WG1497082
(S) o-Terphenyl	*71.1*			*31.0-160*		*06/29/2020 08:11*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2610		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.250	0.500	5	06/29/2020 17:01	WG1499266

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.0360	0.100	20	06/27/2020 20:46	WG1500401

Sample Narrative:

L1231128-19 WG1500401: Diluted due to sulfide.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	149		1.90	5.00	5	06/26/2020 12:18	WG1498057
Fluoride	1.10		0.320	0.750	5	06/26/2020 12:18	WG1498057
Sulfate	1310		59.4	500	100	06/26/2020 12:35	WG1498057

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U	J6	0.000100	0.000200	1	06/23/2020 21:41	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/22/2020 18:28	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	1.32		0.0254	0.200	1	06/25/2020 21:54	WG1498738
Boron,Dissolved	1.35		0.0254	0.200	1	06/26/2020 08:09	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00705		0.000735	0.00200	1	06/27/2020 20:47	WG1498749
Arsenic,Dissolved	0.00684		0.000735	0.00200	1	06/25/2020 23:02	WG1498724
Barium	0.0449		0.00778	0.0200	1	06/27/2020 20:47	WG1498749
Barium,Dissolved	0.0421		0.00778	0.0200	1	06/25/2020 23:02	WG1498724
Cadmium	U		0.000478	0.00100	1	06/27/2020 20:47	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/25/2020 23:02	WG1498724
Calcium	285		0.480	1.00	1	06/27/2020 20:47	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:47	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/25/2020 23:02	WG1498724
Cobalt	0.000802	J	0.000477	0.00200	1	06/27/2020 20:47	WG1498749
Cobalt,Dissolved	U		0.000477	0.00200	1	06/25/2020 23:02	WG1498724
Iron	0.122		0.0489	0.100	1	06/27/2020 20:47	WG1498749
Iron,Dissolved	0.0711	J	0.0489	0.100	1	06/25/2020 23:02	WG1498724
Lead	0.0117		0.00249	0.00500	1	06/27/2020 20:47	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/25/2020 23:02	WG1498724
Manganese	0.708		0.00132	0.00500	1	06/27/2020 20:47	WG1498749

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.743		0.00132	0.00500	1	06/25/2020 23:02	WG1498724
Nickel	0.00624		0.000952	0.00200	1	06/27/2020 20:47	WG1498749
Nickel,Dissolved	0.00559		0.000952	0.00200	1	06/25/2020 23:02	WG1498724
Potassium	4.23		0.534	2.00	1	06/27/2020 20:47	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:47	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/25/2020 23:02	WG1498724
Sodium	109		0.630	2.00	1	06/27/2020 20:47	WG1498749
Uranium	U		0.00754	0.0200	1	06/27/2020 20:47	WG1498749
Uranium,Dissolved	U		0.00754	0.0200	1	06/25/2020 23:02	WG1498724
Vanadium	0.00364	J	0.000986	0.00500	1	06/27/2020 20:47	WG1498749
Vanadium,Dissolved	0.00388	J	0.000986	0.00500	1	06/25/2020 23:02	WG1498724

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.94	V3	0.0314	0.100	1	06/25/2020 19:22	WG1499077
(S) a,a,a-Trifluorotoluene(FID)	*94.0*			*78.0-120*		*06/25/2020 19:22*	WG1499077

Sample Narrative:

L1231128-19 WG1499077: IS/SURR failure due to matrix interference. No more pristines to re-run.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/26/2020 00:48	WG1499394
Benzene	0.397		0.000471	0.00500	5	06/26/2020 00:48	WG1499394
Bromodichloromethane	U		0.000680	0.00500	5	06/26/2020 00:48	WG1499394
Bromoform	U		0.000645	0.00500	5	06/26/2020 00:48	WG1499394
Bromomethane	U		0.00303	0.0250	5	06/26/2020 00:48	WG1499394
n-Butylbenzene	0.00113	J	0.000785	0.00500	5	06/26/2020 00:48	WG1499394
sec-Butylbenzene	0.00221	J	0.000625	0.00500	5	06/26/2020 00:48	WG1499394
Carbon disulfide	0.000607	J	0.000481	0.00500	5	06/26/2020 00:48	WG1499394
Carbon tetrachloride	U		0.000640	0.00500	5	06/26/2020 00:48	WG1499394
Chlorobenzene	U	J4	0.000580	0.00500	5	06/26/2020 00:48	WG1499394
Chlorodibromomethane	U		0.000700	0.00500	5	06/26/2020 00:48	WG1499394
Chloroethane	U		0.000960	0.0250	5	06/26/2020 00:48	WG1499394
Chloroform	0.00390	J	0.000555	0.0250	5	06/26/2020 00:48	WG1499394
Chloromethane	U		0.00480	0.0125	5	06/26/2020 00:48	WG1499394
1,2-Dibromoethane	U		0.000630	0.00500	5	06/26/2020 00:48	WG1499394
1,1-Dichloroethane	U		0.000500	0.00500	5	06/26/2020 00:48	WG1499394
1,2-Dichloroethane	U		0.000409	0.00500	5	06/26/2020 00:48	WG1499394
1,1-Dichloroethene	U		0.000940	0.00500	5	06/26/2020 00:48	WG1499394
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/26/2020 00:48	WG1499394
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/26/2020 00:48	WG1499394
1,2-Dichloropropane	U		0.000745	0.00500	5	06/26/2020 00:48	WG1499394
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/26/2020 00:48	WG1499394
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/26/2020 00:48	WG1499394
Ethylbenzene	0.0201		0.000685	0.00500	5	06/26/2020 00:48	WG1499394
Isopropylbenzene	0.0246		0.000525	0.00500	5	06/26/2020 00:48	WG1499394
p-Isopropyltoluene	0.00154	J	0.000600	0.00500	5	06/26/2020 00:48	WG1499394
2-Butanone (MEK)	U		0.00595	0.0500	5	06/26/2020 00:48	WG1499394
2-Hexanone	U		0.00394	0.0500	5	06/26/2020 00:48	WG1499394
Methylene Chloride	U		0.00215	0.0250	5	06/26/2020 00:48	WG1499394
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/26/2020 00:48	WG1499394
Methyl tert-butyl ether	0.194		0.000505	0.00500	5	06/26/2020 00:48	WG1499394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Naphthalene	0.0157	J	0.00500	0.0250	5	06/26/2020 00:48	WG1499394
n-Propylbenzene	0.0241		0.000497	0.00500	5	06/26/2020 00:48	WG1499394
Styrene	U		0.000590	0.00500	5	06/26/2020 00:48	WG1499394
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/26/2020 00:48	WG1499394
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/26/2020 00:48	WG1499394
Tetrachloroethene	U	J4	0.00150	0.00500	5	06/26/2020 00:48	WG1499394
Toluene	0.0126		0.00139	0.00500	5	06/26/2020 00:48	WG1499394
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/26/2020 00:48	WG1499394
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/26/2020 00:48	WG1499394
Trichloroethene	U		0.000950	0.00500	5	06/26/2020 00:48	WG1499394
1,2,4-Trimethylbenzene	0.0527		0.00161	0.00500	5	06/26/2020 00:48	WG1499394
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/26/2020 00:48	WG1499394
Vinyl chloride	U		0.00117	0.00500	5	06/26/2020 00:48	WG1499394
o-Xylene	0.00154	J	0.000870	0.00500	5	06/26/2020 00:48	WG1499394
m&p-Xylene	0.0901		0.00215	0.0100	5	06/26/2020 00:48	WG1499394
Xylenes, Total	0.0916		0.000870	0.0150	5	06/26/2020 00:48	WG1499394
(S) Toluene-d8	*109*			*80.0-120*		*06/26/2020 00:48*	WG1499394
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/26/2020 00:48*	WG1499394
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/26/2020 00:48*	WG1499394

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.91		0.123	0.500	5	06/29/2020 10:28	WG1497082
(S) o-Terphenyl	*142*			*31.0-160*		*06/29/2020 10:28*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2900		14.1	50.0	1	06/24/2020 21:57	WG1498145

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 17:02	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	201		37.9	100	100	06/26/2020 13:11	WG1498057
Fluoride	1.33		0.0640	0.150	1	06/26/2020 12:53	WG1498057
Sulfate	1340		59.4	500	100	06/26/2020 13:11	WG1498057

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0360		0.000735	0.00200	1	06/27/2020 20:50	WG1498749
Arsenic,Dissolved	0.0357		0.000735	0.00200	1	06/26/2020 13:58	WG1498726
Barium	0.0184	J	0.00778	0.0200	1	06/27/2020 20:50	WG1498749
Barium,Dissolved	0.0178	J	0.00778	0.0200	1	06/26/2020 13:58	WG1498726
Calcium	366		0.480	1.00	1	06/27/2020 20:50	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 20:50	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 13:58	WG1498726
Iron	0.0703	J	0.0489	0.100	1	06/27/2020 20:50	WG1498749
Iron,Dissolved	0.0695	J	0.0489	0.100	1	06/26/2020 13:58	WG1498726
Lead	U		0.00249	0.00500	1	06/27/2020 20:50	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 13:58	WG1498726
Manganese	0.369		0.00132	0.00500	1	06/27/2020 20:50	WG1498749
Manganese,Dissolved	0.364		0.00132	0.00500	1	06/26/2020 13:58	WG1498726
Potassium	U		0.534	2.00	1	06/27/2020 20:50	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 20:50	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 13:58	WG1498726
Sodium	184		0.630	2.00	1	06/27/2020 20:50	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.302	B	0.0314	0.100	1	06/25/2020 09:38	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*06/25/2020 09:38*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:52	WG1497261
Benzene	0.00112		0.0000941	0.00100	1	06/23/2020 02:52	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:52	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:52	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:52	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 02:52	WG1497261
sec-Butylbenzene	0.00133		0.000125	0.00100	1	06/23/2020 02:52	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 02:52	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 02:52	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:52	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:52	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:52	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:52	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:52	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:52	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:52	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:52	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:52	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:52	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:52	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:52	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:52	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:52	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 02:52	WG1497261
Isopropylbenzene	0.0103		0.000105	0.00100	1	06/23/2020 02:52	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 02:52	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:52	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:52	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:52	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 02:52	WG1497261
Methyl tert-butyl ether	0.00350		0.000101	0.00100	1	06/23/2020 02:52	WG1497261
Naphthalene	0.00202	J	0.00100	0.00500	1	06/23/2020 02:52	WG1497261
n-Propylbenzene	0.000566	J	0.0000993	0.00100	1	06/23/2020 02:52	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 02:52	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:52	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:52	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:52	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 02:52	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:52	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:52	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:52	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 02:52	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 02:52	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:52	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 02:52	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 02:52	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 02:52	WG1497261
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 02:52*	WG1497261
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*06/23/2020 02:52*	WG1497261
(S) 1,2-Dichloroethane-d4	*126*			*70.0-130*		*06/23/2020 02:52*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.97		0.0247	0.100	1	06/29/2020 05:30	WG1497082
(S) o-Terphenyl	*86.8*			*31.0-160*		*06/29/2020 05:30*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	3720		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		2.50	5.00	50	06/29/2020 17:04	WG1499266

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.0360	0.100	20	06/27/2020 20:47	WG1500401

Sample Narrative:

L1231128-21 WG1500401: Diluted due to sulfide.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	206		19.0	50.0	50	06/27/2020 05:20	WG1498064
Fluoride	0.778		0.0640	0.150	1	06/27/2020 05:01	WG1498064
Sulfate	1770		29.7	250	50	06/27/2020 05:20	WG1498064

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 21:48	WG1496610
Mercury,Dissolved	U	J6	0.000100	0.000200	1	06/22/2020 17:20	WG1496615

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.447		0.0254	0.200	1	06/25/2020 21:58	WG1498738
Boron,Dissolved	0.454		0.0254	0.200	1	06/26/2020 08:12	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00590		0.000735	0.00200	1	06/27/2020 21:07	WG1498749
Arsenic,Dissolved	0.00557		0.000735	0.00200	1	06/26/2020 14:12	WG1498726
Barium	0.0194	J	0.00778	0.0200	1	06/27/2020 21:07	WG1498749
Barium,Dissolved	0.0188	J	0.00778	0.0200	1	06/26/2020 14:12	WG1498726
Cadmium	U		0.000478	0.00100	1	06/27/2020 21:07	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 14:12	WG1498726
Calcium	418		0.480	1.00	1	06/27/2020 21:07	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 21:07	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:12	WG1498726
Cobalt	U		0.000477	0.00200	1	06/27/2020 21:07	WG1498749
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 14:12	WG1498726
Iron	U		0.0489	0.100	1	06/27/2020 21:07	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:12	WG1498726
Lead	U		0.00249	0.00500	1	06/27/2020 21:07	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:12	WG1498726
Manganese	0.237		0.00132	0.00500	1	06/27/2020 21:07	WG1498749

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Manganese,Dissolved	0.240		0.00132	0.00500	1	06/26/2020 14:12	WG1498726
Nickel	0.00132	J	0.000952	0.00200	1	06/27/2020 21:07	WG1498749
Nickel,Dissolved	0.00164	J	0.000952	0.00200	1	06/26/2020 14:12	WG1498726
Potassium	U		0.534	2.00	1	06/27/2020 21:07	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 21:07	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:12	WG1498726
Sodium	178		0.630	2.00	1	06/27/2020 21:07	WG1498749
Uranium	U		0.00754	0.0200	1	06/27/2020 21:07	WG1498749
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 14:12	WG1498726
Vanadium	U		0.000986	0.00500	1	06/27/2020 21:07	WG1498749
Vanadium,Dissolved	U		0.000986	0.00500	1	06/26/2020 14:12	WG1498726

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.466		0.0314	0.100	1	06/25/2020 10:01	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*06/25/2020 10:01*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 03:16	WG1497261
Benzene	0.00187		0.0000941	0.00100	1	06/23/2020 03:16	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 03:16	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 03:16	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 03:16	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 03:16	WG1497261
sec-Butylbenzene	0.00171		0.000125	0.00100	1	06/23/2020 03:16	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 03:16	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 03:16	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 03:16	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 03:16	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 03:16	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 03:16	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 03:16	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 03:16	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 03:16	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 03:16	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 03:16	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 03:16	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 03:16	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 03:16	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 03:16	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 03:16	WG1497261
Ethylbenzene	0.000281	J	0.000137	0.00100	1	06/23/2020 03:16	WG1497261
Isopropylbenzene	0.0145		0.000105	0.00100	1	06/23/2020 03:16	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 03:16	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 03:16	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 03:16	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 03:16	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 03:16	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 03:16	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 03:16	WG1497261
n-Propylbenzene	0.000862	J	0.0000993	0.00100	1	06/23/2020 03:16	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 03:16	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 03:16	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 03:16	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 03:16	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 03:16	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 03:16	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 03:16	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 03:16	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 03:16	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 03:16	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 03:16	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 03:16	WG1497261
m&p-Xylene	0.00157	J	0.000430	0.00200	1	06/23/2020 03:16	WG1497261
Xylenes, Total	0.00157	J	0.000174	0.00300	1	06/23/2020 03:16	WG1497261
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 03:16*	WG1497261
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/23/2020 03:16*	WG1497261
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*		*06/23/2020 03:16*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.754		0.0247	0.100	1	06/29/2020 03:49	WG1497082
(S) o-Terphenyl	*88.4*			*31.0-160*		*06/29/2020 03:49*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1220		5.64	20.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/29/2020 17:05	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	98.8		0.379	1.00	1	06/27/2020 05:38	WG1498064
Fluoride	1.43		0.0640	0.150	1	06/27/2020 05:38	WG1498064
Sulfate	177		2.97	25.0	5	06/27/2020 05:57	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00808		0.000735	0.00200	1	06/27/2020 21:10	WG1498749
Arsenic,Dissolved	0.00881		0.000735	0.00200	1	06/26/2020 14:16	WG1498726
Barium	0.983		0.00778	0.0200	1	06/27/2020 21:10	WG1498749
Barium,Dissolved	0.923		0.00778	0.0200	1	06/26/2020 14:16	WG1498726
Calcium	243		0.480	1.00	1	06/27/2020 21:10	WG1498749
Chromium	0.00172	J	0.00149	0.00200	1	06/27/2020 21:10	WG1498749
Chromium,Dissolved	0.00163	J	0.00149	0.00200	1	06/26/2020 14:16	WG1498726
Iron	0.456		0.0489	0.100	1	06/27/2020 21:10	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:16	WG1498726
Lead	U		0.00249	0.00500	1	06/27/2020 21:10	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:16	WG1498726
Manganese	0.0818		0.00132	0.00500	1	06/27/2020 21:10	WG1498749
Manganese,Dissolved	0.0799		0.00132	0.00500	1	06/26/2020 14:16	WG1498726
Potassium	2.74		0.534	2.00	1	06/27/2020 21:10	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 21:10	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:16	WG1498726
Sodium	71.7		0.630	2.00	1	06/27/2020 21:10	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	25.6		1.57	5.00	50	06/25/2020 12:41	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*06/25/2020 12:41*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	06/23/2020 03:40	WG1497261
Benzene	7.41		0.00471	0.0500	50	06/23/2020 03:40	WG1497261
Bromodichloromethane	U		0.00680	0.0500	50	06/23/2020 03:40	WG1497261
Bromoform	U		0.00645	0.0500	50	06/23/2020 03:40	WG1497261
Bromomethane	U		0.0303	0.250	50	06/23/2020 03:40	WG1497261
n-Butylbenzene	U	J4	0.00785	0.0500	50	06/23/2020 03:40	WG1497261
sec-Butylbenzene	0.00775	J	0.00625	0.0500	50	06/23/2020 03:40	WG1497261
Carbon disulfide	U		0.00481	0.0500	50	06/23/2020 03:40	WG1497261
Carbon tetrachloride	U		0.00640	0.0500	50	06/23/2020 03:40	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00580	0.0500	50	06/23/2020 03:40	WG1497261
Chlorodibromomethane	U		0.00700	0.0500	50	06/23/2020 03:40	WG1497261
Chloroethane	U		0.00960	0.250	50	06/23/2020 03:40	WG1497261
Chloroform	U		0.00555	0.250	50	06/23/2020 03:40	WG1497261
Chloromethane	U		0.0480	0.125	50	06/23/2020 03:40	WG1497261
1,2-Dibromoethane	U		0.00630	0.0500	50	06/23/2020 03:40	WG1497261
1,1-Dichloroethane	U		0.00500	0.0500	50	06/23/2020 03:40	WG1497261
1,2-Dichloroethane	U		0.00409	0.0500	50	06/23/2020 03:40	WG1497261
1,1-Dichloroethene	U		0.00940	0.0500	50	06/23/2020 03:40	WG1497261
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	06/23/2020 03:40	WG1497261
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	06/23/2020 03:40	WG1497261
1,2-Dichloropropane	U		0.00745	0.0500	50	06/23/2020 03:40	WG1497261
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	06/23/2020 03:40	WG1497261
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	06/23/2020 03:40	WG1497261
Ethylbenzene	0.0282	J	0.00685	0.0500	50	06/23/2020 03:40	WG1497261
Isopropylbenzene	0.0329	J	0.00525	0.0500	50	06/23/2020 03:40	WG1497261
p-Isopropyltoluene	U		0.00600	0.0500	50	06/23/2020 03:40	WG1497261
2-Butanone (MEK)	U		0.0595	0.500	50	06/23/2020 03:40	WG1497261
2-Hexanone	U		0.0394	0.500	50	06/23/2020 03:40	WG1497261
Methylene Chloride	U		0.0215	0.250	50	06/23/2020 03:40	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	06/23/2020 03:40	WG1497261
Methyl tert-butyl ether	0.0234	J	0.00505	0.0500	50	06/23/2020 03:40	WG1497261
Naphthalene	U		0.0500	0.250	50	06/23/2020 03:40	WG1497261
n-Propylbenzene	0.0301	J	0.00497	0.0500	50	06/23/2020 03:40	WG1497261
Styrene	U		0.00590	0.0500	50	06/23/2020 03:40	WG1497261
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	06/23/2020 03:40	WG1497261
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	06/23/2020 03:40	WG1497261
Tetrachloroethene	U		0.0150	0.0500	50	06/23/2020 03:40	WG1497261
Toluene	0.0150	J	0.0139	0.0500	50	06/23/2020 03:40	WG1497261
1,1,1-Trichloroethane	U		0.00745	0.0500	50	06/23/2020 03:40	WG1497261
1,1,2-Trichloroethane	U		0.00790	0.0500	50	06/23/2020 03:40	WG1497261
Trichloroethene	U		0.00950	0.0500	50	06/23/2020 03:40	WG1497261
1,2,4-Trimethylbenzene	0.0443	J	0.0161	0.0500	50	06/23/2020 03:40	WG1497261
1,3,5-Trimethylbenzene	0.0247	J	0.00520	0.0500	50	06/23/2020 03:40	WG1497261
Vinyl chloride	U		0.0117	0.0500	50	06/23/2020 03:40	WG1497261
o-Xylene	U		0.00870	0.0500	50	06/23/2020 03:40	WG1497261
m&p-Xylene	0.237		0.0215	0.100	50	06/23/2020 03:40	WG1497261
Xylenes, Total	0.237		0.00870	0.150	50	06/23/2020 03:40	WG1497261
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 03:40*	WG1497261
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/23/2020 03:40*	WG1497261
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*06/23/2020 03:40*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	9.03		0.0247	0.100	1	06/29/2020 07:31	WG1497082
(S) o-Terphenyl	*96.8*			*31.0-160*		*06/29/2020 07:31*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2570		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		5.00	10.0	100	06/29/2020 17:06	WG1499266

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	471		19.0	50.0	50	06/27/2020 08:58	WG1498064
Fluoride	1.09		0.0640	0.150	1	06/27/2020 08:40	WG1498064
Sulfate	541		29.7	250	50	06/27/2020 08:58	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00296		0.000735	0.00200	1	06/27/2020 21:14	WG1498749
Arsenic,Dissolved	0.00315		0.000735	0.00200	1	06/26/2020 14:19	WG1498726
Barium	0.0482		0.00778	0.0200	1	06/27/2020 21:14	WG1498749
Barium,Dissolved	0.0464		0.00778	0.0200	1	06/26/2020 14:19	WG1498726
Calcium	292		0.480	1.00	1	06/27/2020 21:14	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 21:14	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:19	WG1498726
Iron	U		0.0489	0.100	1	06/27/2020 21:14	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:19	WG1498726
Lead	0.00396	J	0.00249	0.00500	1	06/27/2020 21:14	WG1498749
Lead,Dissolved	0.00263	J	0.00249	0.00500	1	06/26/2020 14:19	WG1498726
Manganese	0.0197		0.00132	0.00500	1	06/27/2020 21:14	WG1498749
Manganese,Dissolved	0.0207		0.00132	0.00500	1	06/26/2020 14:19	WG1498726
Potassium	0.933	J	0.534	2.00	1	06/27/2020 21:14	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 21:14	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:19	WG1498726
Sodium	299		0.630	2.00	1	06/27/2020 21:14	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	13.0	B	1.57	5.00	50	06/25/2020 13:26	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*06/25/2020 13:26*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	06/23/2020 04:04	WG1497261
Benzene	1.60		0.00471	0.0500	50	06/23/2020 04:04	WG1497261
Bromodichloromethane	U		0.00680	0.0500	50	06/23/2020 04:04	WG1497261
Bromoform	U		0.00645	0.0500	50	06/23/2020 04:04	WG1497261
Bromomethane	U		0.0303	0.250	50	06/23/2020 04:04	WG1497261
n-Butylbenzene	U	J4	0.00785	0.0500	50	06/23/2020 04:04	WG1497261
sec-Butylbenzene	U		0.00625	0.0500	50	06/23/2020 04:04	WG1497261
Carbon disulfide	U		0.00481	0.0500	50	06/23/2020 04:04	WG1497261
Carbon tetrachloride	U		0.00640	0.0500	50	06/23/2020 04:04	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00580	0.0500	50	06/23/2020 04:04	WG1497261
Chlorodibromomethane	U		0.00700	0.0500	50	06/23/2020 04:04	WG1497261
Chloroethane	U		0.00960	0.250	50	06/23/2020 04:04	WG1497261
Chloroform	U		0.00555	0.250	50	06/23/2020 04:04	WG1497261
Chloromethane	U		0.0480	0.125	50	06/23/2020 04:04	WG1497261
1,2-Dibromoethane	U		0.00630	0.0500	50	06/23/2020 04:04	WG1497261
1,1-Dichloroethane	U		0.00500	0.0500	50	06/23/2020 04:04	WG1497261
1,2-Dichloroethane	U		0.00409	0.0500	50	06/23/2020 04:04	WG1497261
1,1-Dichloroethene	U		0.00940	0.0500	50	06/23/2020 04:04	WG1497261
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	06/23/2020 04:04	WG1497261
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	06/23/2020 04:04	WG1497261
1,2-Dichloropropane	U		0.00745	0.0500	50	06/23/2020 04:04	WG1497261
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	06/23/2020 04:04	WG1497261
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	06/23/2020 04:04	WG1497261
Ethylbenzene	0.0545		0.00685	0.0500	50	06/23/2020 04:04	WG1497261
Isopropylbenzene	0.0906		0.00525	0.0500	50	06/23/2020 04:04	WG1497261
p-Isopropyltoluene	U		0.00600	0.0500	50	06/23/2020 04:04	WG1497261
2-Butanone (MEK)	U		0.0595	0.500	50	06/23/2020 04:04	WG1497261
2-Hexanone	U		0.0394	0.500	50	06/23/2020 04:04	WG1497261
Methylene Chloride	U		0.0215	0.250	50	06/23/2020 04:04	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	06/23/2020 04:04	WG1497261
Methyl tert-butyl ether	U		0.00505	0.0500	50	06/23/2020 04:04	WG1497261
Naphthalene	0.177	J	0.0500	0.250	50	06/23/2020 04:04	WG1497261
n-Propylbenzene	0.119		0.00497	0.0500	50	06/23/2020 04:04	WG1497261
Styrene	U		0.00590	0.0500	50	06/23/2020 04:04	WG1497261
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	06/23/2020 04:04	WG1497261
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	06/23/2020 04:04	WG1497261
Tetrachloroethene	U		0.0150	0.0500	50	06/23/2020 04:04	WG1497261
Toluene	0.153		0.0139	0.0500	50	06/23/2020 04:04	WG1497261
1,1,1-Trichloroethane	U		0.00745	0.0500	50	06/23/2020 04:04	WG1497261
1,1,2-Trichloroethane	U		0.00790	0.0500	50	06/23/2020 04:04	WG1497261
Trichloroethene	U		0.00950	0.0500	50	06/23/2020 04:04	WG1497261
1,2,4-Trimethylbenzene	0.222		0.0161	0.0500	50	06/23/2020 04:04	WG1497261
1,3,5-Trimethylbenzene	U		0.00520	0.0500	50	06/23/2020 04:04	WG1497261
Vinyl chloride	U		0.0117	0.0500	50	06/23/2020 04:04	WG1497261
o-Xylene	U		0.00870	0.0500	50	06/23/2020 04:04	WG1497261
m&p-Xylene	0.611		0.0215	0.100	50	06/23/2020 04:04	WG1497261
Xylenes, Total	0.611		0.00870	0.150	50	06/23/2020 04:04	WG1497261
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 04:04*	WG1497261
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/23/2020 04:04*	WG1497261
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*06/23/2020 04:04*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.45		0.0247	0.100	1	06/29/2020 05:50	WG1497082
(S) o-Terphenyl	*90.5*			*31.0-160*		*06/29/2020 05:50*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2290		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/30/2020 18:08	WG1499267

Sample Narrative:

L1231128-24 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	280		7.58	20.0	20	06/27/2020 09:34	WG1498064
Fluoride	1.19		0.0640	0.150	1	06/27/2020 09:16	WG1498064
Sulfate	524		11.9	100	20	06/27/2020 09:34	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0426		0.000735	0.00200	1	06/27/2020 21:17	WG1498749
Arsenic,Dissolved	0.0450		0.000735	0.00200	1	06/26/2020 14:22	WG1498726
Barium	0.0608		0.00778	0.0200	1	06/27/2020 21:17	WG1498749
Barium,Dissolved	0.0562		0.00778	0.0200	1	06/26/2020 14:22	WG1498726
Calcium	282		0.480	1.00	1	06/27/2020 21:17	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 21:17	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:22	WG1498726
Iron	U		0.0489	0.100	1	06/27/2020 21:17	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:22	WG1498726
Lead	U		0.00249	0.00500	1	06/27/2020 21:17	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:22	WG1498726
Manganese	0.00669		0.00132	0.00500	1	06/27/2020 21:17	WG1498749
Manganese,Dissolved	0.00690		0.00132	0.00500	1	06/26/2020 14:22	WG1498726
Potassium	0.973	J	0.534	2.00	1	06/27/2020 21:17	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 21:17	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:22	WG1498726
Sodium	235		0.630	2.00	1	06/27/2020 21:17	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	9.16		0.628	2.00	20	06/25/2020 13:49	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*06/25/2020 13:49*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/23/2020 04:28	WG1497261
Benzene	1.09		0.00188	0.0200	20	06/23/2020 04:28	WG1497261
Bromodichloromethane	U		0.00272	0.0200	20	06/23/2020 04:28	WG1497261
Bromoform	U		0.00258	0.0200	20	06/23/2020 04:28	WG1497261
Bromomethane	U		0.0121	0.100	20	06/23/2020 04:28	WG1497261
n-Butylbenzene	U	J4	0.00314	0.0200	20	06/23/2020 04:28	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.00250	0.0200	20	06/23/2020 04:28	WG1497261
Carbon disulfide	U		0.00192	0.0200	20	06/23/2020 04:28	WG1497261
Carbon tetrachloride	U		0.00256	0.0200	20	06/23/2020 04:28	WG1497261
Chlorobenzene	U		0.00232	0.0200	20	06/23/2020 04:28	WG1497261
Chlorodibromomethane	U		0.00280	0.0200	20	06/23/2020 04:28	WG1497261
Chloroethane	U		0.00384	0.100	20	06/23/2020 04:28	WG1497261
Chloroform	U		0.00222	0.100	20	06/23/2020 04:28	WG1497261
Chloromethane	U		0.0192	0.0500	20	06/23/2020 04:28	WG1497261
1,2-Dibromoethane	U		0.00252	0.0200	20	06/23/2020 04:28	WG1497261
1,1-Dichloroethane	U		0.00200	0.0200	20	06/23/2020 04:28	WG1497261
1,2-Dichloroethane	U		0.00164	0.0200	20	06/23/2020 04:28	WG1497261
1,1-Dichloroethene	U		0.00376	0.0200	20	06/23/2020 04:28	WG1497261
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/23/2020 04:28	WG1497261
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/23/2020 04:28	WG1497261
1,2-Dichloropropane	U		0.00298	0.0200	20	06/23/2020 04:28	WG1497261
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/23/2020 04:28	WG1497261
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/23/2020 04:28	WG1497261
Ethylbenzene	0.0506		0.00274	0.0200	20	06/23/2020 04:28	WG1497261
Isopropylbenzene	0.0647		0.00210	0.0200	20	06/23/2020 04:28	WG1497261
p-Isopropyltoluene	U		0.00240	0.0200	20	06/23/2020 04:28	WG1497261
2-Butanone (MEK)	U		0.0238	0.200	20	06/23/2020 04:28	WG1497261
2-Hexanone	U		0.0157	0.200	20	06/23/2020 04:28	WG1497261
Methylene Chloride	U		0.00860	0.100	20	06/23/2020 04:28	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/23/2020 04:28	WG1497261
Methyl tert-butyl ether	0.0672		0.00202	0.0200	20	06/23/2020 04:28	WG1497261
Naphthalene	0.177		0.0200	0.100	20	06/23/2020 04:28	WG1497261
n-Propylbenzene	0.105		0.00199	0.0200	20	06/23/2020 04:28	WG1497261
Styrene	U		0.00236	0.0200	20	06/23/2020 04:28	WG1497261
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/23/2020 04:28	WG1497261
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/23/2020 04:28	WG1497261
Tetrachloroethene	U		0.00600	0.0200	20	06/23/2020 04:28	WG1497261
Toluene	U		0.00556	0.0200	20	06/23/2020 04:28	WG1497261
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/23/2020 04:28	WG1497261
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/23/2020 04:28	WG1497261
Trichloroethene	U		0.00380	0.0200	20	06/23/2020 04:28	WG1497261
1,2,4-Trimethylbenzene	0.382		0.00644	0.0200	20	06/23/2020 04:28	WG1497261
1,3,5-Trimethylbenzene	0.0782		0.00208	0.0200	20	06/23/2020 04:28	WG1497261
Vinyl chloride	U		0.00468	0.0200	20	06/23/2020 04:28	WG1497261
o-Xylene	U		0.00348	0.0200	20	06/23/2020 04:28	WG1497261
m&p-Xylene	0.557		0.00860	0.0400	20	06/23/2020 04:28	WG1497261
Xylenes, Total	0.557		0.00348	0.0600	20	06/23/2020 04:28	WG1497261
(S) Toluene-d8	*102*			*80.0-120*		*06/23/2020 04:28*	WG1497261
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/23/2020 04:28*	WG1497261
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*06/23/2020 04:28*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.79		0.0247	0.100	1	06/29/2020 06:50	WG1497082
(S) o-Terphenyl	*83.7*			*31.0-160*		*06/29/2020 06:50*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2820		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/30/2020 18:09	WG1499267

Sample Narrative:

L1231128-25 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	233		19.0	50.0	50	06/27/2020 10:11	WG1498064
Fluoride	1.88		0.0640	0.150	1	06/27/2020 09:53	WG1498064
Sulfate	1070		29.7	250	50	06/27/2020 10:11	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00827		0.000735	0.00200	1	06/27/2020 21:20	WG1498749
Arsenic,Dissolved	0.00919		0.000735	0.00200	1	06/26/2020 14:46	WG1498726
Barium	0.0351		0.00778	0.0200	1	06/27/2020 21:20	WG1498749
Barium,Dissolved	0.0340		0.00778	0.0200	1	06/26/2020 14:46	WG1498726
Calcium	491		0.480	1.00	1	06/27/2020 21:20	WG1498749
Chromium	0.00257		0.00149	0.00200	1	06/27/2020 21:20	WG1498749
Chromium,Dissolved	0.00291		0.00149	0.00200	1	06/26/2020 14:46	WG1498726
Iron	0.181		0.0489	0.100	1	06/27/2020 21:20	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:46	WG1498726
Lead	U		0.00249	0.00500	1	06/27/2020 21:20	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:46	WG1498726
Manganese	0.208		0.00132	0.00500	1	06/27/2020 21:20	WG1498749
Manganese,Dissolved	0.213		0.00132	0.00500	1	06/26/2020 14:46	WG1498726
Potassium	3.11		0.534	2.00	1	06/27/2020 21:20	WG1498749
Selenium	0.00412		0.000657	0.00200	1	06/27/2020 21:20	WG1498749
Selenium,Dissolved	0.00299		0.000657	0.00200	1	06/26/2020 14:46	WG1498726
Sodium	163		0.630	2.00	1	06/27/2020 21:20	WG1498749

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	6.28		0.0314	0.100	1	06/25/2020 10:24	WG1498490
(S) a,a,a-Trifluorotoluene(FID)	*87.8*			*78.0-120*		*06/25/2020 10:24*	WG1498490

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/23/2020 04:52	WG1497261
Benzene	1.21		0.00188	0.0200	20	06/23/2020 04:52	WG1497261
Bromodichloromethane	U		0.00272	0.0200	20	06/23/2020 04:52	WG1497261
Bromoform	U		0.00258	0.0200	20	06/23/2020 04:52	WG1497261
Bromomethane	U		0.0121	0.100	20	06/23/2020 04:52	WG1497261
n-Butylbenzene	U	J4	0.00314	0.0200	20	06/23/2020 04:52	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.00250	0.0200	20	06/23/2020 04:52	WG1497261
Carbon disulfide	U		0.00192	0.0200	20	06/23/2020 04:52	WG1497261
Carbon tetrachloride	U		0.00256	0.0200	20	06/23/2020 04:52	WG1497261
Chlorobenzene	U		0.00232	0.0200	20	06/23/2020 04:52	WG1497261
Chlorodibromomethane	U		0.00280	0.0200	20	06/23/2020 04:52	WG1497261
Chloroethane	U		0.00384	0.100	20	06/23/2020 04:52	WG1497261
Chloroform	U		0.00222	0.100	20	06/23/2020 04:52	WG1497261
Chloromethane	U		0.0192	0.0500	20	06/23/2020 04:52	WG1497261
1,2-Dibromoethane	U		0.00252	0.0200	20	06/23/2020 04:52	WG1497261
1,1-Dichloroethane	U		0.00200	0.0200	20	06/23/2020 04:52	WG1497261
1,2-Dichloroethane	U		0.00164	0.0200	20	06/23/2020 04:52	WG1497261
1,1-Dichloroethene	U		0.00376	0.0200	20	06/23/2020 04:52	WG1497261
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/23/2020 04:52	WG1497261
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/23/2020 04:52	WG1497261
1,2-Dichloropropane	U		0.00298	0.0200	20	06/23/2020 04:52	WG1497261
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/23/2020 04:52	WG1497261
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/23/2020 04:52	WG1497261
Ethylbenzene	0.00622	J	0.00274	0.0200	20	06/23/2020 04:52	WG1497261
Isopropylbenzene	0.0262		0.00210	0.0200	20	06/23/2020 04:52	WG1497261
p-Isopropyltoluene	U		0.00240	0.0200	20	06/23/2020 04:52	WG1497261
2-Butanone (MEK)	U		0.0238	0.200	20	06/23/2020 04:52	WG1497261
2-Hexanone	U		0.0157	0.200	20	06/23/2020 04:52	WG1497261
Methylene Chloride	U		0.00860	0.100	20	06/23/2020 04:52	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/23/2020 04:52	WG1497261
Methyl tert-butyl ether	U		0.00202	0.0200	20	06/23/2020 04:52	WG1497261
Naphthalene	0.0519	J	0.0200	0.100	20	06/23/2020 04:52	WG1497261
n-Propylbenzene	0.0394		0.00199	0.0200	20	06/23/2020 04:52	WG1497261
Styrene	U		0.00236	0.0200	20	06/23/2020 04:52	WG1497261
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/23/2020 04:52	WG1497261
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/23/2020 04:52	WG1497261
Tetrachloroethene	U		0.00600	0.0200	20	06/23/2020 04:52	WG1497261
Toluene	0.0123	J	0.00556	0.0200	20	06/23/2020 04:52	WG1497261
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/23/2020 04:52	WG1497261
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/23/2020 04:52	WG1497261
Trichloroethene	U		0.00380	0.0200	20	06/23/2020 04:52	WG1497261
1,2,4-Trimethylbenzene	0.111		0.00644	0.0200	20	06/23/2020 04:52	WG1497261
1,3,5-Trimethylbenzene	0.0243		0.00208	0.0200	20	06/23/2020 04:52	WG1497261
Vinyl chloride	U		0.00468	0.0200	20	06/23/2020 04:52	WG1497261
o-Xylene	U		0.00348	0.0200	20	06/23/2020 04:52	WG1497261
m&p-Xylene	0.296		0.00860	0.0400	20	06/23/2020 04:52	WG1497261
Xylenes, Total	0.296		0.00348	0.0600	20	06/23/2020 04:52	WG1497261
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 04:52*	WG1497261
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/23/2020 04:52*	WG1497261
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*06/23/2020 04:52*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.54		0.0247	0.100	1	06/29/2020 07:10	WG1497082
(S) o-Terphenyl	*115*			*31.0-160*		*06/29/2020 07:10*	WG1497082

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acenaphthene	0.00190	J	0.000443	0.00500	5	06/23/2020 01:16	WG1496728
Acenaphthylene	U		0.000461	0.00500	5	06/23/2020 01:16	WG1496728
Acetophenone	U		0.00104	0.0500	5	06/23/2020 01:16	WG1496728
Anthracene	0.00137	J	0.000402	0.00500	5	06/23/2020 01:16	WG1496728
Atrazine	U		0.00128	0.0500	5	06/23/2020 01:16	WG1496728
Benzo(a)anthracene	U		0.000995	0.00500	5	06/23/2020 01:16	WG1496728
Benzaldehyde	U	J4	0.00845	0.0500	5	06/23/2020 01:16	WG1496728
Benzo(b)fluoranthene	U		0.000650	0.00500	5	06/23/2020 01:16	WG1496728
Benzo(k)fluoranthene	U		0.000600	0.00500	5	06/23/2020 01:16	WG1496728
Benzo(g,h,i)perylene	U		0.000605	0.00500	5	06/23/2020 01:16	WG1496728
Benzo(a)pyrene	U		0.000191	0.00100	5	06/23/2020 01:16	WG1496728
Biphenyl	U		0.00395	0.0500	5	06/23/2020 01:16	WG1496728
Bis(2-chlorethoxy)methane	U		0.000580	0.0500	5	06/23/2020 01:16	WG1496728
Bis(2-chloroethyl)ether	U		0.000685	0.0500	5	06/23/2020 01:16	WG1496728
2,2-Oxybis(1-Chloropropane)	U		0.00105	0.0500	5	06/23/2020 01:16	WG1496728
4-Bromophenyl-phenylether	U		0.000439	0.0500	5	06/23/2020 01:16	WG1496728
2-Chloronaphthalene	U		0.000324	0.00500	5	06/23/2020 01:16	WG1496728
4-Chlorophenyl-phenylether	U		0.000463	0.0500	5	06/23/2020 01:16	WG1496728
Caprolactam	U		0.00154	0.0500	5	06/23/2020 01:16	WG1496728
Carbazole	0.0264	J	0.000555	0.0500	5	06/23/2020 01:16	WG1496728
Chrysene	U		0.000650	0.00500	5	06/23/2020 01:16	WG1496728
Dibenz(a,h)anthracene	U		0.000322	0.00100	5	06/23/2020 01:16	WG1496728
Dibenzofuran	0.00396	J	0.000485	0.0500	5	06/23/2020 01:16	WG1496728
3,3-Dichlorobenzidine	U		0.00106	0.0500	5	06/23/2020 01:16	WG1496728
2,4-Dinitrotoluene	U		0.000491	0.0500	5	06/23/2020 01:16	WG1496728
2,6-Dinitrotoluene	U		0.00125	0.0500	5	06/23/2020 01:16	WG1496728
Fluoranthene	U		0.000510	0.00500	5	06/23/2020 01:16	WG1496728
Fluorene	0.00813		0.000422	0.00500	5	06/23/2020 01:16	WG1496728
Hexachlorobenzene	U		0.000378	0.00500	5	06/23/2020 01:16	WG1496728
Hexachloro-1,3-butadiene	U		0.000484	0.0500	5	06/23/2020 01:16	WG1496728
Hexachlorocyclopentadiene	U		0.000299	0.0500	5	06/23/2020 01:16	WG1496728
Hexachloroethane	U		0.000635	0.0500	5	06/23/2020 01:16	WG1496728
Indeno(1,2,3-cd)pyrene	U		0.00140	0.00500	5	06/23/2020 01:16	WG1496728
Isophorone	U		0.000715	0.0500	5	06/23/2020 01:16	WG1496728
1-Methylnaphthalene	0.0340		0.000395	0.00500	5	06/23/2020 01:16	WG1496728
2-Methylnaphthalene	U		0.000585	0.00500	5	06/23/2020 01:16	WG1496728
Naphthalene	0.0298		0.000795	0.00500	5	06/23/2020 01:16	WG1496728
Nitrobenzene	U		0.00148	0.0500	5	06/23/2020 01:16	WG1496728
n-Nitrosodiphenylamine	U		0.0119	0.0500	5	06/23/2020 01:16	WG1496728
n-Nitrosodi-n-propylamine	U		0.00131	0.0500	5	06/23/2020 01:16	WG1496728
Phenanthrene	0.0132		0.000560	0.00500	5	06/23/2020 01:16	WG1496728
Benzylbutyl phthalate	U		0.00383	0.0150	5	06/23/2020 01:16	WG1496728
Bis(2-ethylhexyl)phthalate	U		0.00448	0.0150	5	06/23/2020 01:16	WG1496728
Di-n-butyl phthalate	U		0.00227	0.0150	5	06/23/2020 01:16	WG1496728
Diethyl phthalate	U		0.00143	0.0150	5	06/23/2020 01:16	WG1496728
Dimethyl phthalate	U		0.00130	0.0150	5	06/23/2020 01:16	WG1496728
Di-n-octyl phthalate	U		0.00466	0.0150	5	06/23/2020 01:16	WG1496728
Pyrene	0.000746	J	0.000535	0.00500	5	06/23/2020 01:16	WG1496728
1,2,4-Trichlorobenzene	U		0.000349	0.0500	5	06/23/2020 01:16	WG1496728
4-Chloro-3-methylphenol	U		0.000655	0.0500	5	06/23/2020 01:16	WG1496728
2-Chlorophenol	U		0.000665	0.0500	5	06/23/2020 01:16	WG1496728
2,4-Dichlorophenol	U		0.000510	0.0500	5	06/23/2020 01:16	WG1496728
2,4-Dimethylphenol	0.0157	J	0.000318	0.0500	5	06/23/2020 01:16	WG1496728
4,6-Dinitro-2-methylphenol	U		0.00560	0.0500	5	06/23/2020 01:16	WG1496728
2,4-Dinitrophenol	U		0.0297	0.0500	5	06/23/2020 01:16	WG1496728
2-Nitrophenol	U		0.000585	0.0500	5	06/23/2020 01:16	WG1496728

MW-33
Collected date/time: 06/17/20 11:25
L1231128

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
2-Nitroaniline	U		0.000510	0.0500	5	06/23/2020 01:16	WG1496728
2-Methylphenol	U		0.000465	0.0500	5	06/23/2020 01:16	WG1496728
3&4-Methyl Phenol	U		0.000840	0.0500	5	06/23/2020 01:16	WG1496728
3-Nitroaniline	U		0.000435	0.0500	5	06/23/2020 01:16	WG1496728
4-Chloroaniline	U		0.00117	0.0500	5	06/23/2020 01:16	WG1496728
4-Nitroaniline	U		0.000455	0.0500	5	06/23/2020 01:16	WG1496728
4-Nitrophenol	U		0.000715	0.0500	5	06/23/2020 01:16	WG1496728
Pentachlorophenol	U		0.00157	0.0500	5	06/23/2020 01:16	WG1496728
Phenol	U		0.0217	0.0500	5	06/23/2020 01:16	WG1496728
2,4,5-Trichlorophenol	U		0.000545	0.0500	5	06/23/2020 01:16	WG1496728
2,4,6-Trichlorophenol	U		0.000500	0.0500	5	06/23/2020 01:16	WG1496728
(S) 2-Fluorophenol	*38.5*			*10.0-120*		*06/23/2020 01:16*	WG1496728
(S) Phenol-d5	*20.8*			*10.0-120*		*06/23/2020 01:16*	WG1496728
(S) Nitrobenzene-d5	*79.9*			*10.0-127*		*06/23/2020 01:16*	WG1496728
(S) 2-Fluorobiphenyl	*71.2*			*10.0-130*		*06/23/2020 01:16*	WG1496728
(S) 2,4,6-Tribromophenol	*89.0*			*10.0-155*		*06/23/2020 01:16*	WG1496728
(S) p-Terphenyl-d14	*76.7*			*10.0-128*		*06/23/2020 01:16*	WG1496728

Sample Narrative:

L1231128-25 WG1496728: Dilution due to matrix.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2210		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.250	0.500	5	06/30/2020 18:10	WG1499267

Sample Narrative:

L1231128-26 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.0360	0.100	20	06/27/2020 20:48	WG1500401

Sample Narrative:

L1231128-26 WG1500401: Diluted due to sulfide.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	547		7.58	20.0	20	06/27/2020 10:48	WG1498064
Fluoride	1.36		0.0640	0.150	1	06/27/2020 10:30	WG1498064
Sulfate	198		11.9	100	20	06/27/2020 10:48	WG1498064

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 21:50	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:00	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.781		0.0254	0.200	1	06/25/2020 22:00	WG1498738
Boron,Dissolved	0.790		0.0254	0.200	1	06/26/2020 08:15	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00612		0.000735	0.00200	1	06/27/2020 21:24	WG1498749
Arsenic,Dissolved	0.00613		0.000735	0.00200	1	06/26/2020 14:49	WG1498726
Barium	0.443		0.00778	0.0200	1	06/27/2020 21:24	WG1498749
Barium,Dissolved	0.413		0.00778	0.0200	1	06/26/2020 14:49	WG1498726
Cadmium	U		0.000478	0.00100	1	06/27/2020 21:24	WG1498749
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 14:49	WG1498726
Calcium	141		0.480	1.00	1	06/27/2020 21:24	WG1498749
Chromium	U		0.00149	0.00200	1	06/27/2020 21:24	WG1498749
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:49	WG1498726
Cobalt	U		0.000477	0.00200	1	06/27/2020 21:24	WG1498749
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 14:49	WG1498726
Iron	0.375		0.0489	0.100	1	06/27/2020 21:24	WG1498749
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:49	WG1498726

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	U		0.00249	0.00500	1	06/27/2020 21:24	WG1498749
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:49	WG1498726
Manganese	0.297		0.00132	0.00500	1	06/27/2020 21:24	WG1498749
Manganese,Dissolved	0.297		0.00132	0.00500	1	06/26/2020 14:49	WG1498726
Nickel	0.00536		0.000952	0.00200	1	06/27/2020 21:24	WG1498749
Nickel,Dissolved	0.00507		0.000952	0.00200	1	06/26/2020 14:49	WG1498726
Potassium	0.828	J	0.534	2.00	1	06/27/2020 21:24	WG1498749
Selenium	U		0.000657	0.00200	1	06/27/2020 21:24	WG1498749
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:49	WG1498726
Sodium	341		0.630	2.00	1	06/27/2020 21:24	WG1498749
Uranium	U		0.00754	0.0200	1	06/27/2020 21:24	WG1498749
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 14:49	WG1498726
Vanadium	0.00385	J	0.000986	0.00500	1	06/27/2020 21:24	WG1498749
Vanadium,Dissolved	0.00336	J	0.000986	0.00500	1	06/26/2020 14:49	WG1498726

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	14.1		1.57	5.00	50	06/27/2020 18:04	WG1500303
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/27/2020 18:04*	WG1500303

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/26/2020 01:09	WG1499394
Benzene	3.09		0.00188	0.0200	20	06/26/2020 01:09	WG1499394
Bromodichloromethane	U		0.00272	0.0200	20	06/26/2020 01:09	WG1499394
Bromoform	U		0.00258	0.0200	20	06/26/2020 01:09	WG1499394
Bromomethane	U		0.0121	0.100	20	06/26/2020 01:09	WG1499394
n-Butylbenzene	0.00373	J	0.00314	0.0200	20	06/26/2020 01:09	WG1499394
sec-Butylbenzene	0.00578	J	0.00250	0.0200	20	06/26/2020 01:09	WG1499394
Carbon disulfide	U		0.00192	0.0200	20	06/26/2020 01:09	WG1499394
Carbon tetrachloride	U		0.00256	0.0200	20	06/26/2020 01:09	WG1499394
Chlorobenzene	U	J4	0.00232	0.0200	20	06/26/2020 01:09	WG1499394
Chlorodibromomethane	U		0.00280	0.0200	20	06/26/2020 01:09	WG1499394
Chloroethane	U		0.00384	0.100	20	06/26/2020 01:09	WG1499394
Chloroform	0.00489	J	0.00222	0.100	20	06/26/2020 01:09	WG1499394
Chloromethane	U		0.0192	0.0500	20	06/26/2020 01:09	WG1499394
1,2-Dibromoethane	U		0.00252	0.0200	20	06/26/2020 01:09	WG1499394
1,1-Dichloroethane	U		0.00200	0.0200	20	06/26/2020 01:09	WG1499394
1,2-Dichloroethane	U		0.00164	0.0200	20	06/26/2020 01:09	WG1499394
1,1-Dichloroethene	U		0.00376	0.0200	20	06/26/2020 01:09	WG1499394
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/26/2020 01:09	WG1499394
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/26/2020 01:09	WG1499394
1,2-Dichloropropane	U		0.00298	0.0200	20	06/26/2020 01:09	WG1499394
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/26/2020 01:09	WG1499394
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/26/2020 01:09	WG1499394
Ethylbenzene	0.0311		0.00274	0.0200	20	06/26/2020 01:09	WG1499394
Isopropylbenzene	0.0437		0.00210	0.0200	20	06/26/2020 01:09	WG1499394
p-Isopropyltoluene	0.00337	J	0.00240	0.0200	20	06/26/2020 01:09	WG1499394
2-Butanone (MEK)	U		0.0238	0.200	20	06/26/2020 01:09	WG1499394
2-Hexanone	U		0.0157	0.200	20	06/26/2020 01:09	WG1499394
Methylene Chloride	U		0.00860	0.100	20	06/26/2020 01:09	WG1499394
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/26/2020 01:09	WG1499394
Methyl tert-butyl ether	0.0347		0.00202	0.0200	20	06/26/2020 01:09	WG1499394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Naphthalene	0.132		0.0200	0.100	20	06/26/2020 01:09	WG1499394
n-Propylbenzene	0.0569		0.00199	0.0200	20	06/26/2020 01:09	WG1499394
Styrene	U		0.00236	0.0200	20	06/26/2020 01:09	WG1499394
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/26/2020 01:09	WG1499394
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/26/2020 01:09	WG1499394
Tetrachloroethene	U	J4	0.00600	0.0200	20	06/26/2020 01:09	WG1499394
Toluene	0.0224		0.00556	0.0200	20	06/26/2020 01:09	WG1499394
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/26/2020 01:09	WG1499394
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/26/2020 01:09	WG1499394
Trichloroethene	U		0.00380	0.0200	20	06/26/2020 01:09	WG1499394
1,2,4-Trimethylbenzene	0.284		0.00644	0.0200	20	06/26/2020 01:09	WG1499394
1,3,5-Trimethylbenzene	0.00304	J	0.00208	0.0200	20	06/26/2020 01:09	WG1499394
Vinyl chloride	U		0.00468	0.0200	20	06/26/2020 01:09	WG1499394
o-Xylene	0.00925	J	0.00348	0.0200	20	06/26/2020 01:09	WG1499394
m&p-Xylene	0.703		0.00860	0.0400	20	06/26/2020 01:09	WG1499394
Xylenes, Total	0.712		0.00348	0.0600	20	06/26/2020 01:09	WG1499394
(S) Toluene-d8	*110*			*80.0-120*		*06/26/2020 01:09*	WG1499394
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/26/2020 01:09*	WG1499394
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/26/2020 01:09*	WG1499394

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.55		0.123	0.500	5	06/29/2020 10:49	WG1497082
(S) o-Terphenyl	*74.2*			*31.0-160*		*06/29/2020 10:49*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1970		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.500	1.00	10	06/30/2020 18:11	WG1499267

Sample Narrative:

L1231128-27 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	410		3.79	10.0	10	06/27/2020 11:25	WG1498064
Fluoride	1.42		0.0640	0.150	1	06/27/2020 11:07	WG1498064
Sulfate	15.6		0.594	5.00	1	06/27/2020 11:07	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00595		0.000735	0.00200	1	06/28/2020 22:28	WG1498750
Arsenic,Dissolved	0.00639		0.000735	0.00200	1	06/26/2020 14:52	WG1498726
Barium	9.81	V	0.00778	0.0200	1	06/28/2020 22:28	WG1498750
Barium,Dissolved	9.73		0.00778	0.0200	1	06/26/2020 14:52	WG1498726
Calcium	96.4		0.480	1.00	1	06/28/2020 22:28	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 22:28	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:52	WG1498726
Iron	0.0693	J	0.0489	0.100	1	06/28/2020 22:28	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:52	WG1498726
Lead	0.00484	J	0.00249	0.00500	1	06/28/2020 22:28	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:52	WG1498726
Manganese	0.0692		0.00132	0.00500	1	06/28/2020 22:28	WG1498750
Manganese,Dissolved	0.0725		0.00132	0.00500	1	06/26/2020 14:52	WG1498726
Potassium	1.10	J	0.534	2.00	1	06/28/2020 22:28	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 22:28	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:52	WG1498726
Sodium	426	V	0.630	2.00	1	06/28/2020 22:28	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	8.73		0.628	2.00	20	06/26/2020 00:42	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*06/26/2020 00:42*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	06/23/2020 05:39	WG1497261
Benzene	2.68		0.00188	0.0200	20	06/26/2020 01:29	WG1499394
Bromodichloromethane	U		0.00136	0.0100	10	06/23/2020 05:39	WG1497261
Bromoform	U		0.00129	0.0100	10	06/23/2020 05:39	WG1497261
Bromomethane	U		0.00605	0.0500	10	06/23/2020 05:39	WG1497261
n-Butylbenzene	0.00903	J J4	0.00157	0.0100	10	06/23/2020 05:39	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.0132		0.00125	0.0100	10	06/23/2020 05:39	WG1497261
Carbon disulfide	U		0.000962	0.0100	10	06/23/2020 05:39	WG1497261
Carbon tetrachloride	U		0.00128	0.0100	10	06/23/2020 05:39	WG1497261
Chlorobenzene	U		0.00116	0.0100	10	06/23/2020 05:39	WG1497261
Chlorodibromomethane	U		0.00140	0.0100	10	06/23/2020 05:39	WG1497261
Chloroethane	U		0.00192	0.0500	10	06/23/2020 05:39	WG1497261
Chloroform	U		0.00111	0.0500	10	06/23/2020 05:39	WG1497261
Chloromethane	U		0.00960	0.0250	10	06/23/2020 05:39	WG1497261
1,2-Dibromoethane	U		0.00126	0.0100	10	06/23/2020 05:39	WG1497261
1,1-Dichloroethane	U		0.00100	0.0100	10	06/23/2020 05:39	WG1497261
1,2-Dichloroethane	U		0.000819	0.0100	10	06/23/2020 05:39	WG1497261
1,1-Dichloroethene	U		0.00188	0.0100	10	06/23/2020 05:39	WG1497261
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	06/23/2020 05:39	WG1497261
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	06/23/2020 05:39	WG1497261
1,2-Dichloropropane	U		0.00149	0.0100	10	06/23/2020 05:39	WG1497261
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	06/23/2020 05:39	WG1497261
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	06/23/2020 05:39	WG1497261
Ethylbenzene	0.00865	J	0.00137	0.0100	10	06/23/2020 05:39	WG1497261
Isopropylbenzene	0.101		0.00105	0.0100	10	06/23/2020 05:39	WG1497261
p-Isopropyltoluene	U		0.00120	0.0100	10	06/23/2020 05:39	WG1497261
2-Butanone (MEK)	U		0.0119	0.100	10	06/23/2020 05:39	WG1497261
2-Hexanone	U		0.00787	0.100	10	06/23/2020 05:39	WG1497261
Methylene Chloride	U		0.00430	0.0500	10	06/23/2020 05:39	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	06/23/2020 05:39	WG1497261
Methyl tert-butyl ether	0.0407		0.00101	0.0100	10	06/23/2020 05:39	WG1497261
Naphthalene	0.0380	J	0.0100	0.0500	10	06/23/2020 05:39	WG1497261
n-Propylbenzene	0.165		0.000993	0.0100	10	06/23/2020 05:39	WG1497261
Styrene	U		0.00118	0.0100	10	06/23/2020 05:39	WG1497261
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	06/23/2020 05:39	WG1497261
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	06/23/2020 05:39	WG1497261
Tetrachloroethene	U		0.00300	0.0100	10	06/23/2020 05:39	WG1497261
Toluene	U		0.00278	0.0100	10	06/23/2020 05:39	WG1497261
1,1,1-Trichloroethane	U		0.00149	0.0100	10	06/23/2020 05:39	WG1497261
1,1,2-Trichloroethane	U		0.00158	0.0100	10	06/23/2020 05:39	WG1497261
Trichloroethene	U		0.00190	0.0100	10	06/23/2020 05:39	WG1497261
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	06/23/2020 05:39	WG1497261
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	06/23/2020 05:39	WG1497261
Vinyl chloride	U		0.00234	0.0100	10	06/23/2020 05:39	WG1497261
o-Xylene	U		0.00174	0.0100	10	06/23/2020 05:39	WG1497261
m&p-Xylene	U		0.00430	0.0200	10	06/23/2020 05:39	WG1497261
Xylenes, Total	U		0.00174	0.0300	10	06/23/2020 05:39	WG1497261
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 05:39*	WG1497261
(S) Toluene-d8	*110*			*80.0-120*		*06/26/2020 01:29*	WG1499394
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/23/2020 05:39*	WG1497261
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/26/2020 01:29*	WG1499394
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*06/23/2020 05:39*	WG1497261
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*06/26/2020 01:29*	WG1499394

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	13.0		0.123	0.500	5	06/29/2020 11:09	WG1497082
(S) o-Terphenyl	*119*			*31.0-160*		*06/29/2020 11:09*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3310		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/30/2020 18:14	WG1499267

Sample Narrative:

L1231128-28 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	336		19.0	50.0	50	06/27/2020 12:39	WG1498064
Fluoride	0.851		0.0640	0.150	1	06/27/2020 12:20	WG1498064
Sulfate	1020		29.7	250	50	06/27/2020 12:39	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00520		0.000735	0.00200	1	06/28/2020 22:57	WG1498750
Arsenic,Dissolved	0.00551		0.000735	0.00200	1	06/26/2020 14:56	WG1498726
Barium	0.0191	J	0.00778	0.0200	1	06/28/2020 22:57	WG1498750
Barium,Dissolved	0.0189	J	0.00778	0.0200	1	06/26/2020 14:56	WG1498726
Calcium	246		0.480	1.00	1	06/28/2020 22:57	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 22:57	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:56	WG1498726
Iron	0.233		0.0489	0.100	1	06/28/2020 22:57	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:56	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 22:57	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:56	WG1498726
Manganese	0.144		0.00132	0.00500	1	06/28/2020 22:57	WG1498750
Manganese,Dissolved	0.156		0.00132	0.00500	1	06/26/2020 14:56	WG1498726
Potassium	U		0.534	2.00	1	06/28/2020 22:57	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 22:57	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:56	WG1498726
Sodium	358		0.630	2.00	1	06/28/2020 22:57	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.26	J	0.628	2.00	20	06/26/2020 01:04	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 01:04*	WG1499248

Sample Narrative:

L1231128-28 WG1499248: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/23/2020 06:03	WG1497261
Benzene	0.109		0.000471	0.00500	5	06/26/2020 01:49	WG1499394
Bromodichloromethane	U		0.000680	0.00500	5	06/23/2020 06:03	WG1497261
Bromoform	U		0.000645	0.00500	5	06/23/2020 06:03	WG1497261
Bromomethane	U		0.00303	0.0250	5	06/23/2020 06:03	WG1497261
n-Butylbenzene	U	J4	0.000785	0.00500	5	06/23/2020 06:03	WG1497261
sec-Butylbenzene	0.00446	J	0.000625	0.00500	5	06/23/2020 06:03	WG1497261
Carbon disulfide	U		0.000481	0.00500	5	06/23/2020 06:03	WG1497261
Carbon tetrachloride	U		0.000640	0.00500	5	06/23/2020 06:03	WG1497261
Chlorobenzene	U		0.000580	0.00500	5	06/23/2020 06:03	WG1497261
Chlorodibromomethane	U		0.000700	0.00500	5	06/23/2020 06:03	WG1497261
Chloroethane	U		0.000960	0.0250	5	06/23/2020 06:03	WG1497261
Chloroform	U		0.000555	0.0250	5	06/23/2020 06:03	WG1497261
Chloromethane	U		0.00480	0.0125	5	06/23/2020 06:03	WG1497261
1,2-Dibromoethane	U		0.000630	0.00500	5	06/23/2020 06:03	WG1497261
1,1-Dichloroethane	U		0.000500	0.00500	5	06/23/2020 06:03	WG1497261
1,2-Dichloroethane	U		0.000409	0.00500	5	06/23/2020 06:03	WG1497261
1,1-Dichloroethene	U		0.000940	0.00500	5	06/23/2020 06:03	WG1497261
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/23/2020 06:03	WG1497261
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/23/2020 06:03	WG1497261
1,2-Dichloropropane	U		0.000745	0.00500	5	06/23/2020 06:03	WG1497261
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/23/2020 06:03	WG1497261
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/23/2020 06:03	WG1497261
Ethylbenzene	0.00108	J	0.000685	0.00500	5	06/23/2020 06:03	WG1497261
Isopropylbenzene	0.0301		0.000525	0.00500	5	06/23/2020 06:03	WG1497261
p-Isopropyltoluene	U		0.000600	0.00500	5	06/23/2020 06:03	WG1497261
2-Butanone (MEK)	U		0.00595	0.0500	5	06/23/2020 06:03	WG1497261
2-Hexanone	U		0.00394	0.0500	5	06/23/2020 06:03	WG1497261
Methylene Chloride	U		0.00215	0.0250	5	06/23/2020 06:03	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/23/2020 06:03	WG1497261
Methyl tert-butyl ether	0.0103		0.000505	0.00500	5	06/23/2020 06:03	WG1497261
Naphthalene	U		0.00500	0.0250	5	06/23/2020 06:03	WG1497261
n-Propylbenzene	0.0107		0.000497	0.00500	5	06/23/2020 06:03	WG1497261
Styrene	U		0.000590	0.00500	5	06/23/2020 06:03	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/23/2020 06:03	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/23/2020 06:03	WG1497261
Tetrachloroethene	U		0.00150	0.00500	5	06/23/2020 06:03	WG1497261
Toluene	0.00172	J	0.00139	0.00500	5	06/23/2020 06:03	WG1497261
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/23/2020 06:03	WG1497261
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/23/2020 06:03	WG1497261
Trichloroethene	U		0.000950	0.00500	5	06/23/2020 06:03	WG1497261
1,2,4-Trimethylbenzene	0.0163		0.00161	0.00500	5	06/23/2020 06:03	WG1497261
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/23/2020 06:03	WG1497261
Vinyl chloride	U		0.00117	0.00500	5	06/23/2020 06:03	WG1497261
o-Xylene	U		0.000870	0.00500	5	06/23/2020 06:03	WG1497261
m&p-Xylene	0.0535		0.00215	0.0100	5	06/23/2020 06:03	WG1497261
Xylenes, Total	0.0535		0.000870	0.0150	5	06/23/2020 06:03	WG1497261
(S) Toluene-d8	*104*			*80.0-120*		*06/23/2020 06:03*	WG1497261
(S) Toluene-d8	*110*			*80.0-120*		*06/26/2020 01:49*	WG1499394
(S) 4-Bromofluorobenzene	*113*			*77.0-126*		*06/23/2020 06:03*	WG1497261
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/26/2020 01:49*	WG1499394
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*		*06/23/2020 06:03*	WG1497261
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/26/2020 01:49*	WG1499394

Sample Narrative:

L1231128-28 WG1497261: Lowest possible dilution due to sample foaming.

MW-42
Collected date/time: 06/17/20 14:20
L1231128

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	4.95		0.0247	0.100	1	06/29/2020 06:10	WG1497082
(S) o-Terphenyl	*96.8*			*31.0-160*		*06/29/2020 06:10*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1530		7.05	25.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		2.50	5.00	50	06/30/2020 18:15	WG1499267

Sample Narrative:

L1231128-29 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	218		3.79	10.0	10	06/27/2020 13:15	WG1498064
Fluoride	0.995		0.0640	0.150	1	06/27/2020 12:57	WG1498064
Sulfate	162		5.94	50.0	10	06/27/2020 13:15	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00738		0.000735	0.00200	1	06/28/2020 23:01	WG1498750
Arsenic,Dissolved	0.00695		0.000735	0.00200	1	06/26/2020 14:59	WG1498726
Barium	0.176		0.00778	0.0200	1	06/28/2020 23:01	WG1498750
Barium,Dissolved	0.174		0.00778	0.0200	1	06/26/2020 14:59	WG1498726
Calcium	184		0.480	1.00	1	06/28/2020 23:01	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:01	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 14:59	WG1498726
Iron	2.57		0.0489	0.100	1	06/28/2020 23:01	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 14:59	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:01	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 14:59	WG1498726
Manganese	0.108		0.00132	0.00500	1	06/28/2020 23:01	WG1498750
Manganese,Dissolved	0.113		0.00132	0.00500	1	06/26/2020 14:59	WG1498726
Potassium	0.651	J	0.534	2.00	1	06/28/2020 23:01	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:01	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 14:59	WG1498726
Sodium	151		0.630	2.00	1	06/28/2020 23:01	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.334	B J	0.157	0.500	5	06/26/2020 14:59	WG1499718
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 14:59*	WG1499718

Sample Narrative:

L1231128-29 WG1499718: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 06:27	WG1497261
Benzene	0.00487		0.0000941	0.00100	1	06/23/2020 06:27	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 06:27	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 06:27	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 06:27	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 06:27	WG1497261
sec-Butylbenzene	0.00389		0.000125	0.00100	1	06/23/2020 06:27	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 06:27	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 06:27	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 06:27	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 06:27	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 06:27	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 06:27	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 06:27	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 06:27	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 06:27	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 06:27	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 06:27	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 06:27	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 06:27	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 06:27	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 06:27	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 06:27	WG1497261
Ethylbenzene	0.000204	J	0.000137	0.00100	1	06/23/2020 06:27	WG1497261
Isopropylbenzene	0.00809		0.000105	0.00100	1	06/23/2020 06:27	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 06:27	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 06:27	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 06:27	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 06:27	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 06:27	WG1497261
Methyl tert-butyl ether	0.00825		0.000101	0.00100	1	06/23/2020 06:27	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 06:27	WG1497261
n-Propylbenzene	0.00235		0.0000993	0.00100	1	06/23/2020 06:27	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 06:27	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 06:27	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 06:27	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 06:27	WG1497261
Toluene	0.000397	J	0.000278	0.00100	1	06/23/2020 06:27	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 06:27	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 06:27	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 06:27	WG1497261
1,2,4-Trimethylbenzene	0.000639	J	0.000322	0.00100	1	06/23/2020 06:27	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 06:27	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 06:27	WG1497261
o-Xylene	0.000305	J	0.000174	0.00100	1	06/23/2020 06:27	WG1497261
m&p-Xylene	0.00209		0.000430	0.00200	1	06/23/2020 06:27	WG1497261
Xylenes, Total	0.00240	J	0.000174	0.00300	1	06/23/2020 06:27	WG1497261
(S) Toluene-d8	*104*			*80.0-120*		*06/23/2020 06:27*	WG1497261
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/23/2020 06:27*	WG1497261
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*06/23/2020 06:27*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.54		0.0247	0.100	1	06/29/2020 06:30	WG1497082
(S) o-Terphenyl	*121*			*31.0-160*		*06/29/2020 06:30*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5730		28.2	100	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.386		0.0500	0.100	1	06/30/2020 18:20	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	389		37.9	100	100	06/27/2020 13:52	WG1498064
Fluoride	2.58		0.0640	0.150	1	06/27/2020 13:34	WG1498064
Sulfate	2940		59.4	500	100	06/27/2020 13:52	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0163		0.000735	0.00200	1	06/28/2020 23:04	WG1498750
Arsenic,Dissolved	0.0156		0.000735	0.00200	1	06/26/2020 15:03	WG1498726
Barium	0.0206		0.00778	0.0200	1	06/28/2020 23:04	WG1498750
Barium,Dissolved	0.0199	J	0.00778	0.0200	1	06/26/2020 15:03	WG1498726
Calcium	554		0.480	1.00	1	06/28/2020 23:04	WG1498750
Chromium	0.00178	J	0.00149	0.00200	1	06/28/2020 23:04	WG1498750
Chromium,Dissolved	0.00187	J	0.00149	0.00200	1	06/26/2020 15:03	WG1498726
Iron	0.232		0.0489	0.100	1	06/28/2020 23:04	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:03	WG1498726
Lead	0.0104		0.00249	0.00500	1	06/28/2020 23:04	WG1498750
Lead,Dissolved	0.00270	J	0.00249	0.00500	1	06/26/2020 15:03	WG1498726
Manganese	0.105		0.00132	0.00500	1	06/28/2020 23:04	WG1498750
Manganese,Dissolved	0.118		0.00132	0.00500	1	06/26/2020 15:03	WG1498726
Potassium	4.62		0.534	2.00	1	06/28/2020 23:04	WG1498750
Selenium	0.0154		0.000657	0.00200	1	06/28/2020 23:04	WG1498750
Selenium,Dissolved	0.0157		0.000657	0.00200	1	06/26/2020 15:03	WG1498726
Sodium	306		0.630	2.00	1	06/28/2020 23:04	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0426	J	0.0314	0.100	1	06/25/2020 20:08	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/25/2020 20:08*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 06:51	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 06:51	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 06:51	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 06:51	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 06:51	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 06:51	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 06:51	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 06:51	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 06:51	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 06:51	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 06:51	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 06:51	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 06:51	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 06:51	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 06:51	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 06:51	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 06:51	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 06:51	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 06:51	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 06:51	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 06:51	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 06:51	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 06:51	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 06:51	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 06:51	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 06:51	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 06:51	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 06:51	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 06:51	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 06:51	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 06:51	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 06:51	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 06:51	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 06:51	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 06:51	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 06:51	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 06:51	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 06:51	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 06:51	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 06:51	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 06:51	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 06:51	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 06:51	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 06:51	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 06:51	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 06:51	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 06:51	WG1497261
(S) Toluene-d8	*114*			*80.0-120*		*06/23/2020 06:51*	WG1497261
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/23/2020 06:51*	WG1497261
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*06/23/2020 06:51*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.44		0.0247	0.100	1	06/29/2020 04:29	WG1497082
(S) o-Terphenyl	*75.3*			*31.0-160*		*06/29/2020 04:29*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2460		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:24	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	184		1.90	5.00	5	06/27/2020 14:11	WG1498064
Fluoride	0.605	J	0.320	0.750	5	06/27/2020 14:11	WG1498064
Sulfate	958		29.7	250	50	06/27/2020 14:29	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00186	J	0.000735	0.00200	1	06/28/2020 23:08	WG1498750
Arsenic,Dissolved	0.00179	J	0.000735	0.00200	1	06/26/2020 15:06	WG1498726
Barium	0.0313		0.00778	0.0200	1	06/28/2020 23:08	WG1498750
Barium,Dissolved	0.0239		0.00778	0.0200	1	06/26/2020 15:06	WG1498726
Calcium	313		0.480	1.00	1	06/28/2020 23:08	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:08	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:06	WG1498726
Iron	1.03		0.0489	0.100	1	06/28/2020 23:08	WG1498750
Iron,Dissolved	0.777		0.0489	0.100	1	06/26/2020 15:06	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:08	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:06	WG1498726
Manganese	1.34		0.00132	0.00500	1	06/28/2020 23:08	WG1498750
Manganese,Dissolved	1.30		0.00132	0.00500	1	06/26/2020 15:06	WG1498726
Potassium	U		0.534	2.00	1	06/28/2020 23:08	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:08	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:06	WG1498726
Sodium	152		0.630	2.00	1	06/28/2020 23:08	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.798	V3	0.0314	0.100	1	06/27/2020 16:10	WG1500307
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/27/2020 16:10*	WG1500307

Sample Narrative:

L1231128-31 WG1500307: Previous run also had low IS/SURR recovery. Matrix effect.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	0.0396	J	0.0113	0.0500	1	06/26/2020 00:08	WG1499394
Benzene	0.0248		0.0000941	0.00100	1	06/26/2020 00:08	WG1499394
Bromodichloromethane	U		0.000136	0.00100	1	06/26/2020 00:08	WG1499394
Bromoform	U		0.000129	0.00100	1	06/26/2020 00:08	WG1499394
Bromomethane	U		0.000605	0.00500	1	06/26/2020 00:08	WG1499394
n-Butylbenzene	U		0.000157	0.00100	1	06/26/2020 00:08	WG1499394

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.000611	J	0.000125	0.00100	1	06/26/2020 00:08	WG1499394
Carbon disulfide	0.000181	J	0.0000962	0.00100	1	06/26/2020 00:08	WG1499394
Carbon tetrachloride	U		0.000128	0.00100	1	06/26/2020 00:08	WG1499394
Chlorobenzene	U	J4	0.000116	0.00100	1	06/26/2020 00:08	WG1499394
Chlorodibromomethane	U		0.000140	0.00100	1	06/26/2020 00:08	WG1499394
Chloroethane	U		0.000192	0.00500	1	06/26/2020 00:08	WG1499394
Chloroform	0.00490	J	0.000111	0.00500	1	06/26/2020 00:08	WG1499394
Chloromethane	U		0.000960	0.00250	1	06/26/2020 00:08	WG1499394
1,2-Dibromoethane	U		0.000126	0.00100	1	06/26/2020 00:08	WG1499394
1,1-Dichloroethane	U		0.000100	0.00100	1	06/26/2020 00:08	WG1499394
1,2-Dichloroethane	0.000410	J	0.0000819	0.00100	1	06/26/2020 00:08	WG1499394
1,1-Dichloroethene	U		0.000188	0.00100	1	06/26/2020 00:08	WG1499394
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/26/2020 00:08	WG1499394
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/26/2020 00:08	WG1499394
1,2-Dichloropropane	U		0.000149	0.00100	1	06/26/2020 00:08	WG1499394
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/26/2020 00:08	WG1499394
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/26/2020 00:08	WG1499394
Ethylbenzene	0.00448		0.000137	0.00100	1	06/26/2020 00:08	WG1499394
Isopropylbenzene	0.000915	J	0.000105	0.00100	1	06/26/2020 00:08	WG1499394
p-Isopropyltoluene	0.00157		0.000120	0.00100	1	06/26/2020 00:08	WG1499394
2-Butanone (MEK)	U		0.00119	0.0100	1	06/26/2020 00:08	WG1499394
2-Hexanone	U		0.000787	0.0100	1	06/26/2020 00:08	WG1499394
Methylene Chloride	U		0.000430	0.00500	1	06/26/2020 00:08	WG1499394
4-Methyl-2-pentanone (MIBK)	0.000770	J	0.000478	0.0100	1	06/26/2020 00:08	WG1499394
Methyl tert-butyl ether	0.0104		0.000101	0.00100	1	06/26/2020 00:08	WG1499394
Naphthalene	0.00195	J	0.00100	0.00500	1	06/26/2020 00:08	WG1499394
n-Propylbenzene	0.000600	J	0.0000993	0.00100	1	06/26/2020 00:08	WG1499394
Styrene	U		0.000118	0.00100	1	06/26/2020 00:08	WG1499394
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/26/2020 00:08	WG1499394
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/26/2020 00:08	WG1499394
Tetrachloroethene	0.000582	J J4	0.000300	0.00100	1	06/26/2020 00:08	WG1499394
Toluene	0.000490	J	0.000278	0.00100	1	06/26/2020 00:08	WG1499394
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/26/2020 00:08	WG1499394
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/26/2020 00:08	WG1499394
Trichloroethene	U		0.000190	0.00100	1	06/26/2020 00:08	WG1499394
1,2,4-Trimethylbenzene	0.0278		0.000322	0.00100	1	06/26/2020 00:08	WG1499394
1,3,5-Trimethylbenzene	0.000589	J	0.000104	0.00100	1	06/26/2020 00:08	WG1499394
Vinyl chloride	U		0.000234	0.00100	1	06/26/2020 00:08	WG1499394
o-Xylene	0.000359	J	0.000174	0.00100	1	06/26/2020 00:08	WG1499394
m&p-Xylene	0.0470		0.000430	0.00200	1	06/26/2020 00:08	WG1499394
Xylenes, Total	0.0474		0.000174	0.00300	1	06/26/2020 00:08	WG1499394
(S) Toluene-d8	*107*			*80.0-120*		*06/26/2020 00:08*	WG1499394
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/26/2020 00:08*	WG1499394
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/26/2020 00:08*	WG1499394

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.158		0.0247	0.100	1	06/29/2020 03:09	WG1497082
(S) o-Terphenyl	*47.5*			*31.0-160*		*06/29/2020 03:09*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4960		28.2	100	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:25	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	363		3.79	10.0	10	06/27/2020 14:48	WG1498064
Fluoride	1.45	J	0.640	1.50	10	06/27/2020 14:48	WG1498064
Sulfate	2530		59.4	500	100	06/27/2020 15:06	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00384		0.000735	0.00200	1	06/28/2020 23:11	WG1498750
Arsenic,Dissolved	0.00383		0.000735	0.00200	1	06/26/2020 15:10	WG1498726
Barium	0.00932	J	0.00778	0.0200	1	06/28/2020 23:11	WG1498750
Barium,Dissolved	0.00852	J	0.00778	0.0200	1	06/26/2020 15:10	WG1498726
Calcium	516		0.480	1.00	1	06/28/2020 23:11	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:11	WG1498750
Chromium,Dissolved	0.00150	J	0.00149	0.00200	1	06/26/2020 15:10	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:11	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:10	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:11	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:10	WG1498726
Manganese	0.00677		0.00132	0.00500	1	06/28/2020 23:11	WG1498750
Manganese,Dissolved	0.00608		0.00132	0.00500	1	06/26/2020 15:10	WG1498726
Potassium	1.43	J	0.534	2.00	1	06/28/2020 23:11	WG1498750
Selenium	0.00602		0.000657	0.00200	1	06/28/2020 23:11	WG1498750
Selenium,Dissolved	0.00661		0.000657	0.00200	1	06/26/2020 15:10	WG1498726
Sodium	239		0.630	2.00	1	06/28/2020 23:11	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0332	J	0.0314	0.100	1	06/25/2020 20:53	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 20:53*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 07:39	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 07:39	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 07:39	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 07:39	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 07:39	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 07:39	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 07:39	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 07:39	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 07:39	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 07:39	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 07:39	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 07:39	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 07:39	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 07:39	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 07:39	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 07:39	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 07:39	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 07:39	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 07:39	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 07:39	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 07:39	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 07:39	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 07:39	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 07:39	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 07:39	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 07:39	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 07:39	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 07:39	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 07:39	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 07:39	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 07:39	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 07:39	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 07:39	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 07:39	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 07:39	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 07:39	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 07:39	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 07:39	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 07:39	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 07:39	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 07:39	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 07:39	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 07:39	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 07:39	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 07:39	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 07:39	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 07:39	WG1497261
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 07:39*	WG1497261
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*06/23/2020 07:39*	WG1497261
(S) 1,2-Dichloroethane-d4	*130*			*70.0-130*		*06/23/2020 07:39*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/29/2020 02:08	WG1497082
(S) o-Terphenyl	*36.8*			*31.0-160*		*06/29/2020 02:08*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	3790		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.500	1.00	10	06/30/2020 18:26	WG1499267

Sample Narrative:

L1231128-33 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.0360	0.100	20	06/27/2020 20:49	WG1500401

Sample Narrative:

L1231128-33 WG1500401: Diluted due to sulfide.

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	219		3.79	10.0	10	06/27/2020 16:01	WG1498064
Fluoride	1.18	J	0.640	1.50	10	06/27/2020 16:01	WG1498064
Sulfate	1660		59.4	500	100	06/27/2020 16:20	WG1498064

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 21:52	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:02	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.432		0.0254	0.200	1	06/25/2020 22:09	WG1498738
Boron,Dissolved	0.448		0.0254	0.200	1	06/26/2020 08:27	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00559		0.000735	0.00200	1	06/28/2020 23:14	WG1498750
Arsenic,Dissolved	0.00547		0.000735	0.00200	1	06/26/2020 15:13	WG1498726
Barium	0.0188	J	0.00778	0.0200	1	06/28/2020 23:14	WG1498750
Barium,Dissolved	0.0186	J	0.00778	0.0200	1	06/26/2020 15:13	WG1498726
Cadmium	U		0.000478	0.00100	1	06/28/2020 23:14	WG1498750
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 15:13	WG1498726
Calcium	424		0.480	1.00	1	06/28/2020 23:14	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:14	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:13	WG1498726
Cobalt	U		0.000477	0.00200	1	06/28/2020 23:14	WG1498750
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 15:13	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:14	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:13	WG1498726

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	U		0.00249	0.00500	1	06/28/2020 23:14	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:13	WG1498726
Manganese	0.229		0.00132	0.00500	1	06/28/2020 23:14	WG1498750
Manganese,Dissolved	0.241		0.00132	0.00500	1	06/26/2020 15:13	WG1498726
Nickel	0.00121	J	0.000952	0.00200	1	06/28/2020 23:14	WG1498750
Nickel,Dissolved	0.00123	J	0.000952	0.00200	1	06/26/2020 15:13	WG1498726
Potassium	U		0.534	2.00	1	06/28/2020 23:14	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:14	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:13	WG1498726
Sodium	176		0.630	2.00	1	06/28/2020 23:14	WG1498750
Uranium	U		0.00754	0.0200	1	06/28/2020 23:14	WG1498750
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 15:13	WG1498726
Vanadium	U		0.000986	0.00500	1	06/28/2020 23:14	WG1498750
Vanadium,Dissolved	U		0.000986	0.00500	1	06/26/2020 15:13	WG1498726

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.337		0.0314	0.100	1	06/25/2020 21:16	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*06/25/2020 21:16*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 08:02	WG1497261
Benzene	0.00390		0.0000941	0.00100	1	06/23/2020 08:02	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 08:02	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 08:02	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 08:02	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 08:02	WG1497261
sec-Butylbenzene	0.00163		0.000125	0.00100	1	06/23/2020 08:02	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 08:02	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 08:02	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 08:02	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 08:02	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 08:02	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 08:02	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 08:02	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 08:02	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 08:02	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 08:02	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 08:02	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 08:02	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 08:02	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 08:02	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 08:02	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 08:02	WG1497261
Ethylbenzene	0.000296	J	0.000137	0.00100	1	06/23/2020 08:02	WG1497261
Isopropylbenzene	0.0126		0.000105	0.00100	1	06/23/2020 08:02	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 08:02	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 08:02	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 08:02	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 08:02	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 08:02	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 08:02	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Naphthalene	U		0.00100	0.00500	1	06/23/2020 08:02	WG1497261
n-Propylbenzene	0.000948	J	0.0000993	0.00100	1	06/23/2020 08:02	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 08:02	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 08:02	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 08:02	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 08:02	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 08:02	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 08:02	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 08:02	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 08:02	WG1497261
1,2,4-Trimethylbenzene	0.000401	J	0.000322	0.00100	1	06/23/2020 08:02	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 08:02	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 08:02	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 08:02	WG1497261
m&p-Xylene	0.00194	J	0.000430	0.00200	1	06/23/2020 08:02	WG1497261
Xylenes, Total	0.00194	J	0.000174	0.00300	1	06/23/2020 08:02	WG1497261
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 08:02*	WG1497261
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*06/23/2020 08:02*	WG1497261
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*06/23/2020 08:02*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.707		0.0247	0.100	1	06/29/2020 04:09	WG1497082
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/29/2020 04:09*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:28	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U	P1	0.379	1.00	1	06/27/2020 04:06	WG1498064
Fluoride	U		0.0640	0.150	1	06/27/2020 04:06	WG1498064
Sulfate	U	P1	0.594	5.00	1	06/27/2020 04:06	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/28/2020 23:18	WG1498750
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 15:27	WG1498726
Barium	U		0.00778	0.0200	1	06/28/2020 23:18	WG1498750
Barium,Dissolved	U		0.00778	0.0200	1	06/26/2020 15:27	WG1498726
Calcium	U		0.480	1.00	1	06/28/2020 23:18	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:18	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:27	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:18	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:27	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:18	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:27	WG1498726
Manganese	U		0.00132	0.00500	1	06/28/2020 23:18	WG1498750
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 15:27	WG1498726
Potassium	U		0.534	2.00	1	06/28/2020 23:18	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:18	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:27	WG1498726
Sodium	U		0.630	2.00	1	06/28/2020 23:18	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0432	J	0.0314	0.100	1	06/25/2020 21:39	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 21:39*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 08:26	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 08:26	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 08:26	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 08:26	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 08:26	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 08:26	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 08:26	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 08:26	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 08:26	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 08:26	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 08:26	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 08:26	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 08:26	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 08:26	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 08:26	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 08:26	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 08:26	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 08:26	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 08:26	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 08:26	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 08:26	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 08:26	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 08:26	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 08:26	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 08:26	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 08:26	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 08:26	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 08:26	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 08:26	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 08:26	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 08:26	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 08:26	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 08:26	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 08:26	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 08:26	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 08:26	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 08:26	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 08:26	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 08:26	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 08:26	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 08:26	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 08:26	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 08:26	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 08:26	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 08:26	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 08:26	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 08:26	WG1497261
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 08:26*	WG1497261
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/23/2020 08:26*	WG1497261
(S) 1,2-Dichloroethane-d4	*127*			*70.0-130*		*06/23/2020 08:26*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/29/2020 01:48	WG1497082
(S) o-Terphenyl	*45.7*			*31.0-160*		*06/29/2020 01:48*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:29	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/27/2020 16:38	WG1498064
Fluoride	U		0.0640	0.150	1	06/27/2020 16:38	WG1498064
Sulfate	U		0.594	5.00	1	06/27/2020 16:38	WG1498064

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/28/2020 23:21	WG1498750
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 15:30	WG1498726
Barium	U		0.00778	0.0200	1	06/28/2020 23:21	WG1498750
Barium,Dissolved	U		0.00778	0.0200	1	06/26/2020 15:30	WG1498726
Calcium	U		0.480	1.00	1	06/28/2020 23:21	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:21	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:30	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:21	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:30	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:21	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:30	WG1498726
Manganese	U		0.00132	0.00500	1	06/28/2020 23:21	WG1498750
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 15:30	WG1498726
Potassium	U		0.534	2.00	1	06/28/2020 23:21	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:21	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:30	WG1498726
Sodium	U		0.630	2.00	1	06/28/2020 23:21	WG1498750

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0434	J	0.0314	0.100	1	06/25/2020 22:02	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/25/2020 22:02*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 08:50	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 08:50	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 08:50	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 08:50	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 08:50	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 08:50	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 08:50	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 08:50	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 08:50	WG1497261

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 08:50	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 08:50	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 08:50	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 08:50	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 08:50	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 08:50	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 08:50	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 08:50	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 08:50	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 08:50	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 08:50	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 08:50	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 08:50	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 08:50	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 08:50	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 08:50	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 08:50	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 08:50	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 08:50	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 08:50	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 08:50	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 08:50	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 08:50	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 08:50	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 08:50	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 08:50	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 08:50	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 08:50	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 08:50	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 08:50	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 08:50	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 08:50	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 08:50	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 08:50	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 08:50	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 08:50	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 08:50	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 08:50	WG1497261
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 08:50*	WG1497261
(S) 4-Bromofluorobenzene	*98.3*			*77.0-126*		*06/23/2020 08:50*	WG1497261
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*06/23/2020 08:50*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/29/2020 02:48	WG1497082
(S) o-Terphenyl	*46.8*			*31.0-160*		*06/29/2020 02:48*	WG1497082

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	U		2.82	10.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:31	WG1499267

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/27/2020 20:50	WG1500401

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	U		0.379	1.00	1	06/27/2020 16:57	WG1498064
Fluoride	U		0.0640	0.150	1	06/27/2020 16:57	WG1498064
Sulfate	U		0.594	5.00	1	06/27/2020 16:57	WG1498064

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 21:59	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:05	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	U		0.0254	0.200	1	06/25/2020 22:11	WG1498738
Boron,Dissolved	U		0.0254	0.200	1	06/26/2020 08:30	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	U		0.000735	0.00200	1	06/28/2020 23:25	WG1498750
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 15:34	WG1498726
Barium	U		0.00778	0.0200	1	06/28/2020 23:25	WG1498750
Barium,Dissolved	U		0.00778	0.0200	1	06/26/2020 15:34	WG1498726
Cadmium	U		0.000478	0.00100	1	06/28/2020 23:25	WG1498750
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 15:34	WG1498726
Calcium	U		0.480	1.00	1	06/28/2020 23:25	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:25	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:34	WG1498726
Cobalt	U		0.000477	0.00200	1	06/28/2020 23:25	WG1498750
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 15:34	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:25	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:34	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:25	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:34	WG1498726
Manganese	0.00177	J	0.00132	0.00500	1	06/28/2020 23:25	WG1498750
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 15:34	WG1498726
Nickel	U		0.000952	0.00200	1	06/28/2020 23:25	WG1498750
Nickel,Dissolved	U		0.000952	0.00200	1	06/26/2020 15:34	WG1498726

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	U		0.534	2.00	1	06/28/2020 23:25	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:25	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:34	WG1498726
Sodium	U		0.630	2.00	1	06/28/2020 23:25	WG1498750
Uranium	U		0.00754	0.0200	1	06/28/2020 23:25	WG1498750
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 15:34	WG1498726
Vanadium	U		0.000986	0.00500	1	06/28/2020 23:25	WG1498750
Vanadium,Dissolved	U		0.000986	0.00500	1	06/26/2020 15:34	WG1498726

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0360	B J	0.0314	0.100	1	06/26/2020 14:36	WG1499718
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 14:36*	WG1499718

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 09:14	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 09:14	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 09:14	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 09:14	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 09:14	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 09:14	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 09:14	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 09:14	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 09:14	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 09:14	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 09:14	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 09:14	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 09:14	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 09:14	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 09:14	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 09:14	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 09:14	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 09:14	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 09:14	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 09:14	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 09:14	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 09:14	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 09:14	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 09:14	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 09:14	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 09:14	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 09:14	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 09:14	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 09:14	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 09:14	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 09:14	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 09:14	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 09:14	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 09:14	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 09:14	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 09:14	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 09:14	WG1497261

LB-RESI-04
Collected date/time: 06/17/20 12:05
L1231128

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	06/23/2020 09:14	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 09:14	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 09:14	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 09:14	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 09:14	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 09:14	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 09:14	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 09:14	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 09:14	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 09:14	WG1497261
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 09:14*	WG1497261
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 09:14*	WG1497261
(S) 1,2-Dichloroethane-d4	*130*			*70.0-130*		*06/23/2020 09:14*	WG1497261

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/29/2020 02:28	WG1497082
(S) o-Terphenyl	*32.5*			*31.0-160*		*06/29/2020 02:28*	WG1497082

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 01:41	WG1497261
Benzene	U		0.0000941	0.00100	1	06/23/2020 01:41	WG1497261
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 01:41	WG1497261
Bromoform	U		0.000129	0.00100	1	06/23/2020 01:41	WG1497261
Bromomethane	U		0.000605	0.00500	1	06/23/2020 01:41	WG1497261
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/23/2020 01:41	WG1497261
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 01:41	WG1497261
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 01:41	WG1497261
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 01:41	WG1497261
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 01:41	WG1497261
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 01:41	WG1497261
Chloroethane	U		0.000192	0.00500	1	06/23/2020 01:41	WG1497261
Chloroform	U		0.000111	0.00500	1	06/23/2020 01:41	WG1497261
Chloromethane	U		0.000960	0.00250	1	06/23/2020 01:41	WG1497261
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 01:41	WG1497261
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 01:41	WG1497261
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 01:41	WG1497261
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 01:41	WG1497261
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 01:41	WG1497261
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 01:41	WG1497261
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 01:41	WG1497261
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 01:41	WG1497261
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 01:41	WG1497261
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 01:41	WG1497261
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 01:41	WG1497261
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 01:41	WG1497261
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 01:41	WG1497261
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 01:41	WG1497261
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 01:41	WG1497261
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 01:41	WG1497261
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 01:41	WG1497261
Naphthalene	U		0.00100	0.00500	1	06/23/2020 01:41	WG1497261
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 01:41	WG1497261
Styrene	U		0.000118	0.00100	1	06/23/2020 01:41	WG1497261
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 01:41	WG1497261
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 01:41	WG1497261
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 01:41	WG1497261
Toluene	U		0.000278	0.00100	1	06/23/2020 01:41	WG1497261
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 01:41	WG1497261
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 01:41	WG1497261
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 01:41	WG1497261
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 01:41	WG1497261
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 01:41	WG1497261
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 01:41	WG1497261
o-Xylene	U		0.000174	0.00100	1	06/23/2020 01:41	WG1497261
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 01:41	WG1497261
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 01:41	WG1497261
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 01:41*	WG1497261
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/23/2020 01:41*	WG1497261
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*		*06/23/2020 01:41*	WG1497261

Method Blank (MB)

(MB) R3543608-1 06/24/20 21:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231128-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-10 06/24/20 21:57 • (DUP) R3543608-3 06/24/20 21:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1250	1280	1	1.74		5

L1231128-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-18 06/24/20 21:57 • (DUP) R3543608-4 06/24/20 21:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1070	1080	1	0.372		5

Laboratory Control Sample (LCS)

(LCS) R3543608-2 06/24/20 21:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8830	100	85.0-115	

Method Blank (MB)

(MB) R3543540-1 06/24/20 23:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231128-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-22 06/24/20 23:15 • (DUP) R3543540-3 06/24/20 23:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1220	1210	1	0.659		5

L1231153-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-04 06/24/20 23:15 • (DUP) R3543540-4 06/24/20 23:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2700	2780	1	2.93		5

Laboratory Control Sample (LCS)

(LCS) R3543540-2 06/24/20 23:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8900	101	85.0-115	

Method Blank (MB)

(MB) R3543730-1 06/27/20 15:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1230262-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1230262-17 06/27/20 15:06 • (DUP) R3543730-3 06/27/20 15:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.303	0.301	1	0.662		20

L1230912-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1230912-01 06/27/20 15:29 • (DUP) R3543730-6 06/27/20 15:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.105	0.108	1	2.82		20

Laboratory Control Sample (LCS)

(LCS) R3543730-2 06/27/20 15:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	5.00	4.03	101	90.0-110	

L1230262-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230262-19 06/27/20 15:10 • (MS) R3543730-4 06/27/20 15:11 • (MSD) R3543730-5 06/27/20 15:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.66	2.67	106	107	1	90.0-110			0.375	20

L1230912-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1230912-02 06/27/20 15:35 • (MS) R3543730-7 06/27/20 15:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.184	2.82	105	1	90.0-110	

Method Blank (MB)

(MB) R3544433-1 06/29/20 16:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231128-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-15 06/29/20 16:50 • (DUP) R3544433-6 06/29/20 16:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1231128-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-04 06/29/20 17:25 • (DUP) R3544433-8 06/29/20 17:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544433-2 06/29/20 16:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.92	98.0	90.0-110	

L1231128-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-07 06/29/20 16:34 • (MS) R3544433-4 06/29/20 16:35 • (MSD) R3544433-5 06/29/20 16:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.73	4.42	4.52	108	112	1	90.0-110		J5	2.24	20

L1231128-17 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231128-17 06/29/20 16:57 • (MS) R3544433-7 06/29/20 16:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.73	109	1	90.0-110	

Method Blank (MB)

(MB) R3544839-1 06/30/20 18:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231128-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-27 06/30/20 18:11 • (DUP) R3544839-3 06/30/20 18:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	10	0.000		20

Sample Narrative:

OS: diluted due to sulfide hit

L1231128-35 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-35 06/30/20 18:29 • (DUP) R3544839-6 06/30/20 18:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544839-2 06/30/20 18:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.14	104	90.0-110	

L1231128-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-30 06/30/20 18:20 • (MS) R3544839-4 06/30/20 18:21 • (MSD) R3544839-5 06/30/20 18:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.386	2.85	2.89	98.6	100	1	90.0-110			1.39	20

L1231153-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231153-01 06/30/20 18:36 • (MS) R3544839-7 06/30/20 18:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.48	99.2	1	90.0-110	

Method Blank (MB)

(MB) R3543775-1 06/27/20 20:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1230488-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1230488-02 06/27/20 20:34 • (DUP) R3543775-3 06/27/20 20:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00258	0.00199	1	0.000		20

L1231185-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231185-04 06/27/20 20:57 • (DUP) R3543775-6 06/27/20 20:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00249	0.00236	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543775-2 06/27/20 20:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0970	97.0	90.0-110	

L1231185-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231185-02 06/27/20 20:52 • (MS) R3543775-4 06/27/20 20:55 • (MSD) R3543775-5 06/27/20 20:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0985	0.0976	98.5	97.6	1	75.0-125			0.918	20

L1231486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231486-01 06/27/20 20:59 • (MS) R3543775-7 06/27/20 21:00 • (MSD) R3543775-8 06/27/20 21:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00240	0.0910	0.0988	88.6	96.4	1	75.0-125			8.22	20

Method Blank (MB)

(MB) R3543552-1 06/25/20 20:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231128-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-04 06/25/20 22:47 • (DUP) R3543552-3 06/25/20 23:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	95.6	97.0	1	1.51		15
Fluoride	1.39	1.41	1	1.43		15

L1231128-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-04 06/26/20 00:21 • (DUP) R3543552-5 06/26/20 00:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	316	308	50	2.60		15

L1231128-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-18 06/26/20 11:06 • (DUP) R3543552-8 06/26/20 11:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.13	1.12	1	0.0995		15
Sulfate	1.16	1.17	1	0.683	J	15

L1231128-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-18 06/26/20 11:42 • (DUP) R3543552-9 06/26/20 12:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	188	192	5	2.09		15

Laboratory Control Sample (LCS)

(LCS) R3543552-2 06/25/20 20:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.8	99.5	80.0-120	
Fluoride	8.00	7.96	99.5	80.0-120	
Sulfate	40.0	40.8	102	80.0-120	

L1231128-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231128-04 06/25/20 22:47 • (MS) R3543552-4 06/26/20 00:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	95.6	142	93.1	1	80.0-120	E
Fluoride	5.00	1.39	6.17	95.6	1	80.0-120	
Sulfate	50.0	357	379	44.8	1	80.0-120	E V

L1231128-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-16 06/26/20 08:43 • (MS) R3543552-6 06/26/20 09:01 • (MSD) R3543552-7 06/26/20 09:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	224	261	260	74.0	72.7	1	80.0-120	E V	E V	0.265	15
Fluoride	5.00	0.778	5.16	5.18	87.7	88.0	1	80.0-120			0.266	15
Sulfate	50.0	444	445	444	2.61	0.0724	1	80.0-120	E V	E V	0.286	15

Method Blank (MB)

(MB) R3544238-1 06/27/20 03:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231128-34 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-34 06/27/20 04:06 • (DUP) R3544238-3 06/27/20 04:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	0.588	1	200	J P1	15
Fluoride	U	U	1	0.000		15
Sulfate	U	1.00	1	200	J P1	15

L1231128-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-36 06/27/20 16:57 • (DUP) R3544238-5 06/27/20 17:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3544238-2 06/27/20 03:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	80.0-120	
Fluoride	8.00	8.10	101	80.0-120	
Sulfate	40.0	39.6	98.9	80.0-120	

L1231128-34 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231128-34 06/27/20 04:06 • (MS) R3544238-4 06/27/20 04:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	51.5	103	1	80.0-120	
Fluoride	5.00	U	4.88	97.6	1	80.0-120	
Sulfate	50.0	U	51.9	104	1	80.0-120	

L1231149-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231149-01 06/27/20 18:29 • (MS) R3544238-6 06/27/20 18:47 • (MSD) R3544238-7 06/27/20 19:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	33.9	80.2	80.8	92.7	93.8	1	80.0-120			0.656	15
Fluoride	5.00	0.289	5.02	5.05	94.6	95.3	1	80.0-120			0.657	15
Sulfate	50.0	48.7	95.6	95.8	93.9	94.2	1	80.0-120			0.133	15

Method Blank (MB)

(MB) R3541878-1 06/23/20 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541878-2 06/23/20 12:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00308	103	80.0-120	

L1230972-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230972-03 06/23/20 12:09 • (MS) R3541878-3 06/23/20 12:11 • (MSD) R3541878-4 06/23/20 12:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00295	0.00297	98.3	99.0	1	75.0-125			0.676	20

Method Blank (MB)

(MB) R3542120-1 06/23/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542120-2 06/23/20 21:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00265	88.3	80.0-120	

L1231128-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-19 06/23/20 21:41 • (MS) R3542120-3 06/23/20 21:43 • (MSD) R3542120-4 06/23/20 21:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00234	0.00216	78.0	72.0	1	75.0-125		J6	8.00	20

Method Blank (MB)

(MB) R3541597-1 06/22/20 17:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541597-2 06/22/20 17:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00284	94.7	80.0-120	

L1231128-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-21 06/22/20 17:20 • (MS) R3541597-3 06/22/20 17:22 • (MSD) R3541597-4 06/22/20 17:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00205	0.00206	68.3	68.6	1	75.0-125	J6	J6	0.434	20

Method Blank (MB)

(MB) R3542432-1 06/24/20 10:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542432-2 06/24/20 11:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00292	97.3	80.0-120	

L1231593-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231593-03 06/24/20 11:53 • (MS) R3542432-3 06/24/20 11:55 • (MSD) R3542432-4 06/24/20 11:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00295	0.00295	98.3	98.3	1	75.0-125			0.000	20

Method Blank (MB)

(MB) R3543166-1 06/25/20 22:14

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543166-2 06/25/20 22:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.986	98.6	80.0-120	

L1230952-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1230952-01 06/25/20 22:19 • (MS) R3543166-4 06/25/20 22:24 • (MSD) R3543166-5 06/25/20 22:27

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.218	1.25	1.22	103	99.8	1	75.0-125			2.68	20

Method Blank (MB)

(MB) R3543383-1 06/26/20 07:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543383-2 06/26/20 07:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.990	99.0	80.0-120	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/26/20 07:57 • (MS) R3543383-4 06/26/20 08:03 • (MSD) R3543383-5 06/26/20 08:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.163	1.14	1.17	97.5	101	1	75.0-125			3.09	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543159-1 06/25/20 21:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543159-2 06/25/20 21:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.999	99.9	80.0-120	

L1231059-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231059-13 06/25/20 21:06 • (MS) R3543159-4 06/25/20 21:12 • (MSD) R3543159-5 06/25/20 21:14

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.0864	1.09	1.09	101	101	1	75.0-125			0.0261	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543129-1 06/25/20 21:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543129-2 06/25/20 21:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0485	97.0	80.0-120	
Barium,Dissolved	0.0500	0.0492	98.5	80.0-120	
Cadmium,Dissolved	0.0500	0.0502	100	80.0-120	
Chromium,Dissolved	0.0500	0.0499	99.8	80.0-120	
Cobalt,Dissolved	0.0500	0.0502	100	80.0-120	
Iron,Dissolved	5.00	5.03	101	80.0-120	
Lead,Dissolved	0.0500	0.0478	95.5	80.0-120	
Manganese,Dissolved	0.0500	0.0496	99.3	80.0-120	
Nickel,Dissolved	0.0500	0.0502	100	80.0-120	
Selenium,Dissolved	0.0500	0.0500	100	80.0-120	
Uranium,Dissolved	0.0500	0.0480	96.0	80.0-120	
Vanadium,Dissolved	0.0500	0.0492	98.4	80.0-120	

L1231071-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231071-03 06/25/20 21:08 • (MS) R3543129-4 06/25/20 21:14 • (MSD) R3543129-5 06/25/20 21:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00200	0.0521	0.0496	100	95.1	1	75.0-125			4.97	20
Barium,Dissolved	0.0500	0.135	0.184	0.178	98.0	86.1	1	75.0-125			3.29	20
Cadmium,Dissolved	0.0500	0.000811	0.0514	0.0525	101	103	1	75.0-125			2.01	20

L1231071-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231071-03 06/25/20 21:08 • (MS) R3543129-4 06/25/20 21:14 • (MSD) R3543129-5 06/25/20 21:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0501	0.0481	100	96.1	1	75.0-125			4.14	20
Cobalt,Dissolved	0.0500	0.0133	0.0636	0.0599	101	93.1	1	75.0-125			6.01	20
Iron,Dissolved	5.00	0.952	6.34	6.00	108	101	1	75.0-125			5.62	20
Lead,Dissolved	0.0500	U	0.0483	0.0481	96.5	96.1	1	75.0-125			0.378	20
Manganese,Dissolved	0.0500	6.74	6.83	6.46	197	0.000	1	75.0-125	V	V	5.60	20
Nickel,Dissolved	0.0500	0.0347	0.0864	0.0807	103	91.9	1	75.0-125			6.82	20
Selenium,Dissolved	0.0500	U	0.0511	0.0491	102	98.3	1	75.0-125			3.84	20
Uranium,Dissolved	0.0500	U	0.0515	0.0516	103	103	1	75.0-125			0.210	20
Vanadium,Dissolved	0.0500	U	0.0511	0.0485	102	97.1	1	75.0-125			5.22	20

Method Blank (MB)

(MB) R3543505-1 06/26/20 13:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543505-2 06/26/20 13:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0516	103	80.0-120	
Barium,Dissolved	0.0500	0.0478	95.7	80.0-120	
Cadmium,Dissolved	0.0500	0.0536	107	80.0-120	
Chromium,Dissolved	0.0500	0.0536	107	80.0-120	
Cobalt,Dissolved	0.0500	0.0532	106	80.0-120	
Iron,Dissolved	5.00	5.55	111	80.0-120	
Lead,Dissolved	0.0500	0.0502	100	80.0-120	
Manganese,Dissolved	0.0500	0.0514	103	80.0-120	
Nickel,Dissolved	0.0500	0.0541	108	80.0-120	
Selenium,Dissolved	0.0500	0.0519	104	80.0-120	
Uranium,Dissolved	0.0500	0.0508	102	80.0-120	
Vanadium,Dissolved	0.0500	0.0518	104	80.0-120	

L1231128-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-20 06/26/20 13:58 • (MS) R3543505-4 06/26/20 14:05 • (MSD) R3543505-5 06/26/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0357	0.0845	0.0872	97.6	103	1	75.0-125			3.16	20
Barium,Dissolved	0.0500	0.0178	0.0673	0.0681	98.9	101	1	75.0-125			1.22	20
Cadmium,Dissolved	0.0500	U	0.0529	0.0550	106	110	1	75.0-125			3.93	20

L1231128-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-20 06/26/20 13:58 • (MS) R3543505-4 06/26/20 14:05 • (MSD) R3543505-5 06/26/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0504	0.0521	101	104	1	75.0-125			3.45	20
Cobalt,Dissolved	0.0500	0.00189	0.0515	0.0527	99.3	102	1	75.0-125			2.28	20
Iron,Dissolved	5.00	0.0695	5.07	5.18	100	102	1	75.0-125			2.29	20
Lead,Dissolved	0.0500	U	0.0489	0.0511	97.9	102	1	75.0-125			4.30	20
Manganese,Dissolved	0.0500	0.364	0.415	0.418	103	109	1	75.0-125			0.738	20
Nickel,Dissolved	0.0500	0.00343	0.0528	0.0547	98.7	103	1	75.0-125			3.52	20
Selenium,Dissolved	0.0500	U	0.0527	0.0537	105	107	1	75.0-125			1.86	20
Uranium,Dissolved	0.0500	U	0.0544	0.0561	109	112	1	75.0-125			3.08	20
Vanadium,Dissolved	0.0500	U	0.0513	0.0530	103	106	1	75.0-125			3.27	20

Method Blank (MB)

(MB) R3543678-1 06/27/20 00:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543678-2 06/27/20 00:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0502	100	80.0-120	
Barium	0.0500	0.0504	101	80.0-120	
Cadmium	0.0500	0.0532	106	80.0-120	
Calcium	5.00	5.34	107	80.0-120	
Chromium	0.0500	0.0510	102	80.0-120	
Cobalt	0.0500	0.0516	103	80.0-120	
Iron	5.00	5.20	104	80.0-120	
Lead	0.0500	0.0524	105	80.0-120	
Manganese	0.0500	0.0498	99.7	80.0-120	
Nickel	0.0500	0.0519	104	80.0-120	
Potassium	5.00	5.16	103	80.0-120	
Selenium	0.0500	0.0503	101	80.0-120	
Sodium	5.00	5.23	105	80.0-120	
Uranium	0.0500	0.0513	103	80.0-120	
Vanadium	0.0500	0.0494	98.9	80.0-120	

Received by OCD: 6/23/2021 4:05:29 PM

L1231071-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231071-01 06/27/20 00:27 • (MS) R3543678-4 06/27/20 00:34 • (MSD) R3543678-5 06/27/20 00:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	U	0.0513	0.0501	103	100	1	75.0-125			2.41	20
Barium	0.0500	0.109	0.158	0.156	99.1	94.0	1	75.0-125			1.64	20
Cadmium	0.0500	0.00252	0.0557	0.0569	106	109	1	75.0-125			2.14	20
Calcium	5.00	54.1	58.8	58.2	94.1	81.4	1	75.0-125			1.09	20
Chromium	0.0500	U	0.0509	0.0515	102	103	1	75.0-125			1.22	20
Cobalt	0.0500	0.00581	0.0577	0.0571	104	103	1	75.0-125			1.12	20
Potassium	5.00	9.86	14.8	14.7	99.0	97.6	1	75.0-125			0.488	20
Iron	5.00	0.126	5.34	5.38	104	105	1	75.0-125			0.910	20
Lead	0.0500	U	0.0534	0.0525	107	105	1	75.0-125			1.79	20
Manganese	0.0500	1.14	1.19	1.19	99.1	116	1	75.0-125			0.710	20
Nickel	0.0500	0.0232	0.0752	0.0749	104	103	1	75.0-125			0.401	20
Selenium	0.0500	U	0.0486	0.0518	97.2	104	1	75.0-125			6.35	20
Sodium	5.00	11.8	16.9	16.8	102	100	1	75.0-125			0.562	20
Uranium	0.0500	U	0.0521	0.0514	104	103	1	75.0-125			1.23	20
Vanadium	0.0500	U	0.0508	0.0505	102	101	1	75.0-125			0.550	20

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3543770-1 06/27/20 19:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543770-2 06/27/20 19:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0486	97.2	80.0-120	
Barium	0.0500	0.0509	102	80.0-120	
Cadmium	0.0500	0.0507	101	80.0-120	
Calcium	5.00	4.87	97.4	80.0-120	
Chromium	0.0500	0.0496	99.1	80.0-120	
Cobalt	0.0500	0.0499	99.7	80.0-120	
Iron	5.00	5.13	103	80.0-120	
Lead	0.0500	0.0499	99.7	80.0-120	
Manganese	0.0500	0.0500	99.9	80.0-120	
Nickel	0.0500	0.0498	99.7	80.0-120	
Potassium	5.00	4.72	94.4	80.0-120	
Selenium	0.0500	0.0501	100	80.0-120	
Sodium	5.00	4.79	95.7	80.0-120	
Uranium	0.0500	0.0492	98.4	80.0-120	
Vanadium	0.0500	0.0484	96.8	80.0-120	

L1231128-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-07 06/27/20 19:45 • (MS) R3543770-4 06/27/20 19:52 • (MSD) R3543770-5 06/27/20 19:56

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00368	0.0519	0.0510	96.5	94.6	1	75.0-125			1.91	20
Barium	0.0500	0.00896	0.0605	0.0612	103	105	1	75.0-125			1.12	20
Cadmium	0.0500	U	0.0514	0.0522	103	104	1	75.0-125			1.47	20
Calcium	5.00	515	525	522	209	133	1	75.0-125	V	V	0.731	20
Chromium	0.0500	U	0.0499	0.0494	99.7	98.7	1	75.0-125			1.01	20
Cobalt	0.0500	U	0.0484	0.0468	96.7	93.5	1	75.0-125			3.38	20
Potassium	5.00	1.51	6.44	6.13	98.6	92.4	1	75.0-125			4.92	20
Iron	5.00	U	4.86	4.69	97.2	93.9	1	75.0-125			3.46	20
Lead	0.0500	U	0.0501	0.0504	100	101	1	75.0-125			0.597	20
Manganese	0.0500	0.00741	0.0559	0.0535	97.1	92.1	1	75.0-125			4.52	20
Nickel	0.0500	0.00123	0.0479	0.0472	93.3	91.9	1	75.0-125			1.51	20
Selenium	0.0500	0.00631	0.0559	0.0555	99.2	98.3	1	75.0-125			0.830	20
Sodium	5.00	234	237	234	72.4	9.14	1	75.0-125	V	V	1.34	20
Uranium	0.0500	0.0433	0.0951	0.0944	104	102	1	75.0-125			0.730	20
Vanadium	0.0500	0.0198	0.0688	0.0681	97.9	96.5	1	75.0-125			0.985	20

Method Blank (MB)

(MB) R3544019-1 06/28/20 22:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3544019-2 06/28/20 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0489	97.7	80.0-120	
Barium	0.0500	0.0516	103	80.0-120	
Cadmium	0.0500	0.0512	102	80.0-120	
Calcium	5.00	5.01	100	80.0-120	
Chromium	0.0500	0.0509	102	80.0-120	
Cobalt	0.0500	0.0513	103	80.0-120	
Iron	5.00	5.11	102	80.0-120	
Lead	0.0500	0.0497	99.4	80.0-120	
Manganese	0.0500	0.0507	101	80.0-120	
Nickel	0.0500	0.0510	102	80.0-120	
Potassium	5.00	4.95	99.1	80.0-120	
Selenium	0.0500	0.0490	98.1	80.0-120	
Sodium	5.00	5.12	102	80.0-120	
Uranium	0.0500	0.0507	101	80.0-120	
Vanadium	0.0500	0.0497	99.3	80.0-120	

L1231128-27 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-27 06/28/20 22:28 • (MS) R3544019-4 06/28/20 22:35 • (MSD) R3544019-5 06/28/20 22:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00595	0.0535	0.0546	95.1	97.3	1	75.0-125			2.10	20
Barium	0.0500	9.81	9.92	9.87	225	106	1	75.0-125	V		0.599	20
Cadmium	0.0500	U	0.0520	0.0514	104	103	1	75.0-125			1.26	20
Calcium	5.00	96.4	99.5	99.6	62.8	64.4	1	75.0-125	V	V	0.0820	20
Chromium	0.0500	U	0.0479	0.0485	95.8	97.1	1	75.0-125			1.31	20
Cobalt	0.0500	U	0.0477	0.0488	95.3	97.6	1	75.0-125			2.33	20
Potassium	5.00	1.10	5.77	5.98	93.3	97.6	1	75.0-125			3.64	20
Iron	5.00	0.0693	4.91	4.93	96.9	97.2	1	75.0-125			0.325	20
Lead	0.0500	0.00484	0.0575	0.0572	105	105	1	75.0-125			0.600	20
Manganese	0.0500	0.0692	0.113	0.115	88.2	92.2	1	75.0-125			1.74	20
Nickel	0.0500	U	0.0480	0.0493	96.1	98.6	1	75.0-125			2.62	20
Selenium	0.0500	U	0.0518	0.0491	104	98.1	1	75.0-125			5.50	20
Sodium	5.00	426	411	420	0.000	0.000	1	75.0-125	V	V	2.29	20
Uranium	0.0500	U	0.0543	0.0541	109	108	1	75.0-125			0.294	20
Vanadium	0.0500	U	0.0484	0.0500	96.7	100	1	75.0-125			3.37	20

Method Blank (MB)

(MB) R3542881-2 06/24/20 23:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542881-1 06/24/20 20:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.40	98.2	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3542897-2 06/25/20 04:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0425	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3542897-1 06/25/20 03:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.68	121	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

Method Blank (MB)

(MB) R3543451-3 06/25/20 11:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543451-2 06/25/20 10:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.50	100	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3543306-2 06/25/20 16:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543306-1 06/25/20 15:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.71	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.4*	*78.0-120*	

Method Blank (MB)

(MB) R3543307-2 06/25/20 16:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543307-1 06/25/20 15:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.71	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.4*	*78.0-120*	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/25/20 23:56 • (MS) R3543307-3 06/26/20 01:27 • (MSD) R3543307-4 06/26/20 01:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.229	5.86	5.18	102	90.0	1	10.0-160			12.3	22
(S) a,a,a-Trifluorotoluene(FID)					*100*	*98.4*		*78.0-120*				

Method Blank (MB)

(MB) R3543700-2 06/26/20 13:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0338	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543700-1 06/26/20 12:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.09	111	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3543808-2 06/27/20 07:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543808-1 06/27/20 06:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.89	107	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

Method Blank (MB)

(MB) R3543809-2 06/27/20 07:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543809-1 06/27/20 06:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.89	107	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

Method Blank (MB)

(MB) R3542523-3 06/22/20 19:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000340	J	0.0000962	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100

Method Blank (MB)

(MB) R3542523-3 06/22/20 19:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542523-1 06/22/20 18:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0249	99.6	19.0-160	
Benzene	0.00500	0.00497	99.4	70.0-123	
Bromodichloromethane	0.00500	0.00513	103	75.0-120	
Bromoform	0.00500	0.00512	102	68.0-132	
Bromomethane	0.00500	0.00380	76.0	10.0-160	
n-Butylbenzene	0.00500	0.00436	87.2	73.0-125	
sec-Butylbenzene	0.00500	0.00429	85.8	75.0-125	
Carbon disulfide	0.00500	0.00500	100	61.0-128	
Chlorobenzene	0.00500	0.00472	94.4	80.0-121	
Chlorodibromomethane	0.00500	0.00504	101	77.0-125	
Chloroethane	0.00500	0.00563	113	47.0-150	
Chloroform	0.00500	0.00551	110	73.0-120	
Chloromethane	0.00500	0.00339	67.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00464	92.8	80.0-122	
1,1-Dichloroethane	0.00500	0.00504	101	70.0-126	
1,2-Dichloroethane	0.00500	0.00559	112	70.0-128	
1,1-Dichloroethene	0.00500	0.00483	96.6	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00504	101	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00579	116	73.0-120	
1,2-Dichloropropane	0.00500	0.00467	93.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00539	108	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00472	94.4	78.0-124	
Ethylbenzene	0.00500	0.00456	91.2	79.0-123	
2-Hexanone	0.0250	0.0205	82.0	67.0-149	

Laboratory Control Sample (LCS)

(LCS) R3542523-1 06/22/20 18:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Isopropylbenzene	0.00500	0.00463	92.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00451	90.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0250	100	44.0-160	
Methylene Chloride	0.00500	0.00500	100	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0242	96.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00541	108	68.0-125	
Naphthalene	0.00500	0.00435	87.0	54.0-135	
n-Propylbenzene	0.00500	0.00454	90.8	77.0-124	
Styrene	0.00500	0.00402	80.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00469	93.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00411	82.2	65.0-130	
Tetrachloroethene	0.00500	0.00495	99.0	72.0-132	
Toluene	0.00500	0.00514	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00537	107	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00490	98.0	80.0-120	
Trichloroethene	0.00500	0.00544	109	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00442	88.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00452	90.4	76.0-122	
Vinyl chloride	0.00500	0.00460	92.0	67.0-131	
Xylenes, Total	0.0150	0.0138	92.0	79.0-123	
o-Xylene	0.00500	0.00431	86.2	80.0-122	
m&p-Xylenes	0.0100	0.00946	94.6	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

Method Blank (MB)

(MB) R3543124-2 06/22/20 23:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543124-2 06/22/20 23:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543124-1 06/22/20 22:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0401	160	19.0-160	
Benzene	0.00500	0.00461	92.2	70.0-123	
Bromodichloromethane	0.00500	0.00564	113	75.0-120	
Bromoform	0.00500	0.00600	120	68.0-132	
Bromomethane	0.00500	0.00366	73.2	10.0-160	
n-Butylbenzene	0.00500	0.00364	72.8	73.0-125	J4
sec-Butylbenzene	0.00500	0.00381	76.2	75.0-125	
Carbon disulfide	0.00500	0.00492	98.4	61.0-128	
Carbon tetrachloride	0.00500	0.00494	98.8	68.0-126	
Chlorobenzene	0.00500	0.00477	95.4	80.0-121	
Chlorodibromomethane	0.00500	0.00549	110	77.0-125	
Chloroethane	0.00500	0.00433	86.6	47.0-150	
Chloroform	0.00500	0.00507	101	73.0-120	
Chloromethane	0.00500	0.00644	129	41.0-142	
1,2-Dibromoethane	0.00500	0.00558	112	80.0-122	
1,1-Dichloroethane	0.00500	0.00510	102	70.0-126	
1,2-Dichloroethane	0.00500	0.00575	115	70.0-128	
1,1-Dichloroethene	0.00500	0.00445	89.0	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00501	100	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00437	87.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00472	94.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00473	94.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00460	92.0	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543124-1 06/22/20 22:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00462	92.4	79.0-123	
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00416	83.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00389	77.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0333	133	44.0-160	
Methylene Chloride	0.00500	0.00429	85.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	100	68.0-142	
Methyl tert-butyl ether	0.00500	0.00481	96.2	68.0-125	
Naphthalene	0.00500	0.00328	65.6	54.0-135	
n-Propylbenzene	0.00500	0.00397	79.4	77.0-124	
Styrene	0.00500	0.00447	89.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00538	108	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00483	96.6	65.0-130	
Tetrachloroethene	0.00500	0.00593	119	72.0-132	
Toluene	0.00500	0.00454	90.8	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00551	110	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00522	104	80.0-120	
Trichloroethene	0.00500	0.00519	104	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00383	76.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00397	79.4	76.0-122	
Vinyl chloride	0.00500	0.00466	93.2	67.0-131	
Xylenes, Total	0.0150	0.0135	90.0	79.0-123	
o-Xylene	0.00500	0.00438	87.6	80.0-122	
m&p-Xylenes	0.0100	0.00916	91.6	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*123*	*70.0-130*	

Method Blank (MB)

(MB) R3542878-4 06/24/20 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Carbon tetrachloride	U		0.000128	0.00100
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.4*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542878-1 06/24/20 19:17 • (LCSD) R3542878-2 06/24/20 19:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.00500	0.00516	0.00525	103	105	68.0-126			1.73	20
(S) Toluene-d8				*104*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.6*	*94.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*101*	*99.6*	*70.0-130*				

Method Blank (MB)

(MB) R3542925-3 06/25/20 03:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542925-3 06/25/20 03:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542925-1 06/25/20 02:01 • (LCSD) R3542925-2 06/25/20 02:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0283	0.0273	113	109	19.0-160			3.60	27
Benzene	0.00500	0.00496	0.00475	99.2	95.0	70.0-123			4.33	20
Bromodichloromethane	0.00500	0.00512	0.00500	102	100	75.0-120			2.37	20
Bromoform	0.00500	0.00467	0.00435	93.4	87.0	68.0-132			7.10	20
Bromomethane	0.00500	0.00209	0.00198	41.8	39.6	10.0-160			5.41	25
n-Butylbenzene	0.00500	0.00467	0.00454	93.4	90.8	73.0-125			2.82	20
sec-Butylbenzene	0.00500	0.00448	0.00445	89.6	89.0	75.0-125			0.672	20
Carbon disulfide	0.00500	0.00513	0.00466	103	93.2	61.0-128			9.60	20
Carbon tetrachloride	0.00500	0.00508	0.00471	102	94.2	68.0-126			7.56	20
Chlorobenzene	0.00500	0.00467	0.00448	93.4	89.6	80.0-121			4.15	20
Chlorodibromomethane	0.00500	0.00464	0.00458	92.8	91.6	77.0-125			1.30	20
Chloroethane	0.00500	0.00564	0.00508	113	102	47.0-150			10.4	20
Chloroform	0.00500	0.00514	0.00506	103	101	73.0-120			1.57	20
Chloromethane	0.00500	0.00436	0.00411	87.2	82.2	41.0-142			5.90	20
1,2-Dibromoethane	0.00500	0.00469	0.00458	93.8	91.6	80.0-122			2.37	20
1,1-Dichloroethane	0.00500	0.00488	0.00492	97.6	98.4	70.0-126			0.816	20
1,2-Dichloroethane	0.00500	0.00559	0.00508	112	102	70.0-128			9.56	20
1,1-Dichloroethene	0.00500	0.00473	0.00449	94.6	89.8	71.0-124			5.21	20
cis-1,2-Dichloroethene	0.00500	0.00468	0.00484	93.6	96.8	73.0-120			3.36	20
trans-1,2-Dichloroethene	0.00500	0.00498	0.00489	99.6	97.8	73.0-120			1.82	20
1,2-Dichloropropane	0.00500	0.00499	0.00477	99.8	95.4	77.0-125			4.51	20
cis-1,3-Dichloropropene	0.00500	0.00515	0.00490	103	98.0	80.0-123			4.98	20
trans-1,3-Dichloropropene	0.00500	0.00442	0.00425	88.4	85.0	78.0-124			3.92	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542925-1 06/25/20 02:01 • (LCSD) R3542925-2 06/25/20 02:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00458	0.00456	91.6	91.2	79.0-123			0.438	20
2-Hexanone	0.0250	0.0202	0.0200	80.8	80.0	67.0-149			0.995	20
Isopropylbenzene	0.00500	0.00424	0.00415	84.8	83.0	76.0-127			2.15	20
p-Isopropyltoluene	0.00500	0.00457	0.00462	91.4	92.4	76.0-125			1.09	20
2-Butanone (MEK)	0.0250	0.0234	0.0219	93.6	87.6	44.0-160			6.62	20
Methylene Chloride	0.00500	0.00522	0.00493	104	98.6	67.0-120			5.71	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0250	0.0241	100	96.4	68.0-142			3.67	20
Methyl tert-butyl ether	0.00500	0.00523	0.00481	105	96.2	68.0-125			8.37	20
Naphthalene	0.00500	0.00423	0.00407	84.6	81.4	54.0-135			3.86	20
n-Propylbenzene	0.00500	0.00480	0.00491	96.0	98.2	77.0-124			2.27	20
Styrene	0.00500	0.00456	0.00447	91.2	89.4	73.0-130			1.99	20
1,1,1,2-Tetrachloroethane	0.00500	0.00454	0.00447	90.8	89.4	75.0-125			1.55	20
1,1,2,2-Tetrachloroethane	0.00500	0.00483	0.00465	96.6	93.0	65.0-130			3.80	20
Tetrachloroethene	0.00500	0.00465	0.00423	93.0	84.6	72.0-132			9.46	20
Toluene	0.00500	0.00452	0.00443	90.4	88.6	79.0-120			2.01	20
1,1,1-Trichloroethane	0.00500	0.00506	0.00483	101	96.6	73.0-124			4.65	20
1,1,2-Trichloroethane	0.00500	0.00469	0.00460	93.8	92.0	80.0-120			1.94	20
Trichloroethene	0.00500	0.00533	0.00508	107	102	78.0-124			4.80	20
1,2,4-Trimethylbenzene	0.00500	0.00473	0.00463	94.6	92.6	76.0-121			2.14	20
1,3,5-Trimethylbenzene	0.00500	0.00486	0.00488	97.2	97.6	76.0-122			0.411	20
Vinyl chloride	0.00500	0.00496	0.00469	99.2	93.8	67.0-131			5.60	20
Xylenes, Total	0.0150	0.0132	0.0132	88.0	88.0	79.0-123			0.000	20
o-Xylene	0.00500	0.00426	0.00432	85.2	86.4	80.0-122			1.40	20
m&p-Xylenes	0.0100	0.00893	0.00892	89.3	89.2	80.0-122			0.112	20
(S) Toluene-d8				*99.4*	*99.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.9*	*94.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*117*	*110*	*70.0-130*				

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543513-3 06/25/20 23:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543513-3 06/25/20 23:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*114*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543513-1 06/25/20 21:04 • (LCSD) R3543513-2 06/25/20 22:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0314	0.0320	126	128	19.0-160			1.89	27
Benzene	0.00500	0.00499	0.00510	99.8	102	70.0-123			2.18	20
Bromodichloromethane	0.00500	0.00504	0.00516	101	103	75.0-120			2.35	20
Bromoform	0.00500	0.00563	0.00593	113	119	68.0-132			5.19	20
Bromomethane	0.00500	0.00507	0.00532	101	106	10.0-160			4.81	25
n-Butylbenzene	0.00500	0.00435	0.00444	87.0	88.8	73.0-125			2.05	20
sec-Butylbenzene	0.00500	0.00437	0.00453	87.4	90.6	75.0-125			3.60	20
Carbon disulfide	0.00500	0.00441	0.00458	88.2	91.6	61.0-128			3.78	20
Carbon tetrachloride	0.00500	0.00536	0.00531	107	106	68.0-126			0.937	20
Chlorobenzene	0.00500	0.00612	0.00588	122	118	80.0-121	J4		4.00	20
Chlorodibromomethane	0.00500	0.00576	0.00588	115	118	77.0-125			2.06	20
Chloroethane	0.00500	0.00479	0.00501	95.8	100	47.0-150			4.49	20
Chloroform	0.00500	0.00515	0.00508	103	102	73.0-120			1.37	20
Chloromethane	0.00500	0.00495	0.00479	99.0	95.8	41.0-142			3.29	20
1,2-Dibromoethane	0.00500	0.00521	0.00532	104	106	80.0-122			2.09	20
1,1-Dichloroethane	0.00500	0.00502	0.00494	100	98.8	70.0-126			1.61	20
1,2-Dichloroethane	0.00500	0.00493	0.00498	98.6	99.6	70.0-128			1.01	20
1,1-Dichloroethene	0.00500	0.00516	0.00511	103	102	71.0-124			0.974	20
cis-1,2-Dichloroethene	0.00500	0.00526	0.00518	105	104	73.0-120			1.53	20
trans-1,2-Dichloroethene	0.00500	0.00515	0.00513	103	103	73.0-120			0.389	20
1,2-Dichloropropane	0.00500	0.00463	0.00464	92.6	92.8	77.0-125			0.216	20
cis-1,3-Dichloropropene	0.00500	0.00480	0.00479	96.0	95.8	80.0-123			0.209	20
trans-1,3-Dichloropropene	0.00500	0.00493	0.00485	98.6	97.0	78.0-124			1.64	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543513-1 06/25/20 21:04 • (LCSD) R3543513-2 06/25/20 22:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00554	0.00566	111	113	79.0-123			2.14	20
2-Hexanone	0.0250	0.0248	0.0246	99.2	98.4	67.0-149			0.810	20
Isopropylbenzene	0.00500	0.00573	0.00579	115	116	76.0-127			1.04	20
p-Isopropyltoluene	0.00500	0.00445	0.00442	89.0	88.4	76.0-125			0.676	20
2-Butanone (MEK)	0.0250	0.0266	0.0261	106	104	44.0-160			1.90	20
Methylene Chloride	0.00500	0.00472	0.00499	94.4	99.8	67.0-120			5.56	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0259	0.0260	104	104	68.0-142			0.385	20
Methyl tert-butyl ether	0.00500	0.00460	0.00474	92.0	94.8	68.0-125			3.00	20
Naphthalene	0.00500	0.00408	0.00445	81.6	89.0	54.0-135			8.68	20
n-Propylbenzene	0.00500	0.00446	0.00433	89.2	86.6	77.0-124			2.96	20
Styrene	0.00500	0.00553	0.00541	111	108	73.0-130			2.19	20
1,1,1,2-Tetrachloroethane	0.00500	0.00578	0.00580	116	116	75.0-125			0.345	20
1,1,2,2-Tetrachloroethane	0.00500	0.00427	0.00428	85.4	85.6	65.0-130			0.234	20
Tetrachloroethene	0.00500	0.00666	0.00708	133	142	72.0-132	J4	J4	6.11	20
Toluene	0.00500	0.00542	0.00526	108	105	79.0-120			3.00	20
1,1,1-Trichloroethane	0.00500	0.00535	0.00531	107	106	73.0-124			0.750	20
1,1,2-Trichloroethane	0.00500	0.00565	0.00569	113	114	80.0-120			0.705	20
Trichloroethene	0.00500	0.00593	0.00590	119	118	78.0-124			0.507	20
1,2,4-Trimethylbenzene	0.00500	0.00401	0.00405	80.2	81.0	76.0-121			0.993	20
1,3,5-Trimethylbenzene	0.00500	0.00426	0.00431	85.2	86.2	76.0-122			1.17	20
Vinyl chloride	0.00500	0.00519	0.00516	104	103	67.0-131			0.580	20
Xylenes, Total	0.0150	0.0162	0.0159	108	106	79.0-123			1.87	20
o-Xylene	0.00500	0.00526	0.00525	105	105	80.0-122			0.190	20
m&p-Xylenes	0.0100	0.0109	0.0107	109	107	80.0-122			1.85	20
(S) Toluene-d8				*108*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*104*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*107*	*106*	*70.0-130*				

Method Blank (MB)

(MB) R3543771-1 06/27/20 11:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*57.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543771-2 06/27/20 11:46 • (LCSD) R3543771-3 06/27/20 12:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.41	1.35	94.0	90.0	50.0-150			4.35	20
(S) o-Terphenyl				*84.5*	*86.0*	*31.0-160*				

Method Blank (MB)

(MB) R3543272-1 06/25/20 23:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*52.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543272-2 06/25/20 23:57 • (LCSD) R3543272-3 06/26/20 00:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.33	1.34	88.7	89.3	50.0-150			0.749	20
(S) o-Terphenyl				*93.5*	*93.5*	*31.0-160*				

Method Blank (MB)

(MB) R3541823-2 06/22/20 18:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acenaphthene	U		0.0000886	0.00100
Acenaphthylene	U		0.0000921	0.00100
Acetophenone	U		0.000208	0.0100
Anthracene	U		0.0000804	0.00100
Atrazine	U		0.000255	0.0100
Benzaldehyde	U		0.00169	0.0100
Benzo(a)anthracene	U		0.000199	0.00100
Benzo(b)fluoranthene	U		0.000130	0.00100
Benzo(k)fluoranthene	U		0.000120	0.00100
Benzo(g,h,i)perylene	U		0.000121	0.00100
Benzo(a)pyrene	U		0.0000381	0.000200
Biphenyl	U		0.000790	0.0100
Bis(2-chlorethoxy)methane	U		0.000116	0.0100
Bis(2-chloroethyl)ether	U		0.000137	0.0100
2,2-Oxybis(1-Chloropropane)	U		0.000210	0.0100
4-Bromophenyl-phenylether	U		0.0000877	0.0100
Caprolactam	U		0.000309	0.0100
Carbazole	U		0.000111	0.0100
4-Chloroaniline	U		0.000234	0.0100
2-Chloronaphthalene	U		0.0000648	0.00100
4-Chlorophenyl-phenylether	U		0.0000926	0.0100
Chrysene	U		0.000130	0.00100
Dibenz(a,h)anthracene	U		0.0000644	0.000200
Dibenzofuran	U		0.0000970	0.0100
3,3-Dichlorobenzidine	U		0.000212	0.0100
2,4-Dinitrotoluene	U		0.0000983	0.0100
2,6-Dinitrotoluene	U		0.000250	0.0100
Fluoranthene	U		0.000102	0.00100
Fluorene	U		0.0000844	0.00100
Hexachlorobenzene	U		0.0000755	0.00100
Hexachloro-1,3-butadiene	U		0.0000968	0.0100
Hexachlorocyclopentadiene	U		0.0000598	0.0100
Hexachloroethane	U		0.000127	0.0100
Indeno(1,2,3-cd)pyrene	U		0.000279	0.00100
Isophorone	U		0.000143	0.0100
1-Methylnaphthalene	U		0.0000790	0.00100
2-Methylnaphthalene	U		0.000117	0.00100
Naphthalene	U		0.000159	0.00100
2-Nitroaniline	U		0.000102	0.0100
3-Nitroaniline	U		0.0000869	0.0100

Method Blank (MB)

(MB) R3541823-2 06/22/20 18:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Nitroaniline	U		0.0000910	0.0100
Nitrobenzene	U		0.000297	0.0100
n-Nitrosodiphenylamine	U		0.00237	0.0100
n-Nitrosodi-n-propylamine	U		0.000261	0.0100
Phenanthrene	U		0.000112	0.00100
Benzylbutyl phthalate	U		0.000765	0.00300
Bis(2-ethylhexyl)phthalate	U		0.000895	0.00300
Di-n-butyl phthalate	U		0.000453	0.00300
Diethyl phthalate	U		0.000287	0.00300
Dimethyl phthalate	U		0.000260	0.00300
Di-n-octyl phthalate	U		0.000932	0.00300
Pyrene	U		0.000107	0.00100
1,2,4-Trichlorobenzene	U		0.0000698	0.0100
4-Chloro-3-methylphenol	U		0.000131	0.0100
2-Chlorophenol	U		0.000133	0.0100
2-Methylphenol	U		0.0000929	0.0100
3&4-Methyl Phenol	U		0.000168	0.0100
2,4-Dichlorophenol	U		0.000102	0.0100
2,4-Dimethylphenol	U		0.0000636	0.0100
4,6-Dinitro-2-methylphenol	U		0.00112	0.0100
2,4-Dinitrophenol	U		0.00593	0.0100
2-Nitrophenol	U		0.000117	0.0100
4-Nitrophenol	U		0.000143	0.0100
Pentachlorophenol	U		0.000313	0.0100
Phenol	U		0.00433	0.0100
2,4,5-Trichlorophenol	U		0.000109	0.0100
2,4,6-Trichlorophenol	U		0.000100	0.0100
(S) Nitrobenzene-d5	*74.7*			*10.0-127*
(S) 2-Fluorobiphenyl	*80.7*			*10.0-130*
(S) p-Terphenyl-d14	*86.4*			*10.0-128*
(S) Phenol-d5	*25.7*			*10.0-120*
(S) 2-Fluorophenol	*47.2*			*10.0-120*
(S) 2,4,6-Tribromophenol	*88.5*			*10.0-155*

Laboratory Control Sample (LCS)

(LCS) R3541823-1 06/22/20 18:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.0500	0.0396	79.2	41.0-120	
Acenaphthylene	0.0500	0.0403	80.6	43.0-120	
Acetophenone	0.0500	0.0441	88.2	29.0-120	
Anthracene	0.0500	0.0423	84.6	45.0-120	
Atrazine	0.0500	0.0492	98.4	39.0-141	
Benzaldehyde	0.0500	0.124	248	10.0-160	J4
Benzo(a)anthracene	0.0500	0.0465	93.0	47.0-120	
Benzo(b)fluoranthene	0.0500	0.0460	92.0	46.0-120	
Benzo(k)fluoranthene	0.0500	0.0434	86.8	46.0-120	
Benzo(g,h,i)perylene	0.0500	0.0481	96.2	48.0-121	
Benzo(a)pyrene	0.0500	0.0479	95.8	47.0-120	
Biphenyl	0.0500	0.0404	80.8	38.0-120	
Bis(2-chlorethoxy)methane	0.0500	0.0345	69.0	33.0-120	
Bis(2-chloroethyl)ether	0.0500	0.0340	68.0	23.0-120	
2,2-Oxybis(1-Chloropropane)	0.0500	0.0393	78.6	28.0-120	
4-Bromophenyl-phenylether	0.0500	0.0453	90.6	45.0-120	
Caprolactam	0.0500	0.0129	25.8	10.0-120	
Carbazole	0.0500	0.0459	91.8	51.0-122	
4-Chloroaniline	0.0500	0.0334	66.8	25.0-120	
2-Chloronaphthalene	0.0500	0.0388	77.6	37.0-120	
4-Chlorophenyl-phenylether	0.0500	0.0438	87.6	44.0-120	
Chrysene	0.0500	0.0435	87.0	48.0-120	
Dibenz(a,h)anthracene	0.0500	0.0506	101	47.0-120	
Dibenzofuran	0.0500	0.0407	81.4	44.0-120	
3,3-Dichlorobenzidine	0.100	0.102	102	44.0-120	
2,4-Dinitrotoluene	0.0500	0.0491	98.2	49.0-124	
2,6-Dinitrotoluene	0.0500	0.0443	88.6	46.0-120	
Fluoranthene	0.0500	0.0465	93.0	51.0-120	
Fluorene	0.0500	0.0417	83.4	47.0-120	
Hexachlorobenzene	0.0500	0.0432	86.4	44.0-120	
Hexachloro-1,3-butadiene	0.0500	0.0415	83.0	19.0-120	
Hexachlorocyclopentadiene	0.0500	0.0379	75.8	15.0-120	
Hexachloroethane	0.0500	0.0404	80.8	15.0-120	
Indeno(1,2,3-cd)pyrene	0.0500	0.0498	99.6	49.0-122	
Isophorone	0.0500	0.0345	69.0	36.0-120	
1-Methylnaphthalene	0.0500	0.0333	66.6	33.0-120	
2-Methylnaphthalene	0.0500	0.0325	65.0	33.0-120	
Naphthalene	0.0500	0.0351	70.2	27.0-120	
2-Nitroaniline	0.0500	0.0429	85.8	43.0-120	
3-Nitroaniline	0.0500	0.0429	85.8	38.0-120	

Laboratory Control Sample (LCS)

(LCS) R3541823-1 06/22/20 18:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Nitroaniline	0.0500	0.0477	95.4	18.0-160	
Nitrobenzene	0.0500	0.0375	75.0	27.0-120	
n-Nitrosodiphenylamine	0.0500	0.0411	82.2	47.0-120	
n-Nitrosodi-n-propylamine	0.0500	0.0384	76.8	31.0-120	
Phenanthrene	0.0500	0.0409	81.8	46.0-120	
Benzylbutyl phthalate	0.0500	0.0452	90.4	43.0-121	
Bis(2-ethylhexyl)phthalate	0.0500	0.0436	87.2	43.0-122	
Di-n-butyl phthalate	0.0500	0.0460	92.0	49.0-121	
Diethyl phthalate	0.0500	0.0432	86.4	48.0-122	
Dimethyl phthalate	0.0500	0.0437	87.4	48.0-120	
Di-n-octyl phthalate	0.0500	0.0448	89.6	42.0-125	
Pyrene	0.0500	0.0433	86.6	47.0-120	
1,2,4-Trichlorobenzene	0.0500	0.0368	73.6	24.0-120	
4-Chloro-3-methylphenol	0.0500	0.0360	72.0	40.0-120	
2-Chlorophenol	0.0500	0.0367	73.4	25.0-120	
2-Methylphenol	0.0500	0.0326	65.2	28.0-120	
3&4-Methyl Phenol	0.0500	0.0320	64.0	31.0-120	
2,4-Dichlorophenol	0.0500	0.0374	74.8	36.0-120	
2,4-Dimethylphenol	0.0500	0.0371	74.2	33.0-120	
4,6-Dinitro-2-methylphenol	0.0500	0.0492	98.4	38.0-138	
2,4-Dinitrophenol	0.0500	0.0499	99.8	10.0-120	
2-Nitrophenol	0.0500	0.0374	74.8	31.0-120	
4-Nitrophenol	0.0500	0.0156	31.2	10.0-120	
Pentachlorophenol	0.0500	0.0423	84.6	23.0-120	
Phenol	0.0500	0.0132	26.4	10.0-120	
2,4,5-Trichlorophenol	0.0500	0.0469	93.8	44.0-120	
2,4,6-Trichlorophenol	0.0500	0.0420	84.0	42.0-120	
(S) Nitrobenzene-d5			*65.9*	*10.0-127*	
(S) 2-Fluorobiphenyl			*79.7*	*10.0-130*	
(S) p-Terphenyl-d14			*87.5*	*10.0-128*	
(S) Phenol-d5			*25.6*	*10.0-120*	
(S) 2-Fluorophenol			*48.9*	*10.0-120*	
(S) 2,4,6-Tribromophenol			*99.0*	*10.0-155*	

L1231323-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231323-03 06/23/20 00:13 • (MS) R3541823-3 06/23/20 00:34 • (MSD) R3541823-4 06/23/20 00:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acenaphthene	0.0500	U	0.0405	0.0408	81.0	81.6	1	28.0-120			0.738	25
Acenaphthylene	0.0500	U	0.0413	0.0419	82.6	83.8	1	31.0-121			1.44	25
Acetophenone	0.0500	U	0.0477	0.0446	95.4	89.2	1	20.0-120			6.72	35
Anthracene	0.0500	U	0.0441	0.0419	88.2	83.8	1	36.0-120			5.12	23
Atrazine	0.0500	U	0.0500	0.0504	100	101	1	39.0-130			0.797	23
Benzaldehyde	0.0500	U	0.129	0.119	258	238	1	10.0-160	J5	J5	8.06	40
Benzo(a)anthracene	0.0500	U	0.0456	0.0442	91.2	88.4	1	39.0-120			3.12	23
Benzo(b)fluoranthene	0.0500	U	0.0430	0.0419	86.0	83.8	1	37.0-120			2.59	23
Benzo(k)fluoranthene	0.0500	U	0.0413	0.0401	82.6	80.2	1	37.0-120			2.95	26
Benzo(g,h,i)perylene	0.0500	U	0.0432	0.0429	86.4	85.8	1	37.0-123			0.697	25
Benzo(a)pyrene	0.0500	U	0.0457	0.0444	91.4	88.8	1	37.0-120			2.89	24
Biphenyl	0.0500	U	0.0412	0.0413	82.4	82.6	1	29.0-120			0.242	33
Bis(2-chlorethoxy)methane	0.0500	U	0.0363	0.0353	72.6	70.6	1	17.0-120			2.79	31
Bis(2-chloroethyl)ether	0.0500	U	0.0416	0.0385	83.2	77.0	1	14.0-120			7.74	33
2,2-Oxybis(1-Chloropropane)	0.0500	U	0.0408	0.0391	81.6	78.2	1	18.0-120			4.26	34
4-Bromophenyl-phenylether	0.0500	U	0.0462	0.0457	92.4	91.4	1	37.0-120			1.09	24
Caprolactam	0.0500	U	0.0150	0.0144	30.0	28.8	1	10.0-120			4.08	40
Carbazole	0.0500	U	0.0473	0.0458	94.6	91.6	1	38.0-127			3.22	21
4-Chloroaniline	0.0500	U	0.0342	0.0337	68.4	67.4	1	10.0-120			1.47	31
2-Chloronaphthalene	0.0500	U	0.0394	0.0399	78.8	79.8	1	29.0-120			1.26	28
4-Chlorophenyl-phenylether	0.0500	U	0.0446	0.0442	89.2	88.4	1	36.0-120			0.901	23
Chrysene	0.0500	U	0.0419	0.0409	83.8	81.8	1	38.0-120			2.42	23
Dibenz(a,h)anthracene	0.0500	U	0.0459	0.0447	91.8	89.4	1	36.0-121			2.65	24
Dibenzofuran	0.0500	U	0.0417	0.0414	83.4	82.8	1	32.0-120			0.722	26
3,3-Dichlorobenzidine	0.100	U	0.0989	0.0972	98.9	97.2	1	10.0-134			1.73	30
2,4-Dinitrotoluene	0.0500	U	0.0507	0.0498	101	99.6	1	39.0-125			1.79	25
2,6-Dinitrotoluene	0.0500	U	0.0465	0.0462	93.0	92.4	1	36.0-120			0.647	27
Fluoranthene	0.0500	U	0.0470	0.0452	94.0	90.4	1	41.0-121			3.90	22
Fluorene	0.0500	U	0.0423	0.0431	84.6	86.2	1	37.0-120			1.87	24
Hexachlorobenzene	0.0500	U	0.0436	0.0426	87.2	85.2	1	35.0-122			2.32	24
Hexachloro-1,3-butadiene	0.0500	U	0.0421	0.0411	84.2	82.2	1	12.0-120			2.40	34
Hexachlorocyclopentadiene	0.0500	U	0.0404	0.0401	80.8	80.2	1	10.0-120			0.745	33
Hexachloroethane	0.0500	U	0.0411	0.0389	82.2	77.8	1	10.0-120			5.50	40
Indeno(1,2,3-cd)pyrene	0.0500	U	0.0459	0.0448	91.8	89.6	1	38.0-125			2.43	24
Isophorone	0.0500	U	0.0371	0.0368	74.2	73.6	1	21.0-120			0.812	27
1-Methylnaphthalene	0.0500	U	0.0337	0.0333	67.4	66.6	1	11.0-120			1.19	27
2-Methylnaphthalene	0.0500	U	0.0331	0.0327	66.2	65.4	1	17.0-120			1.22	28
Naphthalene	0.0500	U	0.0362	0.0353	72.4	70.6	1	10.0-120			2.52	31
2-Nitroaniline	0.0500	U	0.0455	0.0447	91.0	89.4	1	33.0-120			1.77	27
3-Nitroaniline	0.0500	U	0.0438	0.0440	87.6	88.0	1	20.0-120			0.456	27

L1231323-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231323-03 06/23/20 00:13 • (MS) R3541823-3 06/23/20 00:34 • (MSD) R3541823-4 06/23/20 00:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
4-Nitroaniline	0.0500	U	0.0506	0.0499	101	99.8	1	10.0-160			1.39	26
Nitrobenzene	0.0500	U	0.0399	0.0387	79.8	77.4	1	12.0-120			3.05	30
n-Nitrosodiphenylamine	0.0500	U	0.0434	0.0416	86.8	83.2	1	37.0-120			4.24	24
n-Nitrosodi-n-propylamine	0.0500	U	0.0440	0.0418	88.0	83.6	1	16.0-120			5.13	30
Phenanthrene	0.0500	U	0.0418	0.0407	83.6	81.4	1	33.0-120			2.67	22
Benzylbutyl phthalate	0.0500	U	0.0462	0.0458	92.4	91.6	1	34.0-126			0.870	24
Bis(2-ethylhexyl)phthalate	0.0500	U	0.0408	0.0401	81.6	80.2	1	33.0-126			1.73	25
Di-n-butyl phthalate	0.0500	U	0.0469	0.0447	93.8	89.4	1	35.0-128			4.80	23
Diethyl phthalate	0.0500	U	0.0440	0.0434	88.0	86.8	1	39.0-125			1.37	24
Dimethyl phthalate	0.0500	U	0.0438	0.0434	87.6	86.8	1	37.0-120			0.917	24
Di-n-octyl phthalate	0.0500	U	0.0417	0.0416	83.4	83.2	1	25.0-135			0.240	26
Pyrene	0.0500	U	0.0443	0.0442	88.6	88.4	1	39.0-120			0.226	22
1,2,4-Trichlorobenzene	0.0500	U	0.0365	0.0355	73.0	71.0	1	15.0-120			2.78	31
4-Chloro-3-methylphenol	0.0500	U	0.0367	0.0363	73.4	72.6	1	26.0-120			1.10	27
2-Chlorophenol	0.0500	U	0.0378	0.0357	75.6	71.4	1	18.0-120			5.71	34
2-Methylphenol	0.0500	U	0.0341	0.0328	68.2	65.6	1	10.0-120			3.89	30
3&4-Methyl Phenol	0.0500	U	0.0342	0.0334	68.4	66.8	1	10.0-120			2.37	36
2,4-Dichlorophenol	0.0500	U	0.0385	0.0383	77.0	76.6	1	19.0-120			0.521	27
2,4-Dimethylphenol	0.0500	U	0.0385	0.0396	77.0	79.2	1	15.0-120			2.82	28
4,6-Dinitro-2-methylphenol	0.0500	U	0.0510	0.0494	102	98.8	1	10.0-144			3.19	39
2,4-Dinitrophenol	0.0500	U	0.0534	0.0524	107	105	1	10.0-120			1.89	40
2-Nitrophenol	0.0500	U	0.0389	0.0377	77.8	75.4	1	20.0-120			3.13	30
4-Nitrophenol	0.0500	U	0.0176	0.0184	35.2	36.8	1	10.0-120			4.44	40
Pentachlorophenol	0.0500	U	0.0487	0.0475	97.4	95.0	1	10.0-128			2.49	37
Phenol	0.0500	U	0.0148	0.0140	29.6	28.0	1	10.0-120			5.56	40
2,4,5-Trichlorophenol	0.0500	U	0.0487	0.0487	97.4	97.4	1	33.0-120			0.000	31
2,4,6-Trichlorophenol	0.0500	U	0.0443	0.0437	88.6	87.4	1	26.0-120			1.36	31
(S) Nitrobenzene-d5					*69.5*	*65.6*		*10.0-127*				
(S) 2-Fluorobiphenyl					*82.5*	*81.4*		*10.0-130*				
(S) p-Terphenyl-d14					*85.7*	*84.5*		*10.0-128*				
(S) Phenol-d5					*29.1*	*27.5*		*10.0-120*				
(S) 2-Fluorophenol					*51.0*	*48.8*		*10.0-120*				
(S) 2,4,6-Tribromophenol					*109*	*100*		*10.0-155*				

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Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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DAY 2

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**
Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**
City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:
Client Project # **330538.0000.0000**
Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**
Site/Facility ID # **REST (Navajo - Artesia)**
P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed
Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 13

Pace Analytical* (National Center for Testing & Innovation)
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123128
Table 1091
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~RW-#15C~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-48~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-130	Grab	GW		6/17/20	1410	10	X	X	X	X	X	X						01
~~KWB-4~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-19~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-52	Grab	GW		6/17/20	1320	11	X	X	X		X	X	X	X				02
MW-109	Grab	GW		6/17/20	1235	10	X	X	X	X	X	X						03
MW-110	Grab	GW		6/17/20	1150	10	X	X	X	X	X	X						04
RW-12R	Grab	GW		6/17/20	1535	8	X	X		X	X	X						05
~~RW-113~~ MW-113	Grab	GW		6/17/20	1510	10	X	X	X	X	X	X						06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Lab - print RW-113 should have been "MW-113"
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCl / MeoH TBR)	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 5.1 4 °C Bottles Received: 345	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845	Hold: Condition: NCF / OK

CM 1/30/21

Page 1295 of 2498

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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 13

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123128

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~KWB-8~~ (LNAPL)	Grab	GW				9	X	X			X	X	X	X				
~~RW-22~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-20A~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-20B~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-13R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~RW-14R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-133 (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-134	Grab	GW		6/17/20	1340	10	X	X	X	X	X	X						07
RA-4798	Grab	GW		6/17/20	1605	5	X				X	X						08
RA-4196	Grab	GW		6/17/20	1550	5	X				X	X						09

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.7 °C Bottles Received: 345
				5-1-4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: CM 1/30/21

Condition: OK

Page 1296 of 2498

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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 13

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123128
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
RA-3156	Grab	GW		6/17/20	1520	5	X				X	X						10
RA-313	Grab	GW		6/17/20	855	5	X				X	X						11
KWB-7	Grab	GW		6/16/20	1330	9	X	X			X	X	X	X				
MW-135	Grab	GW		6/17/20	1420	10	X	X	X	X	X	X						12
KWB-11A	Grab	GW		6/16/20	1425	11	X	X	X		X	X	X	X				
KWB-11B	Grab	GW		6/16/20	1515	11	X	X	X		X	X	X	X				
~~MW-115~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-114~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-117~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-118~~	Grab	SS				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct Bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1 °C Bottles Received: 345
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: CM 1/30/21 Condition: OK

Page 1297 of 2498

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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 13

Pace Analytical® National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 127128

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-119~~	Grab	GW				10	X	X	X	X	X	X						
MW-136	Grab	GW		6/17/20	915	11	X	X	X		X	X	X	X				13
~~MW-126A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-126B~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-127~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-129~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-#18A~~	Grab	GW				6	X			X	X	X						
KWB-1A	Grab	GW		6/17/20	1000	9	X	X			X	X	X	X				14
~~KWB-10R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-131~~	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No HCl / MeoH TBR

Temp: 4.7 °C Bottles Received: 345
.5-1=.4

Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: CM 1/30/21

Condition: NCF / OK

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P.O. # **150726**

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Immediately Packed on Ice N ___ Y ✓

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___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 5 of 13

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
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Fax: 615-758-5859

L# 123129

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~KWB-5~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
MW-111	Grab	GW		6/17/20	1045	10	X	X	X	X	X	X						15
~~KWB-6~~ (LNAPL)	Grab	GW				11	X	X		X	X	X				X		
~~MW-112~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-132~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-57~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-#11-0~~ (DRY)	Grab	GW				8	X	X		X	X	X						
~~KWB-12A~~	Grab	GW				11	X	X	X		X	X	X	X				
~~KWB-12B~~	Grab	GW				11	X	X	X		X	X	X	X				
~~KWB-2R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.7 °C Bottles Received: 345
.5-1.4

Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: OK

CM 1/30/21

Released to Imaging: 11/21/2023 10:16:55 AM
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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 6 of 13

Pace Analytical® National Center for Testing & Innovation
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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 173178
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-58~~ (LNAPL)	Grab	GW				9	X	X			X	X	X	X				
~~KWB-T3~~	Grab	GW				9	X	X			X	X	X	X				
~~MW-103~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-104~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-64~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-65~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-5R~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-102~~	Grab	GW				10	X	X	X	X	X	X						
RW-4	Grab	GW		6/17/20	915	8	X	X		X	X	X						16
~~RW-6~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (HCL / MeoH) TBR
Temp: 4.2 °C Bottles Received: 345
Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: CF / OK

CM 1/30/21

Page 1300 of 2498

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Austin, TX 78752

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Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 7 of 13

Pace Analytical*
National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 173127
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-99	Grab	GW		6/17/20	1250	10	X	X	X	X	X	X						17
MW-66	Grab	GW		6/17/20	1245	11	X	X	X		X	X	X	X				18
MW-28	Grab	GW		6/17/20	1340	11	X	X	X		X	X	X	X				19
MW-59	Grab	GW		6/17/20	1015	10	X	X	X	X	X	X						20
MW-60	Grab	GW		6/17/20	1145	11	X	X	X		X	X	X	X				21
~~MW-107~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-128~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-125~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-116~~	Grab	GW				10	X	X	X	X	X	X						
~~UG-3R~~	Grab	GW				11	X	X	X		X	X	X	X				

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes/No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1 °C Bottles Received: 345	
				1.5, 1=4	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845	Hold: CM 1/30/21 Condition: NCF / OK

Page 1301 of 2498

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Billing information:
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apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 8 of 13

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National Center for Testing & Innovation

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 142112

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~UG-4~~	Grab	GW				11	X	X	X		X	X	X	X				
~~UG-1~~	Grab	GW				11	X	X	X		X	X	X	X				
~~UG-2~~	Grab	GW				11	X	X	X		X	X	X	X				
~~MW-101~~	Grab	GW				10	X	X	X	X	X	X						
MW-105	Grab	GW		6/17/20	925	10	X	X	X	X	X	X						22
~~RW-2~~ (LNAPL)	Grab	GW				12	X	X	X	X	X	X			X			
MW-61	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						23
MW-62	Grab	GW		6/17/20	1220	10	X	X	X	X	X	X						24
MW-93	Grab	GW		6/17/20	1125	12	X	X	X	X	X	X			X			25
MW-43	Grab	GW		6/17/20	1425	11	X	X	X		X	X	X	X				26

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.5-1.2-1.4 °C Bottles Received: 345	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845	Hold: CM 1/30/21 Condition: CP / OK

Page 1302 of 2498

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apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 9 of 13

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Fax: 615-758-5859

L# 123177

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-137~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X			
~~MW-138~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X			
MW-23	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X						27
~~MW-39~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-98~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-10~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-40~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-41~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-9~~	Grab	GW				10	X	X	X	X	X	X						
MW-42	Grab	GW		6/17/20	1420	10	X	X	X	X	X	X						28

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 4.3 °C Bottles Received: 345
5-1=4

Date: 6/18/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

CM 1/30/21

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Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y V

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 10 of 13

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1123/m
Table #
Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-29~~	Grab	GW				10	X	X	X	X	X	X						
~~RW-#16B~~	Grab	GW				8	X	X		X	X	X						
~~MW-106~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-139~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-50~~	Grab	GW				8	X	X		X	X	X						
~~MW-97~~ (LNAPL)	Grab	GW				12	X	X	X	X	X	X			X			
~~MW-92~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-1~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~MW-91~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-90~~	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes / No) HCL / MeoH	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700		TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3 °C Bottles Received: 395 (.5-1=4)	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845	Hold: CM 1/30/21 Condition: NCF / OK

Page 1304 of 2498

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Billing Information:
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apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 12 of 13

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 112311A

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
DUP-REST-04	Grab	GW		6/17/20	1000	11	X	X	X		X	X	X	X				34
~~DUP-REST-05~~	Grab	GW				11	X	X	X		X	X	X	X				
EB-REST-01	Grab	GW		6/17/20	1530	10	X	X	X	X	X	X						35
~~EB-REST-02~~	Grab	GW				10	X	X	X	X	X	X						
EB-REST-03	Grab	GW		6/17/20	1400	10	X	X	X	X	X	X						36
EB-REST-04	Grab	GW		6/17/20	1205	11	X	X	X		X	X	X	X				37
~~EB-REST-05~~	Grab	GW				11	X	X	X		X	X	X	X				
TRIP BLANK-REST-01	Grab	GW				1	X											
~~TRIP BLANK-REST-02~~	Grab	GW				1	X											
~~TRIP BLANK-REST-03~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (HCL / MeoH) TBR

Temp: 4.7 °C Bottles Received: 345

Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: (CF) OK

CM 1/30/21

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

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505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
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apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 11 of 13

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 172711

Table #

Acctnum: TRCATX
Template: T133463
Prelogin: P763304
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-96~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-94~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
~~RW-8~~ (LNAPL)	Grab	GW				8	X	X		X	X	X						
~~MW-67~~ (LNAPL)	Grab	GW				13	X	X	X		X	X	X	X	X			
~~MW-95~~	Grab	GW				10	X	X	X	X	X	X						
RW-7	Grab	GW		6/17/20	1220	10	X	X	X	X	X	X						29
RW-#17A	Grab	GW		6/17/20	1510	10	X	X	X	X	X	X						30
DUP-REST-01	Grab	GW		6/17/20	1200	10	X	X	X	X	X	X						31
~~DUP-REST-02~~	Grab	GW		~~6/17/20~~	~~1100~~ SH	10	X	X	X	X	X	X						32
DUP-REST-03	Grab	GW		6/17/20	1100	10	X	X	X	X	X	X						33

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 4.7°C
S.E.4

Bottles Received: 345

Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

CM 1/30/21

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Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Chain of Custody Page 13 of 13

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National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
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Fax: 615-758-5859

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **REST Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-REST**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **REST (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

L #

Table #

Acctnum: **TRCATX**
Template: **T133463**
Prelogin: **P763304**
TSR: **526**
PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~Trip Blank-REST-04~~	Grab	GW				1	X											
~~Trip Blank-REST-05~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.7 °C Bottles Received: 345
				.5-1=.4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: CM 1/30/21

Condition: CF / OK

Released to Imaging: 11/21/2023 10:16:55 AM

FedEx Tracking #:	Corresponding temp
1663 5756 9467	4.1 - 0.1 = 4.0 HM A7
1676 2755 8222	0.9 - .1 = 0.8
1663 5756 9732	0.4 - .1 = 0.3
9489	1.3 + .1 = 1.4 MP A3
1676 2755 8233	0.5 - .1 = 0.4 HM A7
1663 5756 9835	1.1 + .1 = 1.2 MP A3
9412	1.9 - .1 = 1.8 HM A7
9490	1.1 - .1 = 1.0
1676 2755 8211	1.2 - .1 = 1.1
1203 5785 6051	1.5 - .1 = 1.4
1663 5756 1054	1.5 - .1 = 1.4
1087	1.7 - .1 = 1.6
1043	0.8 - .1 = 0.7
1065	0.3 - .1 = 0.2
1076	1.0 - .1 = 0.9
9478	3.7 - .1 = 3.6
9721	0.3 - .1 = 0.2
9798	1.2 - .1 = 1.1
4492 6230 1294	1.5 - .1 = 1.4
1203 5785 6040	1.1 - .1 = 1.0
1663 5756 9423	1.5 - .1 = 1.4
No Tracking #	1.6 - .1 = 1.5 KI A7

Received by OCD: 6/23/2021 4:05:29 PM

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

July 02, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1231153
Samples Received:	06/19/2020
Project Number:	330538.0000.0000
Description:	NCL Spring 2020
Site:	NCL (NAVAJO-ARTESIA)
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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MW-45 L1231153-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:20
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:36	06/30/20 18:36	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1499866	1	06/27/20 14:03	06/27/20 15:56	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	100	06/26/20 16:59	06/26/20 16:59	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	5	06/26/20 16:41	06/26/20 16:41	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 22:28	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:34	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498739	1	06/25/20 12:13	06/25/20 17:33	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:37	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:28	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 17:54	06/23/20 17:54	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497082	1	06/23/20 16:01	06/29/20 03:29	CAG	Mt. Juliet, TN

NCL-34A L1231153-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	100	06/30/20 18:39	06/30/20 18:39	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 17:17	06/26/20 17:17	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	10	06/26/20 17:34	06/26/20 17:34	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:41	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	20	06/23/20 18:12	06/23/20 18:12	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 03:16	JDG	Mt. Juliet, TN

NCL-33 L1231153-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:55
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:40	06/30/20 18:40	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 17:52	06/26/20 17:52	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	100	06/26/20 18:10	06/26/20 18:10	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498726	1	06/25/20 22:09	06/26/20 15:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 18:32	06/23/20 18:32	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 03:59	KME	Mt. Juliet, TN

NCL-44 L1231153-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:35
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498147	1	06/24/20 19:17	06/24/20 23:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:41	06/30/20 18:41	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 18:28	06/26/20 18:28	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	50	06/26/20 18:46	06/26/20 18:46	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 16:08	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/28/20 23:56	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 18:51	06/23/20 18:51	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 04:24	KME	Mt. Juliet, TN

NCL-32 L1231153-05 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:50
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	5	06/30/20 18:43	06/30/20 18:43	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 19:40	06/26/20 19:40	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	50	06/26/20 19:58	06/26/20 19:58	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 16:32	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/29/20 00:00	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 19:10	06/23/20 19:10	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 10:37	JDG	Mt. Juliet, TN

MW-108 L1231153-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	100	06/30/20 18:44	06/30/20 18:44	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 20:16	06/26/20 20:16	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	5	06/27/20 13:23	06/27/20 13:23	MCG	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 16:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/29/20 00:03	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	5	06/23/20 19:29	06/23/20 19:29	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 04:08	JDG	Mt. Juliet, TN

NCL-31 L1231153-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:05
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499267	1	06/30/20 18:45	06/30/20 18:45	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 20:51	06/26/20 20:51	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	50	06/26/20 21:09	06/26/20 21:09	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 16:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/29/20 00:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 19:48	06/23/20 19:48	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 01:24	KME	Mt. Juliet, TN

MW-18 L1231153-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	5	06/29/20 21:10	06/29/20 21:10	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1499866	1	06/27/20 14:03	06/27/20 15:57	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 21:27	06/26/20 21:27	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	50	06/26/20 22:21	06/26/20 22:21	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1496610	1	06/23/20 10:45	06/23/20 22:30	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:10	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:37	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498739	1	06/25/20 12:13	06/25/20 17:37	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 16:58	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/29/20 00:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 20:07	06/23/20 20:07	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 05:00	JDG	Mt. Juliet, TN

SAMPLE SUMMARY

EB-NCL-01 L1231153-09 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/17/20 11:00	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 23:05	06/29/20 23:05	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498103	1	06/26/20 23:15	06/26/20 23:15	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:01	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498750	1	06/26/20 08:21	06/29/20 00:26	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 20:26	06/23/20 20:26	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 10:11	JDG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4480		28.2	100	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:36	WG1499267

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	0.00225	J	0.00180	0.00500	1	06/27/2020 15:56	WG1499866

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	413		1.90	5.00	5	06/26/2020 16:41	WG1498103
Fluoride	1.54		0.320	0.750	5	06/26/2020 16:41	WG1498103
Sulfate	2490		59.4	500	100	06/26/2020 16:59	WG1498103

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/23/2020 22:28	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:07	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.573		0.0254	0.200	1	06/25/2020 17:33	WG1498739
Boron,Dissolved	0.566		0.0254	0.200	1	06/26/2020 08:34	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00395		0.000735	0.00200	1	06/28/2020 23:28	WG1498750
Arsenic,Dissolved	0.00386		0.000735	0.00200	1	06/26/2020 15:37	WG1498726
Barium	0.0157	J	0.00778	0.0200	1	06/28/2020 23:28	WG1498750
Barium,Dissolved	0.0132	J	0.00778	0.0200	1	06/26/2020 15:37	WG1498726
Cadmium	U		0.000478	0.00100	1	06/28/2020 23:28	WG1498750
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 15:37	WG1498726
Calcium	574		0.480	1.00	1	06/28/2020 23:28	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:28	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:37	WG1498726
Cobalt	U		0.000477	0.00200	1	06/28/2020 23:28	WG1498750
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 15:37	WG1498726
Iron	1.02		0.0489	0.100	1	06/28/2020 23:28	WG1498750
Iron,Dissolved	0.967		0.0489	0.100	1	06/26/2020 15:37	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:28	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:37	WG1498726
Manganese	0.481		0.00132	0.00500	1	06/28/2020 23:28	WG1498750
Manganese,Dissolved	0.502		0.00132	0.00500	1	06/26/2020 15:37	WG1498726
Nickel	0.00525		0.000952	0.00200	1	06/28/2020 23:28	WG1498750
Nickel,Dissolved	0.00643		0.000952	0.00200	1	06/26/2020 15:37	WG1498726

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Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	4.80		0.534	2.00	1	06/28/2020 23:28	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:28	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:37	WG1498726
Sodium	339		0.630	2.00	1	06/28/2020 23:28	WG1498750
Uranium	U		0.00754	0.0200	1	06/28/2020 23:28	WG1498750
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 15:37	WG1498726
Vanadium	U		0.000986	0.00500	1	06/28/2020 23:28	WG1498750
Vanadium,Dissolved	U		0.000986	0.00500	1	06/26/2020 15:37	WG1498726

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 17:54	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 17:54	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 17:54	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 17:54	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 17:54	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 17:54	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 17:54	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 17:54	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 17:54	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 17:54	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 17:54	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 17:54	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 17:54	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 17:54	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 17:54	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 17:54	WG1497262
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 17:54	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 17:54	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 17:54	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 17:54	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 17:54	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 17:54	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 17:54	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 17:54	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 17:54	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 17:54	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 17:54	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 17:54	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 17:54	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 17:54	WG1497262
Methyl tert-butyl ether	0.00634		0.000101	0.00100	1	06/23/2020 17:54	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 17:54	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 17:54	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 17:54	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 17:54	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 17:54	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 17:54	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 17:54	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 17:54	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 17:54	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 17:54	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 17:54	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 17:54	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 17:54	WG1497262

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	U		0.000174	0.00100	1	06/23/2020 17:54	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 17:54	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 17:54	WG1497262
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 17:54*	WG1497262
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/23/2020 17:54*	WG1497262
(S) 1,2-Dichloroethane-d4	*84.7*			*70.0-130*		*06/23/2020 17:54*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.739		0.0247	0.100	1	06/29/2020 03:29	WG1497082
(S) o-Terphenyl	*70.5*			*31.0-160*		*06/29/2020 03:29*	WG1497082

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1680		7.05	25.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		5.00	10.0	100	06/30/2020 18:39	WG1499267

Sample Narrative:

L1231153-02 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	260		3.79	10.0	10	06/26/2020 17:34	WG1498103
Fluoride	1.31		0.0640	0.150	1	06/26/2020 17:17	WG1498103
Sulfate	234		5.94	50.0	10	06/26/2020 17:34	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000811	J	0.000735	0.00200	1	06/28/2020 23:50	WG1498750
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 15:41	WG1498726
Barium	0.242		0.00778	0.0200	1	06/28/2020 23:50	WG1498750
Barium,Dissolved	0.229		0.00778	0.0200	1	06/26/2020 15:41	WG1498726
Calcium	283		0.480	1.00	1	06/28/2020 23:50	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:50	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:41	WG1498726
Iron	U		0.0489	0.100	1	06/28/2020 23:50	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 15:41	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:50	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:41	WG1498726
Manganese	0.0416		0.00132	0.00500	1	06/28/2020 23:50	WG1498750
Manganese,Dissolved	0.0415		0.00132	0.00500	1	06/26/2020 15:41	WG1498726
Potassium	1.13	J	0.534	2.00	1	06/28/2020 23:50	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:50	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 15:41	WG1498726
Sodium	104		0.630	2.00	1	06/28/2020 23:50	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/23/2020 18:12	WG1497262
Benzene	1.10		0.00188	0.0200	20	06/23/2020 18:12	WG1497262
Bromodichloromethane	U		0.00272	0.0200	20	06/23/2020 18:12	WG1497262
Bromoform	U		0.00258	0.0200	20	06/23/2020 18:12	WG1497262
Bromomethane	U		0.0121	0.100	20	06/23/2020 18:12	WG1497262
n-Butylbenzene	0.00420	J	0.00314	0.0200	20	06/23/2020 18:12	WG1497262
sec-Butylbenzene	0.0164	J	0.00250	0.0200	20	06/23/2020 18:12	WG1497262
Carbon disulfide	U		0.00192	0.0200	20	06/23/2020 18:12	WG1497262
Carbon tetrachloride	U		0.00256	0.0200	20	06/23/2020 18:12	WG1497262
Chlorobenzene	U		0.00232	0.0200	20	06/23/2020 18:12	WG1497262
Chlorodibromomethane	U		0.00280	0.0200	20	06/23/2020 18:12	WG1497262
Chloroethane	U		0.00384	0.100	20	06/23/2020 18:12	WG1497262
Chloroform	U		0.00222	0.100	20	06/23/2020 18:12	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloromethane	U		0.0192	0.0500	20	06/23/2020 18:12	WG1497262
1,2-Dibromoethane	U		0.00252	0.0200	20	06/23/2020 18:12	WG1497262
1,1-Dichloroethane	U		0.00200	0.0200	20	06/23/2020 18:12	WG1497262
1,2-Dichloroethane	U		0.00164	0.0200	20	06/23/2020 18:12	WG1497262
1,1-Dichloroethene	U		0.00376	0.0200	20	06/23/2020 18:12	WG1497262
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/23/2020 18:12	WG1497262
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/23/2020 18:12	WG1497262
1,2-Dichloropropane	U		0.00298	0.0200	20	06/23/2020 18:12	WG1497262
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/23/2020 18:12	WG1497262
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/23/2020 18:12	WG1497262
Ethylbenzene	0.00476	J	0.00274	0.0200	20	06/23/2020 18:12	WG1497262
Isopropylbenzene	0.0844		0.00210	0.0200	20	06/23/2020 18:12	WG1497262
p-Isopropyltoluene	U		0.00240	0.0200	20	06/23/2020 18:12	WG1497262
2-Butanone (MEK)	U		0.0238	0.200	20	06/23/2020 18:12	WG1497262
2-Hexanone	U		0.0157	0.200	20	06/23/2020 18:12	WG1497262
Methylene Chloride	U		0.00860	0.100	20	06/23/2020 18:12	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/23/2020 18:12	WG1497262
Methyl tert-butyl ether	U		0.00202	0.0200	20	06/23/2020 18:12	WG1497262
Naphthalene	U	J4	0.0200	0.100	20	06/23/2020 18:12	WG1497262
n-Propylbenzene	0.0686		0.00199	0.0200	20	06/23/2020 18:12	WG1497262
Styrene	U		0.00236	0.0200	20	06/23/2020 18:12	WG1497262
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/23/2020 18:12	WG1497262
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/23/2020 18:12	WG1497262
Tetrachloroethene	U		0.00600	0.0200	20	06/23/2020 18:12	WG1497262
Toluene	U		0.00556	0.0200	20	06/23/2020 18:12	WG1497262
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/23/2020 18:12	WG1497262
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/23/2020 18:12	WG1497262
Trichloroethene	U		0.00380	0.0200	20	06/23/2020 18:12	WG1497262
1,2,4-Trimethylbenzene	0.0113	J	0.00644	0.0200	20	06/23/2020 18:12	WG1497262
1,3,5-Trimethylbenzene	0.00286	J	0.00208	0.0200	20	06/23/2020 18:12	WG1497262
Vinyl chloride	U		0.00468	0.0200	20	06/23/2020 18:12	WG1497262
o-Xylene	U		0.00348	0.0200	20	06/23/2020 18:12	WG1497262
m&p-Xylene	0.0335	J	0.00860	0.0400	20	06/23/2020 18:12	WG1497262
Xylenes, Total	0.0335	J	0.00348	0.0600	20	06/23/2020 18:12	WG1497262
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 18:12*	WG1497262
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 18:12*	WG1497262
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 18:12*	WG1497262

Sample Narrative:

L1231153-02 WG1497262: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.58		0.0247	0.100	1	06/26/2020 03:16	WG1497084
(S) o-Terphenyl	*121*			*31.0-160*		*06/26/2020 03:16*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3890		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0547	J	0.0500	0.100	1	06/30/2020 18:40	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	692		37.9	100	100	06/26/2020 18:10	WG1498103
Fluoride	2.44		0.0640	0.150	1	06/26/2020 17:52	WG1498103
Sulfate	1540		59.4	500	100	06/26/2020 18:10	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00452		0.000735	0.00200	1	06/28/2020 23:53	WG1498750
Arsenic,Dissolved	0.00369		0.000735	0.00200	1	06/26/2020 15:44	WG1498726
Barium	0.0289		0.00778	0.0200	1	06/28/2020 23:53	WG1498750
Barium,Dissolved	0.0263		0.00778	0.0200	1	06/26/2020 15:44	WG1498726
Calcium	714		0.480	1.00	1	06/28/2020 23:53	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:53	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 15:44	WG1498726
Iron	3.52		0.0489	0.100	1	06/28/2020 23:53	WG1498750
Iron,Dissolved	2.79		0.0489	0.100	1	06/26/2020 15:44	WG1498726
Lead	U		0.00249	0.00500	1	06/28/2020 23:53	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 15:44	WG1498726
Manganese	0.194		0.00132	0.00500	1	06/28/2020 23:53	WG1498750
Manganese,Dissolved	0.205		0.00132	0.00500	1	06/26/2020 15:44	WG1498726
Potassium	5.60		0.534	2.00	1	06/28/2020 23:53	WG1498750
Selenium	0.00130	J	0.000657	0.00200	1	06/28/2020 23:53	WG1498750
Selenium,Dissolved	0.00192	J	0.000657	0.00200	1	06/26/2020 15:44	WG1498726
Sodium	166		0.630	2.00	1	06/28/2020 23:53	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 18:32	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 18:32	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 18:32	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 18:32	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 18:32	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 18:32	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 18:32	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 18:32	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 18:32	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 18:32	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 18:32	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 18:32	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 18:32	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 18:32	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 18:32	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 18:32	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 18:32	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 18:32	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 18:32	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 18:32	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 18:32	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 18:32	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 18:32	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 18:32	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 18:32	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 18:32	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 18:32	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 18:32	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 18:32	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 18:32	WG1497262
Methyl tert-butyl ether	0.000208	J	0.000101	0.00100	1	06/23/2020 18:32	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 18:32	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 18:32	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 18:32	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 18:32	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 18:32	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 18:32	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 18:32	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 18:32	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 18:32	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 18:32	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 18:32	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 18:32	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 18:32	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 18:32	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 18:32	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 18:32	WG1497262
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 18:32*	WG1497262
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*06/23/2020 18:32*	WG1497262
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*06/23/2020 18:32*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.21		0.0247	0.100	1	06/27/2020 03:59	WG1497084
(S) o-Terphenyl	*116*			*31.0-160*		*06/27/2020 03:59*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2700		14.1	50.0	1	06/24/2020 23:15	WG1498147

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:41	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	141		19.0	50.0	50	06/26/2020 18:46	WG1498103
Fluoride	1.66		0.0640	0.150	1	06/26/2020 18:28	WG1498103
Sulfate	1290		29.7	250	50	06/26/2020 18:46	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0305		0.000735	0.00200	1	06/28/2020 23:56	WG1498750
Arsenic,Dissolved	0.0273		0.000735	0.00200	1	06/26/2020 16:08	WG1498727
Barium	0.0218		0.00778	0.0200	1	06/28/2020 23:56	WG1498750
Barium,Dissolved	0.0214		0.00778	0.0200	1	06/26/2020 16:08	WG1498727
Calcium	373		0.480	1.00	1	06/28/2020 23:56	WG1498750
Chromium	U		0.00149	0.00200	1	06/28/2020 23:56	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 16:08	WG1498727
Iron	1.09		0.0489	0.100	1	06/28/2020 23:56	WG1498750
Iron,Dissolved	0.787		0.0489	0.100	1	06/26/2020 16:08	WG1498727
Lead	U		0.00249	0.00500	1	06/28/2020 23:56	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 16:08	WG1498727
Manganese	0.842		0.00132	0.00500	1	06/28/2020 23:56	WG1498750
Manganese,Dissolved	0.905	V	0.00132	0.00500	1	06/26/2020 16:08	WG1498727
Potassium	2.15		0.534	2.00	1	06/28/2020 23:56	WG1498750
Selenium	U		0.000657	0.00200	1	06/28/2020 23:56	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 16:08	WG1498727
Sodium	135		0.630	2.00	1	06/28/2020 23:56	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 18:51	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 18:51	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 18:51	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 18:51	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 18:51	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 18:51	WG1497262
sec-Butylbenzene	0.000413	J	0.000125	0.00100	1	06/23/2020 18:51	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 18:51	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 18:51	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 18:51	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 18:51	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 18:51	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 18:51	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 18:51	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 18:51	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 18:51	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 18:51	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 18:51	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 18:51	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 18:51	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 18:51	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 18:51	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 18:51	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 18:51	WG1497262
Isopropylbenzene	0.00134		0.000105	0.00100	1	06/23/2020 18:51	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 18:51	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 18:51	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 18:51	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 18:51	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 18:51	WG1497262
Methyl tert-butyl ether	0.000383	J	0.000101	0.00100	1	06/23/2020 18:51	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 18:51	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 18:51	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 18:51	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 18:51	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 18:51	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 18:51	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 18:51	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 18:51	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 18:51	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 18:51	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 18:51	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 18:51	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 18:51	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 18:51	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 18:51	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 18:51	WG1497262
(S) Toluene-d8	*105*			*80.0-120*		*06/23/2020 18:51*	WG1497262
(S) 4-Bromofluorobenzene	*98.7*			*77.0-126*		*06/23/2020 18:51*	WG1497262
(S) 1,2-Dichloroethane-d4	*98.7*			*70.0-130*		*06/23/2020 18:51*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.52		0.0247	0.100	1	06/27/2020 04:24	WG1497084
(S) o-Terphenyl	*114*			*31.0-160*		*06/27/2020 04:24*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2940		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	6.45		0.250	0.500	5	06/30/2020 18:43	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	90.7		0.379	1.00	1	06/26/2020 19:40	WG1498103
Fluoride	1.36		0.0640	0.150	1	06/26/2020 19:40	WG1498103
Sulfate	1730		29.7	250	50	06/26/2020 19:58	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00203		0.000735	0.00200	1	06/29/2020 00:00	WG1498750
Arsenic,Dissolved	0.00233		0.000735	0.00200	1	06/26/2020 16:32	WG1498727
Barium	0.0165	J	0.00778	0.0200	1	06/29/2020 00:00	WG1498750
Barium,Dissolved	0.0169	J	0.00778	0.0200	1	06/26/2020 16:32	WG1498727
Calcium	472		0.480	1.00	1	06/29/2020 00:00	WG1498750
Chromium	U		0.00149	0.00200	1	06/29/2020 00:00	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 16:32	WG1498727
Iron	U		0.0489	0.100	1	06/29/2020 00:00	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 16:32	WG1498727
Lead	U		0.00249	0.00500	1	06/29/2020 00:00	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 16:32	WG1498727
Manganese	1.31		0.00132	0.00500	1	06/29/2020 00:00	WG1498750
Manganese,Dissolved	1.31		0.00132	0.00500	1	06/26/2020 16:32	WG1498727
Potassium	3.12		0.534	2.00	1	06/29/2020 00:00	WG1498750
Selenium	0.00321		0.000657	0.00200	1	06/29/2020 00:00	WG1498750
Selenium,Dissolved	0.00326		0.000657	0.00200	1	06/26/2020 16:32	WG1498727
Sodium	107		0.630	2.00	1	06/29/2020 00:00	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 19:10	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 19:10	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 19:10	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 19:10	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 19:10	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 19:10	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 19:10	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 19:10	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 19:10	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 19:10	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 19:10	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 19:10	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 19:10	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 19:10	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 19:10	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 19:10	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 19:10	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 19:10	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 19:10	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 19:10	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 19:10	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 19:10	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 19:10	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 19:10	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 19:10	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 19:10	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 19:10	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 19:10	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 19:10	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 19:10	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 19:10	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 19:10	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 19:10	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 19:10	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 19:10	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 19:10	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 19:10	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 19:10	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 19:10	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 19:10	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 19:10	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 19:10	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 19:10	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 19:10	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 19:10	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 19:10	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 19:10	WG1497262
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 19:10*	WG1497262
(S) 4-Bromofluorobenzene	*98.3*			*77.0-126*		*06/23/2020 19:10*	WG1497262
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*06/23/2020 19:10*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.533		0.0247	0.100	1	06/26/2020 10:37	WG1497084
(S) o-Terphenyl	*72.1*			*31.0-160*		*06/26/2020 10:37*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1270		5.64	20.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		5.00	10.0	100	06/30/2020 18:44	WG1499267

Sample Narrative:

L1231153-06 WG1499267: diluted due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	17.9		0.379	1.00	1	06/26/2020 20:16	WG1498103
Fluoride	1.63		0.0640	0.150	1	06/26/2020 20:16	WG1498103
Sulfate	365		2.97	25.0	5	06/27/2020 13:23	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00111	J	0.000735	0.00200	1	06/29/2020 00:03	WG1498750
Arsenic,Dissolved	0.00121	J	0.000735	0.00200	1	06/26/2020 16:51	WG1498727
Barium	0.0411		0.00778	0.0200	1	06/29/2020 00:03	WG1498750
Barium,Dissolved	0.0427		0.00778	0.0200	1	06/26/2020 16:51	WG1498727
Calcium	157		0.480	1.00	1	06/29/2020 00:03	WG1498750
Chromium	U		0.00149	0.00200	1	06/29/2020 00:03	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 16:51	WG1498727
Iron	0.230		0.0489	0.100	1	06/29/2020 00:03	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 16:51	WG1498727
Lead	U		0.00249	0.00500	1	06/29/2020 00:03	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 16:51	WG1498727
Manganese	0.0401		0.00132	0.00500	1	06/29/2020 00:03	WG1498750
Manganese,Dissolved	0.0364		0.00132	0.00500	1	06/26/2020 16:51	WG1498727
Potassium	U		0.534	2.00	1	06/29/2020 00:03	WG1498750
Selenium	U		0.000657	0.00200	1	06/29/2020 00:03	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 16:51	WG1498727
Sodium	45.5		0.630	2.00	1	06/29/2020 00:03	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/23/2020 19:29	WG1497262
Benzene	0.235		0.000471	0.00500	5	06/23/2020 19:29	WG1497262
Bromodichloromethane	U		0.000680	0.00500	5	06/23/2020 19:29	WG1497262
Bromoform	U		0.000645	0.00500	5	06/23/2020 19:29	WG1497262
Bromomethane	U		0.00303	0.0250	5	06/23/2020 19:29	WG1497262
n-Butylbenzene	0.00177	J	0.000785	0.00500	5	06/23/2020 19:29	WG1497262
sec-Butylbenzene	0.00388	J	0.000625	0.00500	5	06/23/2020 19:29	WG1497262
Carbon disulfide	0.000980	B J	0.000481	0.00500	5	06/23/2020 19:29	WG1497262
Carbon tetrachloride	U		0.000640	0.00500	5	06/23/2020 19:29	WG1497262
Chlorobenzene	U		0.000580	0.00500	5	06/23/2020 19:29	WG1497262
Chlorodibromomethane	U		0.000700	0.00500	5	06/23/2020 19:29	WG1497262
Chloroethane	U		0.000960	0.0250	5	06/23/2020 19:29	WG1497262
Chloroform	0.00126	J	0.000555	0.0250	5	06/23/2020 19:29	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloromethane	U		0.00480	0.0125	5	06/23/2020 19:29	WG1497262
1,2-Dibromoethane	U		0.000630	0.00500	5	06/23/2020 19:29	WG1497262
1,1-Dichloroethane	U		0.000500	0.00500	5	06/23/2020 19:29	WG1497262
1,2-Dichloroethane	U		0.000409	0.00500	5	06/23/2020 19:29	WG1497262
1,1-Dichloroethene	U		0.000940	0.00500	5	06/23/2020 19:29	WG1497262
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/23/2020 19:29	WG1497262
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/23/2020 19:29	WG1497262
1,2-Dichloropropane	U		0.000745	0.00500	5	06/23/2020 19:29	WG1497262
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/23/2020 19:29	WG1497262
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/23/2020 19:29	WG1497262
Ethylbenzene	0.00278	J	0.000685	0.00500	5	06/23/2020 19:29	WG1497262
Isopropylbenzene	0.0235		0.000525	0.00500	5	06/23/2020 19:29	WG1497262
p-Isopropyltoluene	0.00115	J	0.000600	0.00500	5	06/23/2020 19:29	WG1497262
2-Butanone (MEK)	U		0.00595	0.0500	5	06/23/2020 19:29	WG1497262
2-Hexanone	U		0.00394	0.0500	5	06/23/2020 19:29	WG1497262
Methylene Chloride	U		0.00215	0.0250	5	06/23/2020 19:29	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/23/2020 19:29	WG1497262
Methyl tert-butyl ether	U		0.000505	0.00500	5	06/23/2020 19:29	WG1497262
Naphthalene	U	J4	0.00500	0.0250	5	06/23/2020 19:29	WG1497262
n-Propylbenzene	0.0205		0.000497	0.00500	5	06/23/2020 19:29	WG1497262
Styrene	U		0.000590	0.00500	5	06/23/2020 19:29	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/23/2020 19:29	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/23/2020 19:29	WG1497262
Tetrachloroethene	U		0.00150	0.00500	5	06/23/2020 19:29	WG1497262
Toluene	0.00293	J	0.00139	0.00500	5	06/23/2020 19:29	WG1497262
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/23/2020 19:29	WG1497262
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/23/2020 19:29	WG1497262
Trichloroethene	U		0.000950	0.00500	5	06/23/2020 19:29	WG1497262
1,2,4-Trimethylbenzene	0.0128		0.00161	0.00500	5	06/23/2020 19:29	WG1497262
1,3,5-Trimethylbenzene	0.00213	J	0.000520	0.00500	5	06/23/2020 19:29	WG1497262
Vinyl chloride	U		0.00117	0.00500	5	06/23/2020 19:29	WG1497262
o-Xylene	0.00120	J	0.000870	0.00500	5	06/23/2020 19:29	WG1497262
m&p-Xylene	0.0403		0.00215	0.0100	5	06/23/2020 19:29	WG1497262
Xylenes, Total	0.0415		0.000870	0.0150	5	06/23/2020 19:29	WG1497262
(S) Toluene-d8	*109*			*80.0-120*		*06/23/2020 19:29*	WG1497262
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*06/23/2020 19:29*	WG1497262
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/23/2020 19:29*	WG1497262

Sample Narrative:

L1231153-06 WG1497262: Elevated RL due to foamy matrix.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.79		0.0247	0.100	1	06/26/2020 04:08	WG1497084
(S) o-Terphenyl	*105*			*31.0-160*		*06/26/2020 04:08*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2580		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 18:45	WG1499267

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	21.3		0.379	1.00	1	06/26/2020 20:51	WG1498103
Fluoride	1.36		0.0640	0.150	1	06/26/2020 20:51	WG1498103
Sulfate	1600		29.7	250	50	06/26/2020 21:09	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0135		0.000735	0.00200	1	06/29/2020 00:07	WG1498750
Arsenic,Dissolved	0.0135		0.000735	0.00200	1	06/26/2020 16:55	WG1498727
Barium	0.0134	J	0.00778	0.0200	1	06/29/2020 00:07	WG1498750
Barium,Dissolved	0.0116	J	0.00778	0.0200	1	06/26/2020 16:55	WG1498727
Calcium	308		0.480	1.00	1	06/29/2020 00:07	WG1498750
Chromium	U		0.00149	0.00200	1	06/29/2020 00:07	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 16:55	WG1498727
Iron	1.13		0.0489	0.100	1	06/29/2020 00:07	WG1498750
Iron,Dissolved	0.720		0.0489	0.100	1	06/26/2020 16:55	WG1498727
Lead	U		0.00249	0.00500	1	06/29/2020 00:07	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 16:55	WG1498727
Manganese	2.24		0.00132	0.00500	1	06/29/2020 00:07	WG1498750
Manganese,Dissolved	2.31		0.00132	0.00500	1	06/26/2020 16:55	WG1498727
Potassium	U		0.534	2.00	1	06/29/2020 00:07	WG1498750
Selenium	U		0.000657	0.00200	1	06/29/2020 00:07	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 16:55	WG1498727
Sodium	65.4		0.630	2.00	1	06/29/2020 00:07	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 19:48	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 19:48	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 19:48	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 19:48	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 19:48	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 19:48	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 19:48	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 19:48	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 19:48	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 19:48	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 19:48	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 19:48	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 19:48	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 19:48	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 19:48	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 19:48	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 19:48	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 19:48	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 19:48	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 19:48	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 19:48	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 19:48	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 19:48	WG1497262
Ethylbenzene	0.000241	J	0.000137	0.00100	1	06/23/2020 19:48	WG1497262
Isopropylbenzene	0.000205	J	0.000105	0.00100	1	06/23/2020 19:48	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 19:48	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 19:48	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 19:48	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 19:48	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 19:48	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 19:48	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 19:48	WG1497262
n-Propylbenzene	0.000144	J	0.0000993	0.00100	1	06/23/2020 19:48	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 19:48	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 19:48	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 19:48	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 19:48	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 19:48	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 19:48	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 19:48	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 19:48	WG1497262
1,2,4-Trimethylbenzene	0.000542	J	0.000322	0.00100	1	06/23/2020 19:48	WG1497262
1,3,5-Trimethylbenzene	0.000195	J	0.000104	0.00100	1	06/23/2020 19:48	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 19:48	WG1497262
o-Xylene	0.000287	J	0.000174	0.00100	1	06/23/2020 19:48	WG1497262
m&p-Xylene	0.000667	J	0.000430	0.00200	1	06/23/2020 19:48	WG1497262
Xylenes, Total	0.000954	J	0.000174	0.00300	1	06/23/2020 19:48	WG1497262
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 19:48*	WG1497262
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 19:48*	WG1497262
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 19:48*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.494		0.0247	0.100	1	06/27/2020 01:24	WG1497084
(S) o-Terphenyl	*87.9*			*31.0-160*		*06/27/2020 01:24*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2870		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	18.3		0.250	0.500	5	06/29/2020 21:10	WG1499268

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	06/27/2020 15:57	WG1499866

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	154		19.0	50.0	50	06/26/2020 22:21	WG1498103
Fluoride	1.61		0.0640	0.150	1	06/26/2020 21:27	WG1498103
Sulfate	1510		29.7	250	50	06/26/2020 22:21	WG1498103

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/23/2020 22:30	WG1496610
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:10	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	2.52		0.0254	0.200	1	06/25/2020 17:37	WG1498739
Boron,Dissolved	2.49		0.0254	0.200	1	06/26/2020 08:37	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00271		0.000735	0.00200	1	06/29/2020 00:10	WG1498750
Arsenic,Dissolved	0.00297		0.000735	0.00200	1	06/26/2020 16:58	WG1498727
Barium	0.0126	J	0.00778	0.0200	1	06/29/2020 00:10	WG1498750
Barium,Dissolved	0.0128	J	0.00778	0.0200	1	06/26/2020 16:58	WG1498727
Cadmium	U		0.000478	0.00100	1	06/29/2020 00:10	WG1498750
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 16:58	WG1498727
Calcium	421		0.480	1.00	1	06/29/2020 00:10	WG1498750
Chromium	U		0.00149	0.00200	1	06/29/2020 00:10	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 16:58	WG1498727
Cobalt	U		0.000477	0.00200	1	06/29/2020 00:10	WG1498750
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 16:58	WG1498727
Iron	U		0.0489	0.100	1	06/29/2020 00:10	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 16:58	WG1498727
Lead	U		0.00249	0.00500	1	06/29/2020 00:10	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 16:58	WG1498727
Manganese	0.0169		0.00132	0.00500	1	06/29/2020 00:10	WG1498750
Manganese,Dissolved	0.0131		0.00132	0.00500	1	06/26/2020 16:58	WG1498727
Nickel	0.00103	J	0.000952	0.00200	1	06/29/2020 00:10	WG1498750
Nickel,Dissolved	0.00166	J	0.000952	0.00200	1	06/26/2020 16:58	WG1498727

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	1.66	J	0.534	2.00	1	06/29/2020 00:10	WG1498750
Selenium	0.00739		0.000657	0.00200	1	06/29/2020 00:10	WG1498750
Selenium,Dissolved	0.00785		0.000657	0.00200	1	06/26/2020 16:58	WG1498727
Sodium	58.7		0.630	2.00	1	06/29/2020 00:10	WG1498750
Uranium	0.0451		0.00754	0.0200	1	06/29/2020 00:10	WG1498750
Uranium,Dissolved	0.0442		0.00754	0.0200	1	06/26/2020 16:58	WG1498727
Vanadium	0.0180		0.000986	0.00500	1	06/29/2020 00:10	WG1498750
Vanadium,Dissolved	0.0181		0.000986	0.00500	1	06/26/2020 16:58	WG1498727

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 20:07	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 20:07	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 20:07	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 20:07	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 20:07	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 20:07	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 20:07	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 20:07	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 20:07	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 20:07	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 20:07	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 20:07	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 20:07	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 20:07	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 20:07	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 20:07	WG1497262
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 20:07	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 20:07	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 20:07	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 20:07	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 20:07	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 20:07	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 20:07	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 20:07	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 20:07	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 20:07	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 20:07	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 20:07	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 20:07	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 20:07	WG1497262
Methyl tert-butyl ether	0.000340	J	0.000101	0.00100	1	06/23/2020 20:07	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 20:07	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 20:07	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 20:07	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 20:07	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 20:07	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 20:07	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 20:07	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 20:07	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 20:07	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 20:07	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 20:07	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 20:07	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 20:07	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	U		0.000174	0.00100	1	06/23/2020 20:07	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 20:07	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 20:07	WG1497262
(S) Toluene-d8	*111*			*80.0-120*		*06/23/2020 20:07*	WG1497262
(S) 4-Bromofluorobenzene	*99.5*			*77.0-126*		*06/23/2020 20:07*	WG1497262
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*		*06/23/2020 20:07*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.812		0.0247	0.100	1	06/26/2020 05:00	WG1497084
(S) o-Terphenyl	*81.6*			*31.0-160*		*06/26/2020 05:00*	WG1497084

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 23:05	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/26/2020 23:15	WG1498103
Fluoride	U		0.0640	0.150	1	06/26/2020 23:15	WG1498103
Sulfate	U		0.594	5.00	1	06/26/2020 23:15	WG1498103

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/29/2020 00:26	WG1498750
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 17:01	WG1498727
Barium	U		0.00778	0.0200	1	06/29/2020 00:26	WG1498750
Barium,Dissolved	U		0.00778	0.0200	1	06/26/2020 17:01	WG1498727
Calcium	U		0.480	1.00	1	06/29/2020 00:26	WG1498750
Chromium	U		0.00149	0.00200	1	06/29/2020 00:26	WG1498750
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:01	WG1498727
Iron	U		0.0489	0.100	1	06/29/2020 00:26	WG1498750
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:01	WG1498727
Lead	U		0.00249	0.00500	1	06/29/2020 00:26	WG1498750
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:01	WG1498727
Manganese	U		0.00132	0.00500	1	06/29/2020 00:26	WG1498750
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 17:01	WG1498727
Potassium	U		0.534	2.00	1	06/29/2020 00:26	WG1498750
Selenium	U		0.000657	0.00200	1	06/29/2020 00:26	WG1498750
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 17:01	WG1498727
Sodium	U		0.630	2.00	1	06/29/2020 00:26	WG1498750

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 20:26	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 20:26	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 20:26	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 20:26	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 20:26	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 20:26	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 20:26	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 20:26	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 20:26	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 20:26	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 20:26	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 20:26	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 20:26	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 20:26	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 20:26	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 20:26	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 20:26	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 20:26	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 20:26	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 20:26	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 20:26	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 20:26	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 20:26	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 20:26	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 20:26	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 20:26	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 20:26	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 20:26	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 20:26	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 20:26	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 20:26	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 20:26	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 20:26	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 20:26	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 20:26	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 20:26	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 20:26	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 20:26	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 20:26	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 20:26	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 20:26	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 20:26	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 20:26	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 20:26	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 20:26	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 20:26	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 20:26	WG1497262
(S) Toluene-d8	*112*			*80.0-120*		*06/23/2020 20:26*	WG1497262
(S) 4-Bromofluorobenzene	*99.8*			*77.0-126*		*06/23/2020 20:26*	WG1497262
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*06/23/2020 20:26*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 10:11	WG1497084
(S) o-Terphenyl	*62.6*			*31.0-160*		*06/26/2020 10:11*	WG1497084

Method Blank (MB)

(MB) R3543540-1 06/24/20 23:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231128-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-22 06/24/20 23:15 • (DUP) R3543540-3 06/24/20 23:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1220	1210	1	0.659		5

L1231153-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-04 06/24/20 23:15 • (DUP) R3543540-4 06/24/20 23:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2700	2780	1	2.93		5

Laboratory Control Sample (LCS)

(LCS) R3543540-2 06/24/20 23:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8900	101	85.0-115	

Method Blank (MB)

(MB) R3543550-1 06/25/20 00:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231153-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-06 06/25/20 00:47 • (DUP) R3543550-3 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1270	1250	1	1.58		5

L1231207-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-03 06/25/20 00:47 • (DUP) R3543550-4 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6070	6120	1	0.820		5

Laboratory Control Sample (LCS)

(LCS) R3543550-2 06/25/20 00:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8850	101	85.0-115	

Method Blank (MB)

(MB) R3544839-1 06/30/20 18:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231128-27 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-27 06/30/20 18:11 • (DUP) R3544839-3 06/30/20 18:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	10	0.000		20

Sample Narrative:

OS: diluted due to sulfide hit

L1231128-35 Original Sample (OS) • Duplicate (DUP)

(OS) L1231128-35 06/30/20 18:29 • (DUP) R3544839-6 06/30/20 18:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544839-2 06/30/20 18:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.14	104	90.0-110	

L1231128-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-30 06/30/20 18:20 • (MS) R3544839-4 06/30/20 18:21 • (MSD) R3544839-5 06/30/20 18:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.386	2.85	2.89	98.6	100	1	90.0-110			1.39	20

Received by OCD: 6/23/2021 4:05:29 PM

L1231153-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231153-01 06/30/20 18:36 • (MS) R3544839-7 06/30/20 18:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.48	99.2	1	90.0-110	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3544487-1 06/29/20 21:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231158-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1231158-08 06/29/20 22:38 • (DUP) R3544487-6 06/29/20 22:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	3.88	3.87	1	0.258		20

L1231153-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-09 06/29/20 23:05 • (DUP) R3544487-7 06/29/20 23:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544487-2 06/29/20 21:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.82	95.5	90.0-110	

L1231155-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231155-08 06/29/20 21:26 • (MS) R3544487-3 06/29/20 21:27 • (MSD) R3544487-4 06/29/20 21:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.78	4.21	4.32	97.2	102	1	90.0-110			2.58	20

L1231155-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231155-12 06/29/20 21:34 • (MS) R3544487-5 06/29/20 21:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.0922	2.55	98.3	1	90.0-110	

Method Blank (MB)

(MB) R3543733-1 06/27/20 15:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1231161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-02 06/27/20 16:04 • (DUP) R3543733-5 06/27/20 16:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1231161-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-10 06/27/20 16:17 • (DUP) R3543733-8 06/27/20 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543733-2 06/27/20 15:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.102	102	90.0-110	

L1231161-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-01 06/27/20 16:01 • (MS) R3543733-3 06/27/20 16:02 • (MSD) R3543733-4 06/27/20 16:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0112	0.0856	0.0979	74.4	86.7	1	75.0-125	J6		13.4	20

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/27/20 16:09 • (MS) R3543733-6 06/27/20 16:12 • (MSD) R3543733-7 06/27/20 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0846	0.191	0.193	106	108	1	75.0-125			1.04	20

Method Blank (MB)

(MB) R3543725-1 06/26/20 15:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231153-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-09 06/26/20 23:15 • (DUP) R3543725-5 06/26/20 23:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

L1231330-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1231330-01 06/27/20 05:31 • (DUP) R3543725-6 06/27/20 06:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	19.9	20.0	1	0.457		15
Fluoride	0.770	0.774	1	0.517		15
Sulfate	46.7	46.6	1	0.0591		15

Laboratory Control Sample (LCS)

(LCS) R3543725-2 06/26/20 15:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.5	98.7	80.0-120	
Fluoride	8.00	7.93	99.1	80.0-120	
Sulfate	40.0	40.8	102	80.0-120	

L1231153-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231153-08 06/26/20 21:27 • (MS) R3543725-3 06/26/20 21:45 • (MSD) R3543725-4 06/26/20 22:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	5.00	1.61	6.38	6.35	95.3	94.8	1	80.0-120			0.426	15

L1231330-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231330-02 06/27/20 06:43 • (MS) R3543725-7 06/27/20 07:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	23.3	74.5	102	1	80.0-120	
Fluoride	5.00	0.745	5.82	101	1	80.0-120	
Sulfate	50.0	56.2	106	99.1	1	80.0-120	E

Method Blank (MB)

(MB) R3542120-1 06/23/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542120-2 06/23/20 21:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00265	88.3	80.0-120	

L1231128-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-19 06/23/20 21:41 • (MS) R3542120-3 06/23/20 21:43 • (MSD) R3542120-4 06/23/20 21:45

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00234	0.00216	78.0	72.0	1	75.0-125		J6	8.00	20

Method Blank (MB)

(MB) R3542432-1 06/24/20 10:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542432-2 06/24/20 11:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00292	97.3	80.0-120	

L1231593-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231593-03 06/24/20 11:53 • (MS) R3542432-3 06/24/20 11:55 • (MSD) R3542432-4 06/24/20 11:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00295	0.00295	98.3	98.3	1	75.0-125			0.000	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543383-1 06/26/20 07:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543383-2 06/26/20 07:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.990	99.0	80.0-120	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/26/20 07:57 • (MS) R3543383-4 06/26/20 08:03 • (MSD) R3543383-5 06/26/20 08:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.163	1.14	1.17	97.5	101	1	75.0-125			3.09	20

Method Blank (MB)

(MB) R3543152-5 06/25/20 23:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543152-1 06/25/20 16:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	1.02	102	80.0-120	

L1231139-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231139-02 06/25/20 16:51 • (MS) R3543152-3 06/25/20 16:56 • (MSD) R3543152-4 06/25/20 16:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.209	1.24	1.22	103	101	1	75.0-125			1.40	20

Method Blank (MB)

(MB) R3543505-1 06/26/20 13:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543505-2 06/26/20 13:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0516	103	80.0-120	
Barium,Dissolved	0.0500	0.0478	95.7	80.0-120	
Cadmium,Dissolved	0.0500	0.0536	107	80.0-120	
Chromium,Dissolved	0.0500	0.0536	107	80.0-120	
Cobalt,Dissolved	0.0500	0.0532	106	80.0-120	
Iron,Dissolved	5.00	5.55	111	80.0-120	
Lead,Dissolved	0.0500	0.0502	100	80.0-120	
Manganese,Dissolved	0.0500	0.0514	103	80.0-120	
Nickel,Dissolved	0.0500	0.0541	108	80.0-120	
Selenium,Dissolved	0.0500	0.0519	104	80.0-120	
Uranium,Dissolved	0.0500	0.0508	102	80.0-120	
Vanadium,Dissolved	0.0500	0.0518	104	80.0-120	

L1231128-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-20 06/26/20 13:58 • (MS) R3543505-4 06/26/20 14:05 • (MSD) R3543505-5 06/26/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0357	0.0845	0.0872	97.6	103	1	75.0-125			3.16	20
Barium,Dissolved	0.0500	0.0178	0.0673	0.0681	98.9	101	1	75.0-125			1.22	20
Cadmium,Dissolved	0.0500	U	0.0529	0.0550	106	110	1	75.0-125			3.93	20

L1231128-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-20 06/26/20 13:58 • (MS) R3543505-4 06/26/20 14:05 • (MSD) R3543505-5 06/26/20 14:09

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0504	0.0521	101	104	1	75.0-125			3.45	20
Cobalt,Dissolved	0.0500	0.00189	0.0515	0.0527	99.3	102	1	75.0-125			2.28	20
Iron,Dissolved	5.00	0.0695	5.07	5.18	100	102	1	75.0-125			2.29	20
Lead,Dissolved	0.0500	U	0.0489	0.0511	97.9	102	1	75.0-125			4.30	20
Manganese,Dissolved	0.0500	0.364	0.415	0.418	103	109	1	75.0-125			0.738	20
Nickel,Dissolved	0.0500	0.00343	0.0528	0.0547	98.7	103	1	75.0-125			3.52	20
Selenium,Dissolved	0.0500	U	0.0527	0.0537	105	107	1	75.0-125			1.86	20
Uranium,Dissolved	0.0500	U	0.0544	0.0561	109	112	1	75.0-125			3.08	20
Vanadium,Dissolved	0.0500	U	0.0513	0.0530	103	106	1	75.0-125			3.27	20

Method Blank (MB)

(MB) R3543558-1 06/26/20 16:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543558-2 06/26/20 16:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0485	97.1	80.0-120	
Barium,Dissolved	0.0500	0.0501	100	80.0-120	
Cadmium,Dissolved	0.0500	0.0536	107	80.0-120	
Chromium,Dissolved	0.0500	0.0507	101	80.0-120	
Cobalt,Dissolved	0.0500	0.0512	102	80.0-120	
Iron,Dissolved	5.00	5.20	104	80.0-120	
Lead,Dissolved	0.0500	0.0496	99.2	80.0-120	
Manganese,Dissolved	0.0500	0.0496	99.2	80.0-120	
Nickel,Dissolved	0.0500	0.0511	102	80.0-120	
Selenium,Dissolved	0.0500	0.0541	108	80.0-120	
Uranium,Dissolved	0.0500	0.0504	101	80.0-120	
Vanadium,Dissolved	0.0500	0.0499	99.9	80.0-120	

L1231153-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231153-04 06/26/20 16:08 • (MS) R3543558-4 06/26/20 16:15 • (MSD) R3543558-5 06/26/20 16:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0273	0.0779	0.0797	101	105	1	75.0-125			2.26	20
Barium,Dissolved	0.0500	0.0214	0.0727	0.0728	103	103	1	75.0-125			0.205	20
Cadmium,Dissolved	0.0500	U	0.0551	0.0559	110	112	1	75.0-125			1.46	20

L1231153-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231153-04 06/26/20 16:08 • (MS) R3543558-4 06/26/20 16:15 • (MSD) R3543558-5 06/26/20 16:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0510	0.0528	102	106	1	75.0-125			3.52	20
Cobalt,Dissolved	0.0500	0.00143	0.0518	0.0534	101	104	1	75.0-125			3.09	20
Iron,Dissolved	5.00	0.787	5.93	6.04	103	105	1	75.0-125			1.95	20
Lead,Dissolved	0.0500	U	0.0503	0.0520	101	104	1	75.0-125			3.39	20
Manganese,Dissolved	0.0500	0.905	0.912	0.936	13.6	61.4	1	75.0-125	V	V	2.59	20
Nickel,Dissolved	0.0500	0.00318	0.0537	0.0545	101	103	1	75.0-125			1.42	20
Selenium,Dissolved	0.0500	U	0.0537	0.0527	107	105	1	75.0-125			1.98	20
Uranium,Dissolved	0.0500	U	0.0545	0.0565	109	113	1	75.0-125			3.55	20
Vanadium,Dissolved	0.0500	U	0.0513	0.0529	103	106	1	75.0-125			3.14	20

Method Blank (MB)

(MB) R3544019-1 06/28/20 22:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3544019-2 06/28/20 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0489	97.7	80.0-120	
Barium	0.0500	0.0516	103	80.0-120	
Cadmium	0.0500	0.0512	102	80.0-120	
Calcium	5.00	5.01	100	80.0-120	
Chromium	0.0500	0.0509	102	80.0-120	
Cobalt	0.0500	0.0513	103	80.0-120	
Iron	5.00	5.11	102	80.0-120	
Lead	0.0500	0.0497	99.4	80.0-120	
Manganese	0.0500	0.0507	101	80.0-120	
Nickel	0.0500	0.0510	102	80.0-120	
Potassium	5.00	4.95	99.1	80.0-120	
Selenium	0.0500	0.0490	98.1	80.0-120	
Sodium	5.00	5.12	102	80.0-120	
Uranium	0.0500	0.0507	101	80.0-120	
Vanadium	0.0500	0.0497	99.3	80.0-120	

L1231128-27 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231128-27 06/28/20 22:28 • (MS) R3544019-4 06/28/20 22:35 • (MSD) R3544019-5 06/28/20 22:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00595	0.0535	0.0546	95.1	97.3	1	75.0-125			2.10	20
Barium	0.0500	9.81	9.92	9.87	225	106	1	75.0-125	V		0.599	20
Cadmium	0.0500	U	0.0520	0.0514	104	103	1	75.0-125			1.26	20
Calcium	5.00	96.4	99.5	99.6	62.8	64.4	1	75.0-125	V	V	0.0820	20
Chromium	0.0500	U	0.0479	0.0485	95.8	97.1	1	75.0-125			1.31	20
Cobalt	0.0500	U	0.0477	0.0488	95.3	97.6	1	75.0-125			2.33	20
Potassium	5.00	1.10	5.77	5.98	93.3	97.6	1	75.0-125			3.64	20
Iron	5.00	0.0693	4.91	4.93	96.9	97.2	1	75.0-125			0.325	20
Lead	0.0500	0.00484	0.0575	0.0572	105	105	1	75.0-125			0.600	20
Manganese	0.0500	0.0692	0.113	0.115	88.2	92.2	1	75.0-125			1.74	20
Nickel	0.0500	U	0.0480	0.0493	96.1	98.6	1	75.0-125			2.62	20
Selenium	0.0500	U	0.0518	0.0491	104	98.1	1	75.0-125			5.50	20
Sodium	5.00	426	411	420	0.000	0.000	1	75.0-125	V	V	2.29	20
Uranium	0.0500	U	0.0543	0.0541	109	108	1	75.0-125			0.294	20
Vanadium	0.0500	U	0.0484	0.0500	96.7	100	1	75.0-125			3.37	20

Method Blank (MB)

(MB) R3543687-2 06/23/20 15:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000150	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	0.00516	J	0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	0.00158	J	0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543687-2 06/23/20 15:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543687-1 06/23/20 12:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0333	133	19.0-160	
Benzene	0.00500	0.00472	94.4	70.0-123	
Bromodichloromethane	0.00500	0.00452	90.4	75.0-120	
Bromoform	0.00500	0.00494	98.8	68.0-132	
Bromomethane	0.00500	0.00548	110	10.0-160	
n-Butylbenzene	0.00500	0.00433	86.6	73.0-125	
sec-Butylbenzene	0.00500	0.00419	83.8	75.0-125	
Carbon disulfide	0.00500	0.00435	87.0	61.0-128	
Carbon tetrachloride	0.00500	0.00384	76.8	68.0-126	
Chlorobenzene	0.00500	0.00477	95.4	80.0-121	
Chlorodibromomethane	0.00500	0.00475	95.0	77.0-125	
Chloroethane	0.00500	0.00452	90.4	47.0-150	
Chloroform	0.00500	0.00486	97.2	73.0-120	
Chloromethane	0.00500	0.00459	91.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00459	91.8	80.0-122	
1,1-Dichloroethane	0.00500	0.00422	84.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00490	98.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00463	92.6	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00457	91.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00481	96.2	73.0-120	
1,2-Dichloropropane	0.00500	0.00424	84.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00454	90.8	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00451	90.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543687-1 06/23/20 12:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00465	93.0	79.0-123	
2-Hexanone	0.0250	0.0245	98.0	67.0-149	
Isopropylbenzene	0.00500	0.00477	95.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00423	84.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0232	92.8	44.0-160	
Methylene Chloride	0.00500	0.00436	87.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0231	92.4	68.0-142	
Methyl tert-butyl ether	0.00500	0.00499	99.8	68.0-125	
Naphthalene	0.00500	0.00686	137	54.0-135	J4
n-Propylbenzene	0.00500	0.00423	84.6	77.0-124	
Styrene	0.00500	0.00446	89.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00456	91.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00432	86.4	65.0-130	
Tetrachloroethene	0.00500	0.00441	88.2	72.0-132	
Toluene	0.00500	0.00464	92.8	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00488	97.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00431	86.2	80.0-120	
Trichloroethene	0.00500	0.00463	92.6	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00418	83.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00463	92.6	76.0-122	
Vinyl chloride	0.00500	0.00442	88.4	67.0-131	
Xylenes, Total	0.0150	0.0139	92.7	79.0-123	
o-Xylene	0.00500	0.00485	97.0	80.0-122	
m&p-Xylenes	0.0100	0.00903	90.3	80.0-122	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3543272-1 06/25/20 23:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*52.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543272-2 06/25/20 23:57 • (LCSD) R3543272-3 06/26/20 00:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.33	1.34	88.7	89.3	50.0-150			0.749	20
(S) o-Terphenyl				*93.5*	*93.5*	*31.0-160*				

Method Blank (MB)

(MB) R3543222-1 06/26/20 01:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*72.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543222-2 06/26/20 02:24 • (LCSD) R3543222-3 06/26/20 02:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.36	1.41	90.7	94.0	50.0-150			3.61	20
(S) o-Terphenyl				*91.5*	*95.0*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

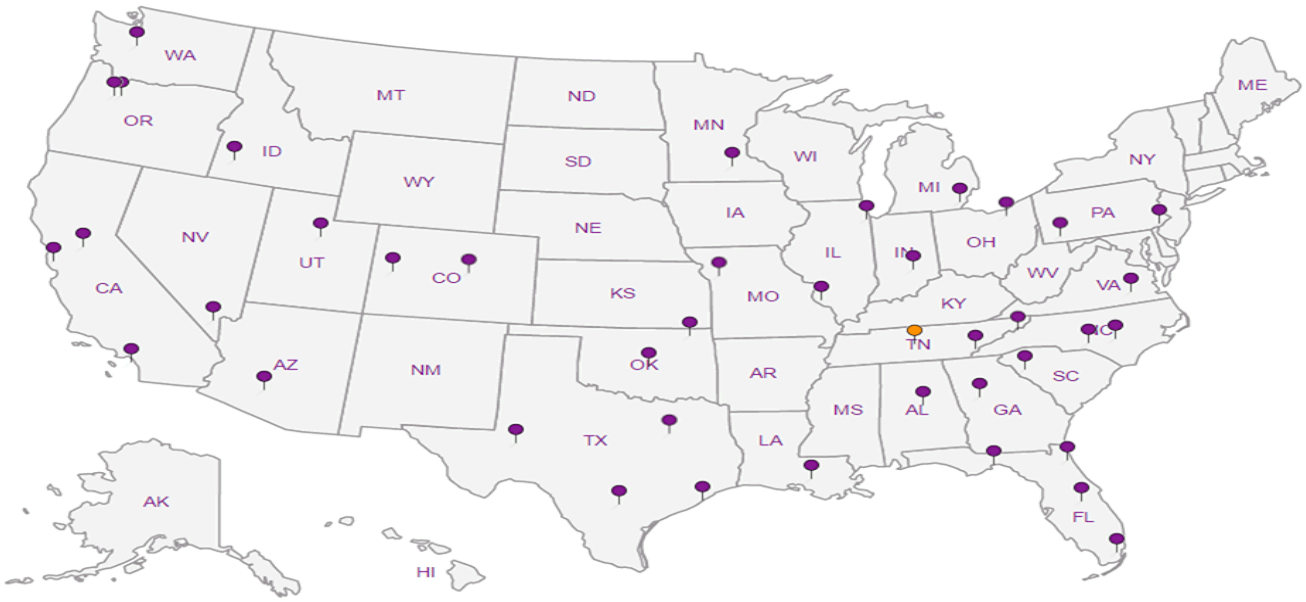
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
TRC Solutions - Austin, TX	330538.0000.0000	L1231153	07/02/20 12:47	51 of 54

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical* National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123153
Tat J123
Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-56~~	Grab	GW				8	X	X		X	X	X						
MW-45	Grab	GW		6/17/20	1520	9	X	X			X	X	X	X				01
NCL-34A	Grab	GW		6/17/20	1310	8	X	X		X	X	X						02
NCL-33	Grab	GW		6/17/20	1355	8	X	X		X	X	X						03
NCL-44	Grab	GW		6/17/20	1135	8	X	X		X	X	X						04
NCL-32	Grab	GW		6/17/20	1050	8	X	X		X	X	X						05
MW-108	Grab	GW		6/17/20	925	8	X	X		X	X	X						06
NCL-31	Grab	GW		6/17/20	1005	8	X	X		X	X	X						07
~~MW-55~~	Grab	GW				11	X	X	X		X	X	X	X				
MW-18	Grab	GW		6/17/20	1440	9	X	X			X	X	X	X				08

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes (No) HCL / MeOH TBR	If preservation required by Login: Date/Time
Scott Ude	6/17/20	1700			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1 °C Bottles Received: 74	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **NCL Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-NCL**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **NCL (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-54A~~	Grab	GW				8	X	X		X	X	X						
~~NCL-49~~	Grab	GW				8	X	X		X	X	X						
~~MW-53~~	~~Grab~~	~~GW~~				~~8~~	~~X~~	~~X~~		~~X~~	~~X~~	~~X~~	missing due to construction					
~~DUP-NCL-01~~	Grab	GW				8	X	X		X	X	X						
EB-NCL-01	Grab	GW		6/17/20	1100	8	X	X		X	X	X						09
~~TRIP BLANK-NCL-01~~	Grab	GW				1	X											

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123153

Table #

Acctnum: TRCATX
Template: T133457
Prelogin: P763441
TSR: 526
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.7 °C Bottles Received: 14
				5.1-E.4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845
			Hanley Ude	

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

FedEx Tracking #:	Corresponding temp	
1663 5756 9467	4.1 - 0.1 = 4.0	HM A7
1676 2755 8222	0.9 - .1 = 0.8	
1663 5756 9732	0.4 - .1 = 0.3	
9489	1.3 + .1 = 1.4	MP A3
1676 2755 8233	0.5 - .1 = 0.4	HM A7
1663 5756 9835	1.1 + .1 = 1.2	MP A3
9412	1.9 - .1 = 1.8	HM A7
9490	1.1 - .1 = 1.0	
1676 2755 8211	1.2 - .1 = 1.1	
1203 5785 6051	1.5 - .1 = 1.4	
1663 5756 1054	1.5 - .1 = 1.4	
1087	1.7 - .1 = 1.6	
1043	0.8 - .1 = 0.7	
1065	0.3 - .1 = 0.2	
1076	1.0 - .1 = 0.9	
9478	3.7 - .1 = 3.6	
9721	0.3 - .1 = 0.2	
9798	1.2 - .1 = 1.1	
4492 6230 1294	1.5 - .1 = 1.4	
1203 5785 6040	1.1 - .1 = 1.0	
1663 5756 9423	1.5 - .1 = 1.4	
No Tracking #	1.6 - .1 = 1.5	KI A7

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

June 30, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1231155
Samples Received:	06/19/2020
Project Number:	330538.0000.0000
Description:	TMD Spring 2020
Site:	TMD - NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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MW-25 L1231155-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:14	06/29/20 21:14	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/25/20 22:48	06/25/20 22:48	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	20	06/25/20 23:22	06/25/20 23:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:05	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 15:09	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 19:15	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 20:45	06/23/20 20:45	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 09:45	JDG	Mt. Juliet, TN

MW-20 L1231155-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:35
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:15	06/29/20 21:15	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/25/20 23:55	06/25/20 23:55	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 00:52	06/26/20 00:52	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:08	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 15:13	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 19:18	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 21:04	06/23/20 21:04	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 03:33	KME	Mt. Juliet, TN

NP-1 L1231155-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:16	06/29/20 21:16	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 01:43	06/26/20 01:43	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 02:00	06/26/20 02:00	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 15:16	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 21:23	06/23/20 21:23	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1500250	5	06/28/20 06:29	06/28/20 06:29	DWR	Mt. Juliet, TN

MW-8 L1231155-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:30
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	5	06/29/20 21:17	06/29/20 21:17	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 02:17	06/26/20 02:17	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 02:34	06/26/20 02:34	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:12	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 15:20	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 20:45	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 22:48	06/25/20 22:48	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 21:42	06/23/20 21:42	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1500250	5	06/28/20 08:13	06/28/20 08:13	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 06:18	JDG	Mt. Juliet, TN

MW-21 L1231155-05 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:35
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	5	06/29/20 21:22	06/29/20 21:22	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 02:51	06/26/20 02:51	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 03:08	06/26/20 03:08	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:15	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 15:24	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 20:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499248	1	06/25/20 23:10	06/25/20 23:10	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 22:00	06/23/20 22:00	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1500250	5	06/28/20 08:34	06/28/20 08:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 06:44	JDG	Mt. Juliet, TN

MW-71 L1231155-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	10	06/29/20 22:33	06/29/20 22:33	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1499866	1	06/27/20 14:03	06/27/20 16:00	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 03:24	06/26/20 03:24	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 03:41	06/26/20 03:41	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1496611	1	06/22/20 19:00	06/23/20 15:28	TCT	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:12	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498719	1	06/25/20 23:45	06/26/20 08:40	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498739	1	06/25/20 12:13	06/25/20 17:40	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:19	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 20:52	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 22:19	06/23/20 22:19	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1500250	1	06/28/20 08:55	06/28/20 08:55	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 07:10	JDG	Mt. Juliet, TN

MW-68 L1231155-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 22:34	06/29/20 22:34	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 03:58	06/26/20 03:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 04:15	06/26/20 04:15	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:34	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 20:56	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 22:38	06/23/20 22:38	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 07:36	JDG	Mt. Juliet, TN

MW-27 L1231155-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:26	06/29/20 21:26	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 05:06	06/26/20 05:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	20	06/26/20 05:23	06/26/20 05:23	ELN	Mt. Juliet, TN

MW-27 L1231155-08 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 13:25 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:37	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 21:00	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 22:57	06/23/20 22:57	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/26/20 08:02	JDG	Mt. Juliet, TN

MW-89 L1231155-09 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 10:40 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:30	06/29/20 21:30	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 05:40	06/26/20 05:40	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 05:57	06/26/20 05:57	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:41	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 21:03	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 23:16	06/23/20 23:16	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 01:50	KME	Mt. Juliet, TN

MW-16 L1231155-10 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 11:35 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:31	06/29/20 21:31	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 06:14	06/26/20 06:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 06:30	06/26/20 06:30	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 21:07	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 23:35	06/23/20 23:35	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 02:16	KME	Mt. Juliet, TN

MW-26 L1231155-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 12:30 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:32	06/29/20 21:32	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 06:47	06/26/20 06:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 07:04	06/26/20 07:04	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:48	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 21:11	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497262	1	06/23/20 23:54	06/23/20 23:54	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 02:41	KME	Mt. Juliet, TN

MW-46R L1231155-12 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 13:45 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499268	1	06/29/20 21:34	06/29/20 21:34	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 07:21	06/26/20 07:21	ELN	Mt. Juliet, TN

MW-46R L1231155-12 GW

			Collected by	Collected date/time	Received date/time
			Scott Ude / HMI Team	06/17/20 13:45	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 07:38	06/26/20 07:38	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498727	1	06/25/20 19:59	06/26/20 17:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498751	1	06/26/20 10:11	06/26/20 21:14	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497267	1	06/23/20 02:32	06/23/20 02:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	1	06/23/20 15:44	06/27/20 03:07	KME	Mt. Juliet, TN

TRIP BLANK-TMD-01 L1231155-13 GW

			Collected by	Collected date/time	Received date/time
			Scott Ude / HMI Team	06/17/20 00:00	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497267	1	06/23/20 02:12	06/23/20 02:12	JHH	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3610		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.143		0.0500	0.100	1	06/29/2020 21:14	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	976		7.58	20.0	20	06/25/2020 23:22	WG1498060
Fluoride	1.31		0.0640	0.150	1	06/25/2020 22:48	WG1498060
Sulfate	1450		11.9	100	20	06/25/2020 23:22	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00216		0.000735	0.00200	1	06/26/2020 15:09	WG1498751
Arsenic,Dissolved	0.00200	J	0.000735	0.00200	1	06/26/2020 17:05	WG1498727
Barium	0.0150	J	0.00778	0.0200	1	06/26/2020 15:09	WG1498751
Barium,Dissolved	0.0111	J	0.00778	0.0200	1	06/26/2020 17:05	WG1498727
Calcium	323		0.480	1.00	1	06/26/2020 15:09	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 15:09	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:05	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 15:09	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:05	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 15:09	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:05	WG1498727
Manganese	0.906		0.00132	0.00500	1	06/26/2020 15:09	WG1498751
Manganese,Dissolved	0.183		0.00132	0.00500	1	06/26/2020 17:05	WG1498727
Potassium	3.90		0.534	2.00	1	06/26/2020 15:09	WG1498751
Selenium	0.00318		0.000657	0.00200	1	06/26/2020 19:15	WG1498751
Selenium,Dissolved	0.00208		0.000657	0.00200	1	06/26/2020 17:05	WG1498727
Sodium	653		0.630	2.00	1	06/26/2020 15:09	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 20:45	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 20:45	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 20:45	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 20:45	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 20:45	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 20:45	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 20:45	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 20:45	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 20:45	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 20:45	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 20:45	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 20:45	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 20:45	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 20:45	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 20:45	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 20:45	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 20:45	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 20:45	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 20:45	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 20:45	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 20:45	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 20:45	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 20:45	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 20:45	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 20:45	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 20:45	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 20:45	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 20:45	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 20:45	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 20:45	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 20:45	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 20:45	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 20:45	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 20:45	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 20:45	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 20:45	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 20:45	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 20:45	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 20:45	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 20:45	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 20:45	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 20:45	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 20:45	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 20:45	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 20:45	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 20:45	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 20:45	WG1497262
(S) Toluene-d8	*109*			*80.0-120*		*06/23/2020 20:45*	WG1497262
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*		*06/23/2020 20:45*	WG1497262
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 20:45*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 09:45	WG1497084
(S) o-Terphenyl	*62.1*			*31.0-160*		*06/26/2020 09:45*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4590		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.38		0.0500	0.100	1	06/29/2020 21:15	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	382		37.9	100	100	06/26/2020 00:52	WG1498060
Fluoride	2.26		0.0640	0.150	1	06/25/2020 23:55	WG1498060
Sulfate	2830		59.4	500	100	06/26/2020 00:52	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00549		0.000735	0.00200	1	06/26/2020 15:13	WG1498751
Arsenic,Dissolved	0.00553		0.000735	0.00200	1	06/26/2020 17:08	WG1498727
Barium	0.00996	J	0.00778	0.0200	1	06/26/2020 15:13	WG1498751
Barium,Dissolved	0.00949	J	0.00778	0.0200	1	06/26/2020 17:08	WG1498727
Calcium	522		0.480	1.00	1	06/26/2020 15:13	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 15:13	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:08	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 15:13	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:08	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 15:13	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:08	WG1498727
Manganese	0.00342	J	0.00132	0.00500	1	06/26/2020 15:13	WG1498751
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 17:08	WG1498727
Potassium	0.601	J	0.534	2.00	1	06/26/2020 15:13	WG1498751
Selenium	0.00505		0.000657	0.00200	1	06/26/2020 19:18	WG1498751
Selenium,Dissolved	0.00424		0.000657	0.00200	1	06/26/2020 17:08	WG1498727
Sodium	284		0.630	2.00	1	06/26/2020 15:13	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 21:04	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 21:04	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 21:04	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 21:04	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 21:04	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 21:04	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 21:04	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 21:04	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 21:04	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 21:04	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 21:04	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 21:04	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 21:04	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 21:04	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 21:04	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 21:04	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 21:04	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 21:04	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 21:04	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 21:04	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 21:04	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 21:04	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 21:04	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 21:04	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 21:04	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 21:04	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 21:04	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 21:04	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 21:04	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 21:04	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 21:04	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 21:04	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 21:04	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 21:04	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 21:04	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 21:04	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 21:04	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 21:04	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 21:04	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 21:04	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 21:04	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 21:04	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 21:04	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 21:04	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 21:04	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 21:04	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 21:04	WG1497262
(S) Toluene-d8	*109*			*80.0-120*		*06/23/2020 21:04*	WG1497262
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/23/2020 21:04*	WG1497262
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 21:04*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/27/2020 03:33	WG1497084
(S) o-Terphenyl	*65.8*			*31.0-160*		*06/27/2020 03:33*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4060		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.27		0.0500	0.100	1	06/29/2020 21:16	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	409		37.9	100	100	06/26/2020 02:00	WG1498060
Fluoride	1.89		0.0640	0.150	1	06/26/2020 01:43	WG1498060
Sulfate	2260		59.4	500	100	06/26/2020 02:00	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	436		0.480	1.00	1	06/26/2020 15:16	WG1498751
Potassium	2.59		0.534	2.00	1	06/26/2020 15:16	WG1498751
Sodium	311		0.630	2.00	1	06/26/2020 15:16	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 21:23	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 21:23	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 21:23	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 21:23	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 21:23	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 21:23	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 21:23	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 21:23	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 21:23	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 21:23	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 21:23	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 21:23	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 21:23	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 21:23	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 21:23	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 21:23	WG1497262
1,2-Dichloroethane	0.000187	J	0.0000819	0.00100	1	06/23/2020 21:23	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 21:23	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 21:23	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 21:23	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 21:23	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 21:23	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 21:23	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 21:23	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 21:23	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 21:23	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 21:23	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 21:23	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 21:23	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 21:23	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.216		0.000505	0.00500	5	06/28/2020 06:29	WG1500250
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 21:23	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 21:23	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 21:23	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 21:23	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 21:23	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 21:23	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 21:23	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 21:23	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 21:23	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 21:23	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 21:23	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 21:23	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 21:23	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 21:23	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 21:23	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 21:23	WG1497262
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 21:23*	WG1497262
(S) Toluene-d8	*113*			*80.0-120*		*06/28/2020 06:29*	WG1500250
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*06/23/2020 21:23*	WG1497262
(S) 4-Bromofluorobenzene	*92.9*			*77.0-126*		*06/28/2020 06:29*	WG1500250
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 21:23*	WG1497262
(S) 1,2-Dichloroethane-d4	*99.8*			*70.0-130*		*06/28/2020 06:29*	WG1500250

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5260		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	16.0		0.250	0.500	5	06/29/2020 21:17	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	599		37.9	100	100	06/26/2020 02:34	WG1498060
Fluoride	2.04		0.0640	0.150	1	06/26/2020 02:17	WG1498060
Sulfate	3060		59.4	500	100	06/26/2020 02:34	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00709		0.000735	0.00200	1	06/26/2020 15:20	WG1498751
Arsenic,Dissolved	0.00646		0.000735	0.00200	1	06/26/2020 17:12	WG1498727
Barium	0.0155	J	0.00778	0.0200	1	06/26/2020 15:20	WG1498751
Barium,Dissolved	0.0155	J	0.00778	0.0200	1	06/26/2020 17:12	WG1498727
Calcium	534		0.480	1.00	1	06/26/2020 15:20	WG1498751
Chromium	0.00547	B	0.00149	0.00200	1	06/26/2020 15:20	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:12	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 15:20	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:12	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 15:20	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:12	WG1498727
Manganese	0.808		0.00132	0.00500	1	06/26/2020 15:20	WG1498751
Manganese,Dissolved	0.730		0.00132	0.00500	1	06/26/2020 17:12	WG1498727
Potassium	1.98	J	0.534	2.00	1	06/26/2020 15:20	WG1498751
Selenium	0.0626		0.000657	0.00200	1	06/26/2020 20:45	WG1498751
Selenium,Dissolved	0.0566		0.000657	0.00200	1	06/26/2020 17:12	WG1498727
Sodium	393		0.630	2.00	1	06/26/2020 15:20	WG1498751

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.300		0.0314	0.100	1	06/25/2020 22:48	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 22:48*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 21:42	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 21:42	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 21:42	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 21:42	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 21:42	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 21:42	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 21:42	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 21:42	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 21:42	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 21:42	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 21:42	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 21:42	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 21:42	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 21:42	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 21:42	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 21:42	WG1497262
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 21:42	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 21:42	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 21:42	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 21:42	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 21:42	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 21:42	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 21:42	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 21:42	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 21:42	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 21:42	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 21:42	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 21:42	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 21:42	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 21:42	WG1497262
Methyl tert-butyl ether	0.149		0.000505	0.00500	5	06/28/2020 08:13	WG1500250
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 21:42	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 21:42	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 21:42	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 21:42	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 21:42	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 21:42	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 21:42	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 21:42	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 21:42	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 21:42	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 21:42	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 21:42	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 21:42	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 21:42	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 21:42	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 21:42	WG1497262
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 21:42*	WG1497262
(S) Toluene-d8	*113*			*80.0-120*		*06/28/2020 08:13*	WG1500250
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 21:42*	WG1497262
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*06/28/2020 08:13*	WG1500250
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*06/23/2020 21:42*	WG1497262
(S) 1,2-Dichloroethane-d4	*92.7*			*70.0-130*		*06/28/2020 08:13*	WG1500250

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0458	J	0.0247	0.100	1	06/26/2020 06:18	WG1497084
(S) o-Terphenyl	*64.7*			*31.0-160*		*06/26/2020 06:18*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5480		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	18.6		0.250	0.500	5	06/29/2020 21:22	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	641		37.9	100	100	06/26/2020 03:08	WG1498060
Fluoride	2.02		0.0640	0.150	1	06/26/2020 02:51	WG1498060
Sulfate	3130		59.4	500	100	06/26/2020 03:08	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00561		0.000735	0.00200	1	06/26/2020 15:24	WG1498751
Arsenic,Dissolved	0.00539		0.000735	0.00200	1	06/26/2020 17:15	WG1498727
Barium	0.00916	J	0.00778	0.0200	1	06/26/2020 15:24	WG1498751
Barium,Dissolved	0.00862	J	0.00778	0.0200	1	06/26/2020 17:15	WG1498727
Calcium	586		0.480	1.00	1	06/26/2020 15:24	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 15:24	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:15	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 15:24	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:15	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 15:24	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:15	WG1498727
Manganese	0.353		0.00132	0.00500	1	06/26/2020 15:24	WG1498751
Manganese,Dissolved	0.245		0.00132	0.00500	1	06/26/2020 17:15	WG1498727
Potassium	2.17		0.534	2.00	1	06/26/2020 15:24	WG1498751
Selenium	0.0521		0.000657	0.00200	1	06/26/2020 20:49	WG1498751
Selenium,Dissolved	0.0497		0.000657	0.00200	1	06/26/2020 17:15	WG1498727
Sodium	440		0.630	2.00	1	06/26/2020 15:24	WG1498751

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.284		0.0314	0.100	1	06/25/2020 23:10	WG1499248
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/25/2020 23:10*	WG1499248

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 22:00	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 22:00	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 22:00	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 22:00	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 22:00	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 22:00	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 22:00	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 22:00	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 22:00	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 22:00	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 22:00	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 22:00	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 22:00	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 22:00	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 22:00	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 22:00	WG1497262
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 22:00	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 22:00	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 22:00	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 22:00	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 22:00	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 22:00	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 22:00	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 22:00	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 22:00	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 22:00	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 22:00	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 22:00	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 22:00	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 22:00	WG1497262
Methyl tert-butyl ether	0.128		0.000505	0.00500	5	06/28/2020 08:34	WG1500250
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 22:00	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 22:00	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 22:00	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 22:00	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 22:00	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 22:00	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 22:00	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 22:00	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 22:00	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 22:00	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 22:00	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 22:00	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 22:00	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 22:00	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 22:00	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 22:00	WG1497262
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 22:00*	WG1497262
(S) Toluene-d8	*114*			*80.0-120*		*06/28/2020 08:34*	WG1500250
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*06/23/2020 22:00*	WG1497262
(S) 4-Bromofluorobenzene	*95.3*			*77.0-126*		*06/28/2020 08:34*	WG1500250
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/23/2020 22:00*	WG1497262
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*		*06/28/2020 08:34*	WG1500250

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.149		0.0247	0.100	1	06/26/2020 06:44	WG1497084
(S) o-Terphenyl	*63.7*			*31.0-160*		*06/26/2020 06:44*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	6020		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	27.8		0.500	1.00	10	06/29/2020 22:33	WG1499268

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	06/27/2020 16:00	WG1499866

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	770		37.9	100	100	06/26/2020 03:41	WG1498060
Fluoride	1.89		0.0640	0.150	1	06/26/2020 03:24	WG1498060
Sulfate	3130		59.4	500	100	06/26/2020 03:41	WG1498060

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	06/23/2020 15:28	WG1496611
Mercury,Dissolved	U		0.000100	0.000200	1	06/24/2020 12:12	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.622		0.0254	0.200	1	06/25/2020 17:40	WG1498739
Boron,Dissolved	0.620		0.0254	0.200	1	06/26/2020 08:40	WG1498719

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00391		0.000735	0.00200	1	06/26/2020 20:52	WG1498751
Arsenic,Dissolved	0.00372		0.000735	0.00200	1	06/26/2020 17:19	WG1498727
Barium	0.00943	J	0.00778	0.0200	1	06/26/2020 20:52	WG1498751
Barium,Dissolved	0.00839	J	0.00778	0.0200	1	06/26/2020 17:19	WG1498727
Cadmium	U		0.000478	0.00100	1	06/26/2020 20:52	WG1498751
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 17:19	WG1498727
Calcium	630		0.480	1.00	1	06/26/2020 20:52	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 20:52	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:19	WG1498727
Cobalt	U		0.000477	0.00200	1	06/26/2020 20:52	WG1498751
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 17:19	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 20:52	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:19	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 20:52	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:19	WG1498727
Manganese	U		0.00132	0.00500	1	06/26/2020 20:52	WG1498751
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 17:19	WG1498727
Nickel	0.00111	J	0.000952	0.00200	1	06/26/2020 20:52	WG1498751
Nickel,Dissolved	0.00119	J	0.000952	0.00200	1	06/26/2020 17:19	WG1498727

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Potassium	3.51		0.534	2.00	1	06/26/2020 20:52	WG1498751
Selenium	0.0332		0.000657	0.00200	1	06/26/2020 20:52	WG1498751
Selenium,Dissolved	0.0300		0.000657	0.00200	1	06/26/2020 17:19	WG1498727
Sodium	510		0.630	2.00	1	06/26/2020 20:52	WG1498751
Uranium	0.0698		0.00754	0.0200	1	06/26/2020 20:52	WG1498751
Uranium,Dissolved	0.0673		0.00754	0.0200	1	06/26/2020 17:19	WG1498727
Vanadium	0.0251		0.000986	0.00500	1	06/26/2020 20:52	WG1498751
Vanadium,Dissolved	0.0247		0.000986	0.00500	1	06/26/2020 17:19	WG1498727

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 22:19	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 22:19	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 22:19	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 22:19	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 22:19	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 22:19	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 22:19	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 22:19	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 22:19	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 22:19	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 22:19	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 22:19	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 22:19	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 22:19	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 22:19	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 22:19	WG1497262
1,2-Dichloroethane	0.000171	J	0.0000819	0.00100	1	06/23/2020 22:19	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 22:19	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 22:19	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 22:19	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 22:19	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 22:19	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 22:19	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 22:19	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 22:19	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 22:19	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 22:19	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 22:19	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 22:19	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 22:19	WG1497262
Methyl tert-butyl ether	0.00152		0.000101	0.00100	1	06/28/2020 08:55	WG1500250
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 22:19	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 22:19	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 22:19	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 22:19	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 22:19	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 22:19	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 22:19	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 22:19	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 22:19	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 22:19	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 22:19	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 22:19	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 22:19	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
o-Xylene	U		0.000174	0.00100	1	06/23/2020 22:19	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 22:19	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 22:19	WG1497262
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 22:19*	WG1497262
(S) Toluene-d8	*111*			*80.0-120*		*06/28/2020 08:55*	WG1500250
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 22:19*	WG1497262
(S) 4-Bromofluorobenzene	*92.4*			*77.0-126*		*06/28/2020 08:55*	WG1500250
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/23/2020 22:19*	WG1497262
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*06/28/2020 08:55*	WG1500250

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0323	J	0.0247	0.100	1	06/26/2020 07:10	WG1497084
(S) o-Terphenyl	*62.6*			*31.0-160*		*06/26/2020 07:10*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3040		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.05		0.0500	0.100	1	06/29/2020 22:34	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	354		37.9	100	100	06/26/2020 04:15	WG1498060
Fluoride	1.89		0.0640	0.150	1	06/26/2020 03:58	WG1498060
Sulfate	1700		59.4	500	100	06/26/2020 04:15	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00280		0.000735	0.00200	1	06/26/2020 20:56	WG1498751
Arsenic,Dissolved	0.00243		0.000735	0.00200	1	06/26/2020 17:34	WG1498727
Barium	0.0155	J	0.00778	0.0200	1	06/26/2020 20:56	WG1498751
Barium,Dissolved	0.0159	J	0.00778	0.0200	1	06/26/2020 17:34	WG1498727
Calcium	420		0.480	1.00	1	06/26/2020 20:56	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 20:56	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:34	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 20:56	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:34	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 20:56	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:34	WG1498727
Manganese	U		0.00132	0.00500	1	06/26/2020 20:56	WG1498751
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 17:34	WG1498727
Potassium	5.27		0.534	2.00	1	06/26/2020 20:56	WG1498751
Selenium	0.0317		0.000657	0.00200	1	06/26/2020 20:56	WG1498751
Selenium,Dissolved	0.0319		0.000657	0.00200	1	06/26/2020 17:34	WG1498727
Sodium	190		0.630	2.00	1	06/26/2020 20:56	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 22:38	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 22:38	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 22:38	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 22:38	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 22:38	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 22:38	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 22:38	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 22:38	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 22:38	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 22:38	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 22:38	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 22:38	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 22:38	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 22:38	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 22:38	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 22:38	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 22:38	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 22:38	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 22:38	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 22:38	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 22:38	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 22:38	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 22:38	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 22:38	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 22:38	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 22:38	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 22:38	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 22:38	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 22:38	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 22:38	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 22:38	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 22:38	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 22:38	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 22:38	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 22:38	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 22:38	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 22:38	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 22:38	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 22:38	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 22:38	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 22:38	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 22:38	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 22:38	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 22:38	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 22:38	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 22:38	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 22:38	WG1497262
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 22:38*	WG1497262
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 22:38*	WG1497262
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/23/2020 22:38*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0250	J	0.0247	0.100	1	06/26/2020 07:36	WG1497084
(S) o-Terphenyl	*62.1*			*31.0-160*		*06/26/2020 07:36*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1820		7.05	25.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.78		0.0500	0.100	1	06/29/2020 21:26	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	56.7		0.379	1.00	1	06/26/2020 05:06	WG1498060
Fluoride	1.38		0.0640	0.150	1	06/26/2020 05:06	WG1498060
Sulfate	1070		11.9	100	20	06/26/2020 05:23	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00228		0.000735	0.00200	1	06/26/2020 21:00	WG1498751
Arsenic,Dissolved	0.00219		0.000735	0.00200	1	06/26/2020 17:37	WG1498727
Barium	0.0166	J	0.00778	0.0200	1	06/26/2020 21:00	WG1498751
Barium,Dissolved	0.0157	J	0.00778	0.0200	1	06/26/2020 17:37	WG1498727
Calcium	301		0.480	1.00	1	06/26/2020 21:00	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 21:00	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:37	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 21:00	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:37	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 21:00	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:37	WG1498727
Manganese	0.00890		0.00132	0.00500	1	06/26/2020 21:00	WG1498751
Manganese,Dissolved	0.00198	J	0.00132	0.00500	1	06/26/2020 17:37	WG1498727
Potassium	7.62		0.534	2.00	1	06/26/2020 21:00	WG1498751
Selenium	0.0169		0.000657	0.00200	1	06/26/2020 21:00	WG1498751
Selenium,Dissolved	0.0154		0.000657	0.00200	1	06/26/2020 17:37	WG1498727
Sodium	91.0		0.630	2.00	1	06/26/2020 21:00	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 22:57	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 22:57	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 22:57	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 22:57	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 22:57	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 22:57	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 22:57	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 22:57	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 22:57	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 22:57	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 22:57	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 22:57	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 22:57	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 22:57	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 22:57	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 22:57	WG1497262

Received by OCD: 6/23/2021 4:05:29 PM

MW-27
Collected date/time: 06/17/20 13:25
L1231155

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 22:57	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 22:57	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 22:57	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 22:57	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 22:57	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 22:57	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 22:57	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 22:57	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 22:57	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 22:57	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 22:57	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 22:57	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 22:57	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 22:57	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 22:57	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 22:57	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 22:57	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 22:57	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 22:57	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 22:57	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 22:57	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 22:57	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 22:57	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 22:57	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 22:57	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 22:57	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 22:57	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 22:57	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 22:57	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 22:57	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 22:57	WG1497262
(S) Toluene-d8	*106*			*80.0-120*		*06/23/2020 22:57*	WG1497262
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 22:57*	WG1497262
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 22:57*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 08:02	WG1497084
(S) o-Terphenyl	*60.5*			*31.0-160*		*06/26/2020 08:02*	WG1497084

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2810		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.151		0.0500	0.100	1	06/29/2020 21:30	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	162		37.9	100	100	06/26/2020 05:57	WG1498060
Fluoride	2.92		0.0640	0.150	1	06/26/2020 05:40	WG1498060
Sulfate	1810		59.4	500	100	06/26/2020 05:57	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00857		0.000735	0.00200	1	06/26/2020 21:03	WG1498751
Arsenic,Dissolved	0.00880		0.000735	0.00200	1	06/26/2020 17:41	WG1498727
Barium	0.0133	J	0.00778	0.0200	1	06/26/2020 21:03	WG1498751
Barium,Dissolved	0.0117	J	0.00778	0.0200	1	06/26/2020 17:41	WG1498727
Calcium	480		0.480	1.00	1	06/26/2020 21:03	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 21:03	WG1498751
Chromium,Dissolved	0.00153	J	0.00149	0.00200	1	06/26/2020 17:41	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 21:03	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:41	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 21:03	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:41	WG1498727
Manganese	0.579		0.00132	0.00500	1	06/26/2020 21:03	WG1498751
Manganese,Dissolved	0.567		0.00132	0.00500	1	06/26/2020 17:41	WG1498727
Potassium	8.84		0.534	2.00	1	06/26/2020 21:03	WG1498751
Selenium	0.00476		0.000657	0.00200	1	06/26/2020 21:03	WG1498751
Selenium,Dissolved	0.00409		0.000657	0.00200	1	06/26/2020 17:41	WG1498727
Sodium	148		0.630	2.00	1	06/26/2020 21:03	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 23:16	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 23:16	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 23:16	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 23:16	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 23:16	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 23:16	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 23:16	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 23:16	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 23:16	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 23:16	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 23:16	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 23:16	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 23:16	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 23:16	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 23:16	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 23:16	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 23:16	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 23:16	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 23:16	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 23:16	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 23:16	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 23:16	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 23:16	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 23:16	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 23:16	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 23:16	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 23:16	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 23:16	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 23:16	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 23:16	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 23:16	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 23:16	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 23:16	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 23:16	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 23:16	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 23:16	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 23:16	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 23:16	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 23:16	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 23:16	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 23:16	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 23:16	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 23:16	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 23:16	WG1497262
o-Xylene	0.000664	J	0.000174	0.00100	1	06/23/2020 23:16	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 23:16	WG1497262
Xylenes, Total	0.000664	J	0.000174	0.00300	1	06/23/2020 23:16	WG1497262
(S) Toluene-d8	*109*			*80.0-120*		*06/23/2020 23:16*	WG1497262
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 23:16*	WG1497262
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/23/2020 23:16*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.218		0.0247	0.100	1	06/27/2020 01:50	WG1497084
(S) o-Terphenyl	*72.1*			*31.0-160*		*06/27/2020 01:50*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4390		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.331		0.0500	0.100	1	06/29/2020 21:31	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	446		37.9	100	100	06/26/2020 06:30	WG1498060
Fluoride	2.69		0.0640	0.150	1	06/26/2020 06:14	WG1498060
Sulfate	2610		59.4	500	100	06/26/2020 06:30	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00508		0.000735	0.00200	1	06/26/2020 21:07	WG1498751
Arsenic,Dissolved	0.00518		0.000735	0.00200	1	06/26/2020 17:44	WG1498727
Barium	0.0161	J	0.00778	0.0200	1	06/26/2020 21:07	WG1498751
Barium,Dissolved	0.0137	J	0.00778	0.0200	1	06/26/2020 17:44	WG1498727
Calcium	500		0.480	1.00	1	06/26/2020 21:07	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 21:07	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:44	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 21:07	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:44	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 21:07	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:44	WG1498727
Manganese	0.116		0.00132	0.00500	1	06/26/2020 21:07	WG1498751
Manganese,Dissolved	0.0223		0.00132	0.00500	1	06/26/2020 17:44	WG1498727
Potassium	8.82		0.534	2.00	1	06/26/2020 21:07	WG1498751
Selenium	0.0135		0.000657	0.00200	1	06/26/2020 21:07	WG1498751
Selenium,Dissolved	0.0120		0.000657	0.00200	1	06/26/2020 17:44	WG1498727
Sodium	424		0.630	2.00	1	06/26/2020 21:07	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 23:35	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 23:35	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 23:35	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 23:35	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 23:35	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 23:35	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 23:35	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 23:35	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 23:35	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 23:35	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 23:35	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 23:35	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 23:35	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 23:35	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 23:35	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 23:35	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 23:35	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 23:35	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 23:35	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 23:35	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 23:35	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 23:35	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 23:35	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 23:35	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 23:35	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 23:35	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 23:35	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 23:35	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 23:35	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 23:35	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 23:35	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 23:35	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 23:35	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 23:35	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 23:35	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 23:35	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 23:35	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 23:35	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 23:35	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 23:35	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 23:35	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 23:35	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 23:35	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 23:35	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 23:35	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 23:35	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 23:35	WG1497262
(S) Toluene-d8	*109*			*80.0-120*		*06/23/2020 23:35*	WG1497262
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*06/23/2020 23:35*	WG1497262
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/23/2020 23:35*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.120		0.0247	0.100	1	06/27/2020 02:16	WG1497084
(S) o-Terphenyl	*70.5*			*31.0-160*		*06/27/2020 02:16*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5990		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.69		0.0500	0.100	1	06/29/2020 21:32	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	671		37.9	100	100	06/26/2020 07:04	WG1498060
Fluoride	2.06		0.0640	0.150	1	06/26/2020 06:47	WG1498060
Sulfate	3660		59.4	500	100	06/26/2020 07:04	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00335		0.000735	0.00200	1	06/26/2020 21:11	WG1498751
Arsenic,Dissolved	0.00316		0.000735	0.00200	1	06/26/2020 17:48	WG1498727
Barium	0.00884	J	0.00778	0.0200	1	06/26/2020 21:11	WG1498751
Barium,Dissolved	0.00792	J	0.00778	0.0200	1	06/26/2020 17:48	WG1498727
Calcium	585		0.480	1.00	1	06/26/2020 21:11	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 21:11	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:48	WG1498727
Iron	U		0.0489	0.100	1	06/26/2020 21:11	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:48	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 21:11	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:48	WG1498727
Manganese	0.295		0.00132	0.00500	1	06/26/2020 21:11	WG1498751
Manganese,Dissolved	0.255		0.00132	0.00500	1	06/26/2020 17:48	WG1498727
Potassium	5.18		0.534	2.00	1	06/26/2020 21:11	WG1498751
Selenium	0.0196		0.000657	0.00200	1	06/26/2020 21:11	WG1498751
Selenium,Dissolved	0.0171		0.000657	0.00200	1	06/26/2020 17:48	WG1498727
Sodium	530		0.630	2.00	1	06/26/2020 21:11	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 23:54	WG1497262
Benzene	U		0.0000941	0.00100	1	06/23/2020 23:54	WG1497262
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 23:54	WG1497262
Bromoform	U		0.000129	0.00100	1	06/23/2020 23:54	WG1497262
Bromomethane	U		0.000605	0.00500	1	06/23/2020 23:54	WG1497262
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 23:54	WG1497262
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 23:54	WG1497262
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 23:54	WG1497262
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 23:54	WG1497262
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 23:54	WG1497262
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 23:54	WG1497262
Chloroethane	U		0.000192	0.00500	1	06/23/2020 23:54	WG1497262
Chloroform	U		0.000111	0.00500	1	06/23/2020 23:54	WG1497262
Chloromethane	U		0.000960	0.00250	1	06/23/2020 23:54	WG1497262
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 23:54	WG1497262
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 23:54	WG1497262

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 23:54	WG1497262
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 23:54	WG1497262
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 23:54	WG1497262
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 23:54	WG1497262
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 23:54	WG1497262
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 23:54	WG1497262
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 23:54	WG1497262
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 23:54	WG1497262
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 23:54	WG1497262
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 23:54	WG1497262
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 23:54	WG1497262
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 23:54	WG1497262
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 23:54	WG1497262
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 23:54	WG1497262
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 23:54	WG1497262
Naphthalene	U	J4	0.00100	0.00500	1	06/23/2020 23:54	WG1497262
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 23:54	WG1497262
Styrene	U		0.000118	0.00100	1	06/23/2020 23:54	WG1497262
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 23:54	WG1497262
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 23:54	WG1497262
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 23:54	WG1497262
Toluene	U		0.000278	0.00100	1	06/23/2020 23:54	WG1497262
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 23:54	WG1497262
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 23:54	WG1497262
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 23:54	WG1497262
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 23:54	WG1497262
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 23:54	WG1497262
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 23:54	WG1497262
o-Xylene	U		0.000174	0.00100	1	06/23/2020 23:54	WG1497262
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 23:54	WG1497262
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 23:54	WG1497262
(S) Toluene-d8	*107*			*80.0-120*		*06/23/2020 23:54*	WG1497262
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/23/2020 23:54*	WG1497262
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/23/2020 23:54*	WG1497262

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0276	J	0.0247	0.100	1	06/27/2020 02:41	WG1497084
(S) o-Terphenyl	*68.9*			*31.0-160*		*06/27/2020 02:41*	WG1497084

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3930		14.1	50.0	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0922	J	0.0500	0.100	1	06/29/2020 21:34	WG1499268

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	204		37.9	100	100	06/26/2020 07:38	WG1498060
Fluoride	1.43		0.0640	0.150	1	06/26/2020 07:21	WG1498060
Sulfate	2550		59.4	500	100	06/26/2020 07:38	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00285		0.000735	0.00200	1	06/26/2020 21:14	WG1498751
Arsenic,Dissolved	0.00266		0.000735	0.00200	1	06/26/2020 17:51	WG1498727
Barium	0.0128	J	0.00778	0.0200	1	06/26/2020 21:14	WG1498751
Barium,Dissolved	0.0102	J	0.00778	0.0200	1	06/26/2020 17:51	WG1498727
Calcium	607		0.480	1.00	1	06/26/2020 21:14	WG1498751
Chromium	U		0.00149	0.00200	1	06/26/2020 21:14	WG1498751
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 17:51	WG1498727
Iron	0.0754	J	0.0489	0.100	1	06/26/2020 21:14	WG1498751
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 17:51	WG1498727
Lead	U		0.00249	0.00500	1	06/26/2020 21:14	WG1498751
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 17:51	WG1498727
Manganese	0.0688		0.00132	0.00500	1	06/26/2020 21:14	WG1498751
Manganese,Dissolved	0.0447		0.00132	0.00500	1	06/26/2020 17:51	WG1498727
Potassium	0.731	J	0.534	2.00	1	06/26/2020 21:14	WG1498751
Selenium	0.00120	J	0.000657	0.00200	1	06/26/2020 21:14	WG1498751
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 17:51	WG1498727
Sodium	172		0.630	2.00	1	06/26/2020 21:14	WG1498751

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:32	WG1497267
Benzene	U		0.0000941	0.00100	1	06/23/2020 02:32	WG1497267
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:32	WG1497267
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:32	WG1497267
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:32	WG1497267
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 02:32	WG1497267
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 02:32	WG1497267
Carbon disulfide	0.000120	J	0.0000962	0.00100	1	06/23/2020 02:32	WG1497267
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 02:32	WG1497267
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:32	WG1497267
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:32	WG1497267
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:32	WG1497267
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:32	WG1497267
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:32	WG1497267
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:32	WG1497267
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:32	WG1497267

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:32	WG1497267
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:32	WG1497267
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:32	WG1497267
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:32	WG1497267
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:32	WG1497267
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:32	WG1497267
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:32	WG1497267
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 02:32	WG1497267
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 02:32	WG1497267
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 02:32	WG1497267
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:32	WG1497267
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:32	WG1497267
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:32	WG1497267
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 02:32	WG1497267
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 02:32	WG1497267
Naphthalene	U		0.00100	0.00500	1	06/23/2020 02:32	WG1497267
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 02:32	WG1497267
Styrene	U		0.000118	0.00100	1	06/23/2020 02:32	WG1497267
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:32	WG1497267
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:32	WG1497267
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:32	WG1497267
Toluene	U		0.000278	0.00100	1	06/23/2020 02:32	WG1497267
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:32	WG1497267
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:32	WG1497267
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:32	WG1497267
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 02:32	WG1497267
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 02:32	WG1497267
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:32	WG1497267
o-Xylene	U		0.000174	0.00100	1	06/23/2020 02:32	WG1497267
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 02:32	WG1497267
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 02:32	WG1497267
(S) Toluene-d8	*113*			*80.0-120*		*06/23/2020 02:32*	WG1497267
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*06/23/2020 02:32*	WG1497267
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*06/23/2020 02:32*	WG1497267

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0408	J	0.0247	0.100	1	06/27/2020 03:07	WG1497084
(S) o-Terphenyl	*66.8*			*31.0-160*		*06/27/2020 03:07*	WG1497084

Received by OCD: 6/23/2021 4:05:29 PM

TRIP BLANK-TMD-01
Collected date/time: 06/17/20 00:00

SAMPLE RESULTS - 13

L1231155

ONE LAB. NATIONWIDE.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 02:12	WG1497267
Benzene	U		0.0000941	0.00100	1	06/23/2020 02:12	WG1497267
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 02:12	WG1497267
Bromoform	U		0.000129	0.00100	1	06/23/2020 02:12	WG1497267
Bromomethane	U		0.000605	0.00500	1	06/23/2020 02:12	WG1497267
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 02:12	WG1497267
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 02:12	WG1497267
Carbon disulfide	0.000123	J	0.0000962	0.00100	1	06/23/2020 02:12	WG1497267
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 02:12	WG1497267
Chlorobenzene	U		0.000116	0.00100	1	06/23/2020 02:12	WG1497267
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 02:12	WG1497267
Chloroethane	U		0.000192	0.00500	1	06/23/2020 02:12	WG1497267
Chloroform	U		0.000111	0.00500	1	06/23/2020 02:12	WG1497267
Chloromethane	U		0.000960	0.00250	1	06/23/2020 02:12	WG1497267
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 02:12	WG1497267
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 02:12	WG1497267
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 02:12	WG1497267
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 02:12	WG1497267
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 02:12	WG1497267
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 02:12	WG1497267
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 02:12	WG1497267
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 02:12	WG1497267
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 02:12	WG1497267
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 02:12	WG1497267
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 02:12	WG1497267
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 02:12	WG1497267
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 02:12	WG1497267
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 02:12	WG1497267
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 02:12	WG1497267
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 02:12	WG1497267
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 02:12	WG1497267
Naphthalene	U		0.00100	0.00500	1	06/23/2020 02:12	WG1497267
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 02:12	WG1497267
Styrene	U		0.000118	0.00100	1	06/23/2020 02:12	WG1497267
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 02:12	WG1497267
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 02:12	WG1497267
Tetrachloroethene	U		0.000300	0.00100	1	06/23/2020 02:12	WG1497267
Toluene	U		0.000278	0.00100	1	06/23/2020 02:12	WG1497267
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 02:12	WG1497267
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 02:12	WG1497267
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 02:12	WG1497267
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 02:12	WG1497267
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 02:12	WG1497267
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 02:12	WG1497267
o-Xylene	U		0.000174	0.00100	1	06/23/2020 02:12	WG1497267
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 02:12	WG1497267
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 02:12	WG1497267
(S) Toluene-d8	*111*			*80.0-120*		*06/23/2020 02:12*	WG1497267
(S) 4-Bromofluorobenzene	*96.8*			*77.0-126*		*06/23/2020 02:12*	WG1497267
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 02:12*	WG1497267

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3543550-1 06/25/20 00:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231153-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-06 06/25/20 00:47 • (DUP) R3543550-3 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1270	1250	1	1.58		5

L1231207-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-03 06/25/20 00:47 • (DUP) R3543550-4 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6070	6120	1	0.820		5

Laboratory Control Sample (LCS)

(LCS) R3543550-2 06/25/20 00:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8850	101	85.0-115	

Method Blank (MB)

(MB) R3544487-1 06/29/20 21:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231158-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1231158-08 06/29/20 22:38 • (DUP) R3544487-6 06/29/20 22:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	3.88	3.87	1	0.258		20

L1231153-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-09 06/29/20 23:05 • (DUP) R3544487-7 06/29/20 23:07

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544487-2 06/29/20 21:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.82	95.5	90.0-110	

L1231155-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231155-08 06/29/20 21:26 • (MS) R3544487-3 06/29/20 21:27 • (MSD) R3544487-4 06/29/20 21:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.78	4.21	4.32	97.2	102	1	90.0-110			2.58	20

L1231155-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231155-12 06/29/20 21:34 • (MS) R3544487-5 06/29/20 21:39

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.0922	2.55	98.3	1	90.0-110	

Method Blank (MB)

(MB) R3543733-1 06/27/20 15:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1231161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-02 06/27/20 16:04 • (DUP) R3543733-5 06/27/20 16:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1231161-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-10 06/27/20 16:17 • (DUP) R3543733-8 06/27/20 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543733-2 06/27/20 15:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.102	102	90.0-110	

L1231161-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-01 06/27/20 16:01 • (MS) R3543733-3 06/27/20 16:02 • (MSD) R3543733-4 06/27/20 16:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0112	0.0856	0.0979	74.4	86.7	1	75.0-125	J6		13.4	20

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/27/20 16:09 • (MS) R3543733-6 06/27/20 16:12 • (MSD) R3543733-7 06/27/20 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0846	0.191	0.193	106	108	1	75.0-125			1.04	20

Method Blank (MB)

(MB) R3543569-1 06/25/20 21:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1231155-01 06/25/20 22:48 • (DUP) R3543569-3 06/25/20 23:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.31	1.32	1	1.08		15

L1231155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1231155-01 06/25/20 23:22 • (DUP) R3543569-4 06/25/20 23:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	976	971	20	0.433		15
Sulfate	1450	1430	20	1.18		15

L1231207-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-28 06/26/20 16:51 • (DUP) R3543569-9 06/26/20 17:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3543569-2 06/25/20 21:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.1	100	80.0-120	
Fluoride	8.00	7.94	99.2	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1231155-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231155-02 06/25/20 23:55 • (MS) R3543569-5 06/26/20 00:19 • (MSD) R3543569-6 06/26/20 00:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	367	399	399	63.8	64.6	1	80.0-120	E V	E V	0.0947	15
Fluoride	5.00	2.26	6.63	6.67	87.4	88.3	1	80.0-120			0.666	15
Sulfate	50.0	2530	2480	2480	0.000	0.000	1	80.0-120	E V	E V	0.00345	15

L1231207-27 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231207-27 06/26/20 12:26 • (MS) R3543569-7 06/26/20 12:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	1260	1250	0.000	1	80.0-120	E V
Fluoride	5.00	2.52	7.24	94.4	1	80.0-120	
Sulfate	50.0	1980	1950	0.000	1	80.0-120	E V

Method Blank (MB)

(MB) R3541985-1 06/23/20 13:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3541985-2 06/23/20 13:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00298	99.3	80.0-120	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/23/20 13:20 • (MS) R3541985-3 06/23/20 13:22 • (MSD) R3541985-4 06/23/20 13:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00196	0.00209	65.3	69.7	1	75.0-125	J6	J6	6.42	20

Method Blank (MB)

(MB) R3542432-1 06/24/20 10:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542432-2 06/24/20 11:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00292	97.3	80.0-120	

L1231593-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231593-03 06/24/20 11:53 • (MS) R3542432-3 06/24/20 11:55 • (MSD) R3542432-4 06/24/20 11:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00295	0.00295	98.3	98.3	1	75.0-125			0.000	20

Method Blank (MB)

(MB) R3543383-1 06/26/20 07:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543383-2 06/26/20 07:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.990	99.0	80.0-120	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/26/20 07:57 • (MS) R3543383-4 06/26/20 08:03 • (MSD) R3543383-5 06/26/20 08:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	0.163	1.14	1.17	97.5	101	1	75.0-125			3.09	20

Method Blank (MB)

(MB) R3543152-5 06/25/20 23:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543152-1 06/25/20 16:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	1.02	102	80.0-120	

L1231139-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231139-02 06/25/20 16:51 • (MS) R3543152-3 06/25/20 16:56 • (MSD) R3543152-4 06/25/20 16:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.209	1.24	1.22	103	101	1	75.0-125			1.40	20

Method Blank (MB)

(MB) R3543558-1 06/26/20 16:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Nickel,Dissolved	U		0.000952	0.00200
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543558-2 06/26/20 16:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0485	97.1	80.0-120	
Barium,Dissolved	0.0500	0.0501	100	80.0-120	
Cadmium,Dissolved	0.0500	0.0536	107	80.0-120	
Chromium,Dissolved	0.0500	0.0507	101	80.0-120	
Cobalt,Dissolved	0.0500	0.0512	102	80.0-120	
Iron,Dissolved	5.00	5.20	104	80.0-120	
Lead,Dissolved	0.0500	0.0496	99.2	80.0-120	
Manganese,Dissolved	0.0500	0.0496	99.2	80.0-120	
Nickel,Dissolved	0.0500	0.0511	102	80.0-120	
Selenium,Dissolved	0.0500	0.0541	108	80.0-120	
Uranium,Dissolved	0.0500	0.0504	101	80.0-120	
Vanadium,Dissolved	0.0500	0.0499	99.9	80.0-120	

L1231153-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231153-04 06/26/20 16:08 • (MS) R3543558-4 06/26/20 16:15 • (MSD) R3543558-5 06/26/20 16:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0273	0.0779	0.0797	101	105	1	75.0-125			2.26	20
Barium,Dissolved	0.0500	0.0214	0.0727	0.0728	103	103	1	75.0-125			0.205	20
Cadmium,Dissolved	0.0500	U	0.0551	0.0559	110	112	1	75.0-125			1.46	20

L1231153-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231153-04 06/26/20 16:08 • (MS) R3543558-4 06/26/20 16:15 • (MSD) R3543558-5 06/26/20 16:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chromium,Dissolved	0.0500	U	0.0510	0.0528	102	106	1	75.0-125			3.52	20
Cobalt,Dissolved	0.0500	0.00143	0.0518	0.0534	101	104	1	75.0-125			3.09	20
Iron,Dissolved	5.00	0.787	5.93	6.04	103	105	1	75.0-125			1.95	20
Lead,Dissolved	0.0500	U	0.0503	0.0520	101	104	1	75.0-125			3.39	20
Manganese,Dissolved	0.0500	0.905	0.912	0.936	13.6	61.4	1	75.0-125	V	V	2.59	20
Nickel,Dissolved	0.0500	0.00318	0.0537	0.0545	101	103	1	75.0-125			1.42	20
Selenium,Dissolved	0.0500	U	0.0537	0.0527	107	105	1	75.0-125			1.98	20
Uranium,Dissolved	0.0500	U	0.0545	0.0565	109	113	1	75.0-125			3.55	20
Vanadium,Dissolved	0.0500	U	0.0513	0.0529	103	106	1	75.0-125			3.14	20

Method Blank (MB)

(MB) R3543559-1 06/26/20 13:55

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	0.00152	J	0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3543559-6 06/26/20 18:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel	U		0.000952	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543559-2 06/26/20 13:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0534	107	80.0-120	
Barium	0.0500	0.0501	100	80.0-120	
Cadmium	0.0500	0.0542	108	80.0-120	
Calcium	5.00	5.08	102	80.0-120	
Chromium	0.0500	0.0550	110	80.0-120	
Cobalt	0.0500	0.0559	112	80.0-120	
Iron	5.00	5.46	109	80.0-120	
Lead	0.0500	0.0508	102	80.0-120	
Manganese	0.0500	0.0547	109	80.0-120	
Potassium	5.00	5.00	100	80.0-120	
Selenium	0.0500	0.0579	116	80.0-120	
Sodium	5.00	5.19	104	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3543559-2 06/26/20 13:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	0.0500	0.0507	101	80.0-120	
Vanadium	0.0500	0.0546	109	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3543559-7 06/26/20 18:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel	0.0500	0.0561	112	80.0-120	

L1231154-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231154-08 06/26/20 14:02 • (MS) R3543559-4 06/26/20 14:10 • (MSD) R3543559-5 06/26/20 14:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.000759	0.0514	0.0498	101	98.1	1	75.0-125			3.14	20
Barium	0.0500	0.0283	0.0793	0.0793	102	102	1	75.0-125			0.0394	20
Cadmium	0.0500	U	0.0550	0.0558	110	112	1	75.0-125			1.36	20
Calcium	5.00	30.1	35.2	35.4	101	106	1	75.0-125			0.636	20
Chromium	0.0500	U	0.0531	0.0529	106	106	1	75.0-125			0.285	20
Cobalt	0.0500	0.00680	0.0592	0.0585	105	103	1	75.0-125			1.28	20
Potassium	5.00	1.76	6.77	6.85	100	102	1	75.0-125			1.13	20
Iron	5.00	3.16	8.42	8.24	105	102	1	75.0-125			2.10	20
Lead	0.0500	U	0.0514	0.0515	103	103	1	75.0-125			0.0413	20
Manganese	0.0500	0.220	0.271	0.262	103	82.8	1	75.0-125			3.71	20
Selenium	0.0500	U	0.0581	0.0590	116	118	1	75.0-125			1.42	20
Sodium	5.00	221	227	227	127	123	1	75.0-125	V		0.0959	20
Uranium	0.0500	U	0.0534	0.0531	107	106	1	75.0-125			0.728	20
Vanadium	0.0500	U	0.0523	0.0516	105	103	1	75.0-125			1.34	20

L1231154-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231154-08 06/26/20 18:24 • (MS) R3543559-9 06/26/20 18:31 • (MSD) R3543559-10 06/26/20 18:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel	0.0500	0.0142	0.0632	0.0666	98.0	105	1	75.0-125			5.25	20

Method Blank (MB)

(MB) R3543307-2 06/25/20 16:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543307-1 06/25/20 15:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.71	104	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*99.4*	*78.0-120*	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/25/20 23:56 • (MS) R3543307-3 06/26/20 01:27 • (MSD) R3543307-4 06/26/20 01:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.229	5.86	5.18	102	90.0	1	10.0-160			12.3	22
(S) a,a,a-Trifluorotoluene(FID)					*100*	*98.4*		*78.0-120*				

Method Blank (MB)

(MB) R3543687-2 06/23/20 15:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000150	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	0.00516	J	0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	0.00158	J	0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543687-2 06/23/20 15:50

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543687-1 06/23/20 12:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0333	133	19.0-160	
Benzene	0.00500	0.00472	94.4	70.0-123	
Bromodichloromethane	0.00500	0.00452	90.4	75.0-120	
Bromoform	0.00500	0.00494	98.8	68.0-132	
Bromomethane	0.00500	0.00548	110	10.0-160	
n-Butylbenzene	0.00500	0.00433	86.6	73.0-125	
sec-Butylbenzene	0.00500	0.00419	83.8	75.0-125	
Carbon disulfide	0.00500	0.00435	87.0	61.0-128	
Carbon tetrachloride	0.00500	0.00384	76.8	68.0-126	
Chlorobenzene	0.00500	0.00477	95.4	80.0-121	
Chlorodibromomethane	0.00500	0.00475	95.0	77.0-125	
Chloroethane	0.00500	0.00452	90.4	47.0-150	
Chloroform	0.00500	0.00486	97.2	73.0-120	
Chloromethane	0.00500	0.00459	91.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00459	91.8	80.0-122	
1,1-Dichloroethane	0.00500	0.00422	84.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00490	98.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00463	92.6	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00457	91.4	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00481	96.2	73.0-120	
1,2-Dichloropropane	0.00500	0.00424	84.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00454	90.8	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00451	90.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543687-1 06/23/20 12:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00465	93.0	79.0-123	
2-Hexanone	0.0250	0.0245	98.0	67.0-149	
Isopropylbenzene	0.00500	0.00477	95.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00423	84.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0232	92.8	44.0-160	
Methylene Chloride	0.00500	0.00436	87.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0231	92.4	68.0-142	
Methyl tert-butyl ether	0.00500	0.00499	99.8	68.0-125	
Naphthalene	0.00500	0.00686	137	54.0-135	J4
n-Propylbenzene	0.00500	0.00423	84.6	77.0-124	
Styrene	0.00500	0.00446	89.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00456	91.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00432	86.4	65.0-130	
Tetrachloroethene	0.00500	0.00441	88.2	72.0-132	
Toluene	0.00500	0.00464	92.8	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00488	97.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00431	86.2	80.0-120	
Trichloroethene	0.00500	0.00463	92.6	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00418	83.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00463	92.6	76.0-122	
Vinyl chloride	0.00500	0.00442	88.4	67.0-131	
Xylenes, Total	0.0150	0.0139	92.7	79.0-123	
o-Xylene	0.00500	0.00485	97.0	80.0-122	
m&p-Xylenes	0.0100	0.00903	90.3	80.0-122	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3543542-1 06/23/20 00:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3543542-1 06/23/20 00:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*115*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543542-4 06/23/20 09:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0395	158	19.0-160	
Benzene	0.00500	0.00389	77.8	70.0-123	
Bromodichloromethane	0.00500	0.00460	92.0	75.0-120	
Bromoform	0.00500	0.00549	110	68.0-132	
Bromomethane	0.00500	0.00340	68.0	10.0-160	
n-Butylbenzene	0.00500	0.00382	76.4	73.0-125	
sec-Butylbenzene	0.00500	0.00457	91.4	75.0-125	
Carbon disulfide	0.00500	0.00386	77.2	61.0-128	
Carbon tetrachloride	0.00500	0.00512	102	68.0-126	
Chlorobenzene	0.00500	0.00530	106	80.0-121	
Chlorodibromomethane	0.00500	0.00478	95.6	77.0-125	
Chloroethane	0.00500	0.00402	80.4	47.0-150	
Chloroform	0.00500	0.00431	86.2	73.0-120	
Chloromethane	0.00500	0.00470	94.0	41.0-142	
1,2-Dibromoethane	0.00500	0.00570	114	80.0-122	
1,1-Dichloroethane	0.00500	0.00431	86.2	70.0-126	
1,2-Dichloroethane	0.00500	0.00383	76.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00513	103	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00520	104	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00464	92.8	73.0-120	
1,2-Dichloropropane	0.00500	0.00443	88.6	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00405	81.0	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00462	92.4	78.0-124	

Released to Imaging: 11/21/2023 10:16:55 AM

Laboratory Control Sample (LCS)

(LCS) R3543542-4 06/23/20 09:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00560	112	79.0-123	
2-Hexanone	0.0250	0.0280	112	67.0-149	
Isopropylbenzene	0.00500	0.00437	87.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00513	103	76.0-125	
2-Butanone (MEK)	0.0250	0.0236	94.4	44.0-160	
Methylene Chloride	0.00500	0.00364	72.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0242	96.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00399	79.8	68.0-125	
Naphthalene	0.00500	0.00485	97.0	54.0-135	
n-Propylbenzene	0.00500	0.00478	95.6	77.0-124	
Styrene	0.00500	0.00441	88.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00483	96.6	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00350	70.0	65.0-130	
Tetrachloroethene	0.00500	0.00575	115	72.0-132	
Toluene	0.00500	0.00442	88.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00383	76.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00492	98.4	80.0-120	
Trichloroethene	0.00500	0.00551	110	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00412	82.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00382	76.4	76.0-122	
Vinyl chloride	0.00500	0.00420	84.0	67.0-131	
Xylenes, Total	0.0150	0.0150	100	79.0-123	
o-Xylene	0.00500	0.00515	103	80.0-122	
m&p-Xylenes	0.0100	0.00982	98.2	80.0-122	
(S) Toluene-d8			*115*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*101*	*70.0-130*	

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/23/20 06:51 • (MS) R3543542-2 06/23/20 08:50 • (MSD) R3543542-3 06/23/20 09:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	U	0.0746	0.0810	298	324	1	10.0-160	J5	J5	8.23	35
Benzene	0.00500	0.000244	0.00494	0.00509	93.9	96.9	1	17.0-158			2.99	27
Bromodichloromethane	0.00500	U	0.00528	0.00524	106	105	1	31.0-150			0.760	27
Bromoform	0.00500	U	0.00610	0.00636	122	127	1	29.0-150			4.17	29
Bromomethane	0.00500	U	0.00433	0.00438	86.6	87.6	1	10.0-160			1.15	38
n-Butylbenzene	0.00500	U	0.00431	0.00456	86.2	91.2	1	31.0-150			5.64	30

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/23/20 06:51 • (MS) R3543542-2 06/23/20 08:50 • (MSD) R3543542-3 06/23/20 09:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.00500	0.00138	0.00687	0.00687	110	110	1	33.0-155			0.000	29
Carbon disulfide	0.00500	U	0.00495	0.00286	99.0	57.2	1	10.0-156		J3	53.5	28
Carbon tetrachloride	0.00500	U	0.00648	0.00677	130	135	1	23.0-159			4.38	28
Chlorobenzene	0.00500	U	0.00599	0.00644	120	129	1	33.0-152			7.24	27
Chlorodibromomethane	0.00500	U	0.00540	0.00568	108	114	1	37.0-149			5.05	27
Chloroethane	0.00500	U	0.00505	0.00508	101	102	1	10.0-160			0.592	30
Chloroform	0.00500	U	0.00489	0.00515	97.8	103	1	29.0-154			5.18	28
Chloromethane	0.00500	U	0.00612	0.00611	122	122	1	10.0-160			0.164	29
1,2-Dibromoethane	0.00500	U	0.00649	0.00674	130	135	1	34.0-147			3.78	27
1,1-Dichloroethane	0.00500	U	0.00523	0.00565	105	113	1	25.0-158			7.72	27
1,2-Dichloroethane	0.00500	U	0.00446	0.00461	89.2	92.2	1	29.0-151			3.31	27
1,1-Dichloroethene	0.00500	U	0.00648	0.00775	130	155	1	11.0-160			17.8	29
cis-1,2-Dichloroethene	0.00500	U	0.00625	0.00647	125	129	1	10.0-160			3.46	27
trans-1,2-Dichloroethene	0.00500	U	0.00537	0.00613	107	123	1	17.0-153			13.2	27
1,2-Dichloropropane	0.00500	U	0.00528	0.00552	106	110	1	30.0-156			4.44	27
cis-1,3-Dichloropropene	0.00500	U	0.00444	0.00463	88.8	92.6	1	34.0-149			4.19	28
trans-1,3-Dichloropropene	0.00500	U	0.00499	0.00530	99.8	106	1	32.0-149			6.03	28
Ethylbenzene	0.00500	U	0.00670	0.00716	134	143	1	30.0-155			6.64	27
2-Hexanone	0.0250	U	0.0312	0.0327	125	131	1	21.0-160			4.69	29
Isopropylbenzene	0.00500	0.00213	0.00710	0.00759	99.4	109	1	28.0-157			6.67	27
p-Isopropyltoluene	0.00500	U	0.00585	0.00623	117	125	1	30.0-154			6.29	29
2-Butanone (MEK)	0.0250	U	0.0254	0.0260	102	104	1	10.0-160			2.33	32
Methylene Chloride	0.00500	U	0.00436	0.00457	87.2	91.4	1	23.0-144			4.70	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0269	0.0277	108	111	1	29.0-160			2.93	29
Methyl tert-butyl ether	0.00500	U	0.00466	0.00470	93.2	94.0	1	28.0-150			0.855	29
Naphthalene	0.00500	U	0.00539	0.00578	108	116	1	12.0-156			6.98	35
n-Propylbenzene	0.00500	U	0.00562	0.00591	112	118	1	31.0-154			5.03	28
Styrene	0.00500	U	0.00520	0.00541	104	108	1	33.0-155			3.96	28
1,1,1,2-Tetrachloroethane	0.00500	U	0.00561	0.00590	112	118	1	36.0-151			5.04	29
1,1,2,2-Tetrachloroethane	0.00500	U	0.00413	0.00424	82.6	84.8	1	33.0-150			2.63	28
Tetrachloroethene	0.00500	U	0.00682	0.00742	136	148	1	10.0-160			8.43	27
Toluene	0.00500	U	0.00515	0.00545	103	109	1	26.0-154			5.66	28
1,1,1-Trichloroethane	0.00500	U	0.00487	0.00510	97.4	102	1	23.0-160			4.61	28
1,1,2-Trichloroethane	0.00500	U	0.00563	0.00602	113	120	1	35.0-147			6.70	27
Trichloroethene	0.00500	U	0.00664	0.00682	133	136	1	10.0-160			2.67	25
1,2,4-Trimethylbenzene	0.00500	U	0.00477	0.00499	95.4	99.8	1	26.0-154			4.51	27
1,3,5-Trimethylbenzene	0.00500	U	0.00428	0.00454	85.6	90.8	1	28.0-153			5.90	27
Vinyl chloride	0.00500	U	0.00575	0.00589	115	118	1	10.0-160			2.41	27
Xylenes, Total	0.0150	U	0.0175	0.0186	117	124	1	29.0-154			6.09	28
o-Xylene	0.00500	U	0.00602	0.00633	120	127	1	45.0-144			5.02	26

L1231158-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231158-17 06/23/20 06:51 • (MS) R3543542-2 06/23/20 08:50 • (MSD) R3543542-3 06/23/20 09:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
m&p-Xylenes	0.0100	U	0.0115	0.0123	115	123	1	43.0-146			6.72	26
(S) Toluene-d8					*113*	*116*		*80.0-120*				
(S) 4-Bromofluorobenzene					*101*	*105*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*101*	*102*		*70.0-130*				

Method Blank (MB)

(MB) R3543958-3 06/28/20 05:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543958-1 06/28/20 04:25 • (LCSD) R3543958-2 06/28/20 04:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00365	0.00374	73.0	74.8	68.0-125			2.44	20
(S) Toluene-d8				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*96.9*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*96.0*	*95.3*	*70.0-130*				

Method Blank (MB)

(MB) R3543222-1 06/26/20 01:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*72.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543222-2 06/26/20 02:24 • (LCSD) R3543222-3 06/26/20 02:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.36	1.41	90.7	94.0	50.0-150			3.61	20
(S) o-Terphenyl				*91.5*	*95.0*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

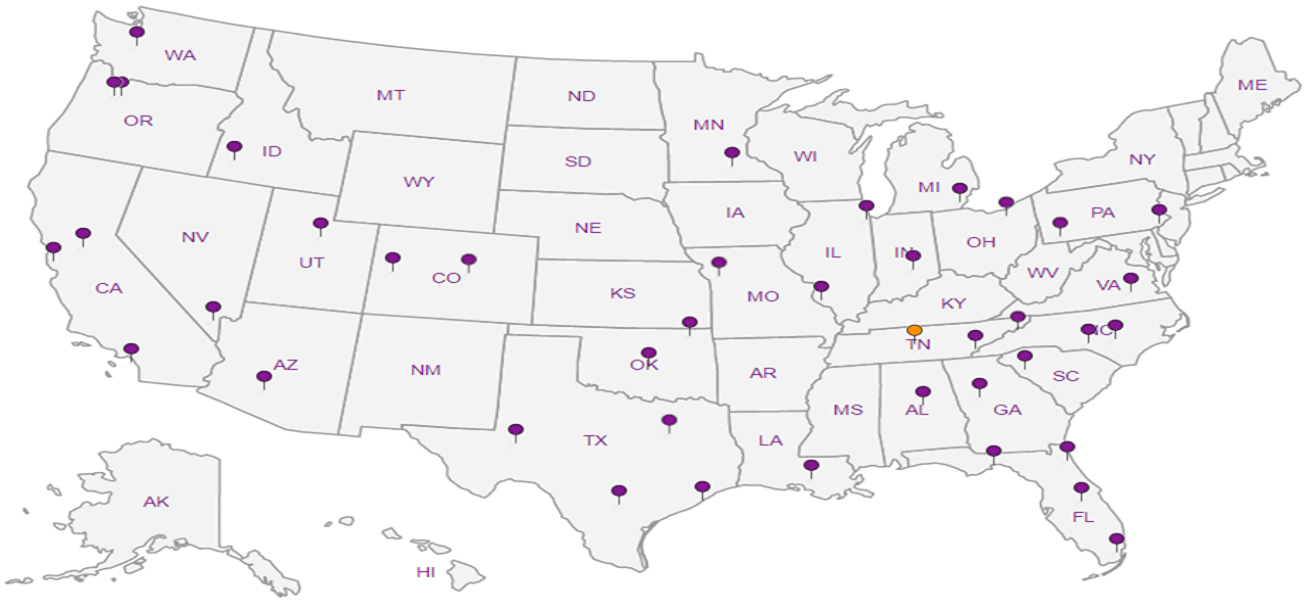
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
TRC Solutions - Austin, TX	330538.0000.0000	L1231155	06/30/20 13:53	59 of 62

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TMD (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 723155
J122

Acctnum: TRCATX
Template: T133687
Prelogin: P763444
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-25	Grab	GW		6/17/20	910	8	X	X		X	X	X						01
MW-20	Grab	GW		6/17/20	1235	8	X	X		X	X	X						02
NP-1	Grab	GW		6/17/20	940	5	X				X	X						03
MW-8	Grab	GW		6/17/20	1130	10	X	X	X	X	X	X						04
MW-21	Grab	GW		6/17/20	1035	10	X	X	X	X	X	X						05
MW-71	Grab	GW		6/17/20	1415	9	X	X			X	X	X	X				06
MW-68	Grab	GW		6/17/20	940	8	X	X		X	X	X						07
MW-27	Grab	GW		6/17/20	1325	8	X	X		X	X	X						08
MW-89	Grab	GW		6/17/20	1040	8	X	X		X	X	X						09
MW-16	Grab	GW		6/17/20	1135	8	X	X		X	X	X						10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.7 °C Bottles Received: 98
				5-1=4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **TMD Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-TMD**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **TMD (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 123155

Table #

Acctnum: TRCATX

Template: T133687

Prelogin: P763444

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-26	Grab	GW		6/17/20	1230	8	X	X		X	X	X						11
MW-46R	Grab	GW		6/17/20	1345	8	X	X		X	X	X						12
TRIP BLANK-TMD-01	Grab	GW		6/17/20	—	1	X											13

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles Arrive Intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeOH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.3 °C Bottles Received: 8
				.5.E.4
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/17/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF Ok

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Fed Ex Tracking #:	Corresponding temp	
1663 5756 9467	4.1 - 0.1 = 4.0	HM A7
1676 2755 8222	0.9 - .1 = 0.8	
1663 5756 9732	0.4 - .1 = 0.3	
9489	1.3 + .1 = 1.4	MP A3
1676 2755 8233	0.5 - .1 = 0.4	HM A7
1663 5756 9835	1.1 + .1 = 1.2	MP A3
9412	1.9 - .1 = 1.8	HM A7
9490	1.1 - .1 = 1.0	
1676 2755 8211	1.2 - .1 = 1.1	
1203 5745 6051	1.5 - .1 = 1.4	
1663 5756 1054	1.5 - .1 = 1.4	
1087	1.7 - .1 = 1.6	
1043	0.8 - .1 = 0.7	
1065	0.3 - .1 = 0.2	
1076	1.0 - .1 = 0.9	
9478	3.7 - .1 = 3.6	
9721	0.3 - .1 = 0.2	
9798	1.2 - .1 = 1.1	
4492 6230 1294	1.5 - .1 = 1.4	
1203 5785 6040	1.1 - .1 = 1.0	
1663 5756 9423	1.5 - .1 = 1.4	
No Tracking #	1.6 - .1 = 1.5	KI A7

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ANALYTICAL REPORT

February 02, 2021

Revised Report

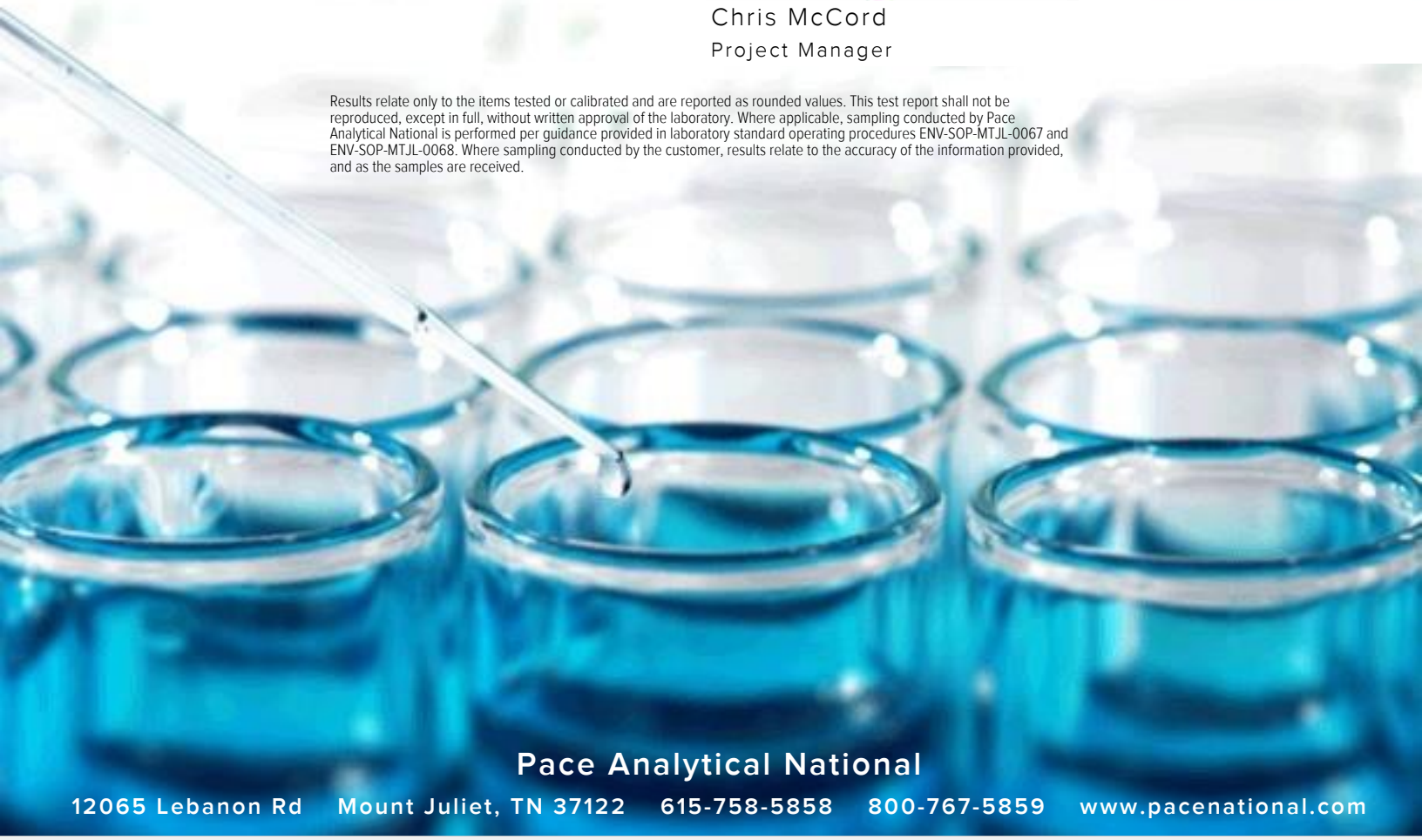
TRC Solutions - Austin, TX

Sample Delivery Group:	L1231207
Samples Received:	06/19/2020
Project Number:	330538.0000.0000
Description:	EP Spring 2020
Site:	EP NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-86 L1231207-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499271	20	06/30/20 17:40	06/30/20 17:40	BAM	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1499866	50	06/27/20 14:03	06/27/20 16:20	JER	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 10:56	06/27/20 10:56	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 11:13	06/27/20 11:13	GB	Mt. Juliet, TN
Mercury by Method 7470A	WG1496612	1	06/23/20 20:00	06/24/20 09:00	ABL	Mt. Juliet, TN
Mercury by Method 7470A	WG1496616	1	06/23/20 20:00	06/24/20 12:21	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498721	1	06/26/20 07:35	06/26/20 12:16	TRB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1498741	1	06/25/20 17:22	06/26/20 06:14	TRB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498730	1	06/26/20 05:09	06/26/20 13:14	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498730	1	06/26/20 05:09	06/26/20 14:47	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:03	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	50	06/27/20 17:52	06/27/20 17:52	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	20	06/23/20 20:27	06/23/20 20:27	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497084	20	06/23/20 15:44	06/27/20 04:50	KME	Mt. Juliet, TN

MW-84 L1231207-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:30
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499271	1	06/30/20 17:23	06/30/20 17:23	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	10	06/27/20 11:31	06/27/20 11:31	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 11:49	06/27/20 11:49	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:20	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:06	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 01:53	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	10	06/26/20 09:05	06/26/20 09:05	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	5	06/23/20 19:23	06/23/20 19:23	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	20	06/23/20 15:59	06/26/20 06:01	JDG	Mt. Juliet, TN

MW-122 L1231207-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498151	1	06/24/20 19:33	06/25/20 00:47	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499271	1	06/30/20 17:25	06/30/20 17:25	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 12:07	06/27/20 12:07	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 12:25	06/27/20 12:25	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:06	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 21:22	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 01:57	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	50	06/27/20 18:12	06/27/20 18:12	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	1	06/23/20 18:03	06/23/20 18:03	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 00:37	JDG	Mt. Juliet, TN

MW-81 L1231207-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499271	1	06/30/20 17:26	06/30/20 17:26	BAM	Mt. Juliet, TN

MW-81 L1231207-04 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 10:25 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 12:43	06/27/20 12:43	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 13:01	06/27/20 13:01	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:09	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 05:16	06/26/20 05:16	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	1	06/23/20 18:23	06/23/20 18:23	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 00:57	JDG	Mt. Juliet, TN

MW-80 L1231207-05 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 11:10 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499271	1	06/30/20 17:27	06/30/20 17:27	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 13:55	06/27/20 13:55	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 14:13	06/27/20 14:13	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:13	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:14	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	1	06/27/20 17:31	06/27/20 17:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	1	06/23/20 18:43	06/23/20 18:43	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 01:18	JDG	Mt. Juliet, TN

MW-79 L1231207-06 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 11:55 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:51	06/29/20 20:51	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	10	06/27/20 15:06	06/27/20 15:06	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 15:24	06/27/20 15:24	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:17	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:00	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 06:01	06/26/20 06:01	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497524	1	06/23/20 19:03	06/23/20 19:03	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 01:38	JDG	Mt. Juliet, TN

MW-82 L1231207-07 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 12:45 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:01	06/29/20 20:01	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 15:42	06/27/20 15:42	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:21	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:04	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 06:24	06/26/20 06:24	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 01:59	06/24/20 01:59	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 03:17	06/26/20 03:17	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 01:59	JDG	Mt. Juliet, TN

MW-2A L1231207-08 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 08:55 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:02	06/29/20 20:02	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 16:39	06/27/20 16:39	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	5	06/27/20 16:22	06/27/20 16:22	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:37	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:25	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 06:47	06/26/20 06:47	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 02:23	06/24/20 02:23	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 03:37	06/26/20 03:37	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 02:19	JDG	Mt. Juliet, TN

MW-76 L1231207-09 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 13:25 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:03	06/29/20 20:03	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 17:51	06/27/20 17:51	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	5	06/27/20 17:33	06/27/20 17:33	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:40	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:36	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:21	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:07	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 07:10	06/26/20 07:10	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 02:46	06/24/20 02:46	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	20	06/23/20 15:59	06/29/20 08:31	CAG	Mt. Juliet, TN

MW-77 L1231207-10 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 14:10 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:04	06/29/20 20:04	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 18:09	06/27/20 18:09	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	10	06/27/20 18:27	06/27/20 18:27	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 18:45	06/27/20 18:45	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:24	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:39	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:25	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:10	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	50	06/26/20 10:13	06/26/20 10:13	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499327	25	06/26/20 03:47	06/26/20 03:47	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	20	06/23/20 15:59	06/26/20 06:41	JDG	Mt. Juliet, TN

MW-78 L1231207-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 06/17/20 14:55 | Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:06	06/29/20 20:06	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 19:02	06/27/20 19:02	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	50	06/27/20 19:38	06/27/20 19:38	GB	Mt. Juliet, TN

MW-78 L1231207-11 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:55
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:27	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:43	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:28	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 11:46	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	50	06/27/20 18:33	06/27/20 18:33	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 09:37	06/24/20 09:37	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 03:58	06/26/20 03:58	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	20	06/23/20 15:59	06/26/20 07:01	JDG	Mt. Juliet, TN

MW-75 L1231207-12 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 15:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:11	06/29/20 20:11	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	10	06/27/20 20:50	06/27/20 20:50	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 21:08	06/27/20 21:08	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:44	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:47	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:31	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:14	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	50	06/27/20 18:53	06/27/20 18:53	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499327	25	06/26/20 04:08	06/26/20 04:08	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	10	06/23/20 15:59	06/26/20 05:41	JDG	Mt. Juliet, TN

MW-83 L1231207-13 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:12	06/29/20 20:12	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 21:44	06/27/20 21:44	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	5	06/27/20 21:26	06/27/20 21:26	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:48	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:51	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:35	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 11:49	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	5	06/26/20 09:50	06/26/20 09:50	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 03:34	06/24/20 03:34	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 02:39	JDG	Mt. Juliet, TN

MW-3 L1231207-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:13	06/29/20 20:13	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 22:20	06/27/20 22:20	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	5	06/27/20 22:02	06/27/20 22:02	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:54	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:38	LAT	Mt. Juliet, TN

MW-3 L1231207-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 11:53	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1500247	50	06/27/20 19:14	06/27/20 19:14	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499327	25	06/26/20 04:29	06/26/20 04:29	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	10	06/23/20 15:59	06/26/20 05:21	JDG	Mt. Juliet, TN

MW-22A L1231207-15 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:17	06/29/20 20:17	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/27/20 22:37	06/27/20 22:37	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/27/20 23:13	06/27/20 23:13	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:55	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/27/20 22:58	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	1	06/26/20 13:45	06/29/20 04:42	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498753	5	06/26/20 13:45	06/29/20 02:17	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 07:33	06/26/20 07:33	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 04:19	06/26/20 04:19	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/29/20 05:10	CAG	Mt. Juliet, TN

MW-10 L1231207-16 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 09:40
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:18	06/29/20 20:18	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/28/20 00:07	06/28/20 00:07	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/28/20 00:25	06/28/20 00:25	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 17:59	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 21:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 07:55	06/26/20 07:55	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 04:52	06/24/20 04:52	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/29/20 04:49	CAG	Mt. Juliet, TN

MW-123 L1231207-17 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 08:55
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:19	06/29/20 20:19	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/28/20 00:43	06/28/20 00:43	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/28/20 01:01	06/28/20 01:01	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:02	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 21:57	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499250	1	06/26/20 08:18	06/26/20 08:18	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 05:16	06/24/20 05:16	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 03:40	JDG	Mt. Juliet, TN

MW-1R L1231207-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:21	06/29/20 20:21	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/28/20 01:19	06/28/20 01:19	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/28/20 01:37	06/28/20 01:37	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:31	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 05:40	06/24/20 05:40	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 04:39	06/26/20 04:39	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 04:00	JDG	Mt. Juliet, TN

MW-15 L1231207-19 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:45
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:22	06/29/20 20:22	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	1	06/28/20 01:55	06/28/20 01:55	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/28/20 02:12	06/28/20 02:12	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:35	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:04	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 11:51	06/26/20 11:51	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 06:03	06/24/20 06:03	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 05:00	06/26/20 05:00	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 04:20	JDG	Mt. Juliet, TN

OCD-1R L1231207-20 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 14:15
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:27	06/29/20 20:27	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	100	06/28/20 02:48	06/28/20 02:48	GB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498053	5	06/28/20 02:30	06/28/20 02:30	GB	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 18:38	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 12:13	06/26/20 12:13	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 06:27	06/24/20 06:27	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 05:21	06/26/20 05:21	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 04:40	JDG	Mt. Juliet, TN

OCD-2A L1231207-21 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 13:25
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:28	06/29/20 20:28	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 08:29	06/26/20 08:29	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 08:46	06/26/20 08:46	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498732	1	06/26/20 12:45	06/27/20 16:51	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:18	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 12:35	06/26/20 12:35	JHH	Mt. Juliet, TN

OCD-2A L1231207-21 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/17/20 13:25	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 06:51	06/24/20 06:51	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 05:42	06/26/20 05:42	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497647	1	06/23/20 15:59	06/26/20 05:00	JDG	Mt. Juliet, TN

OCD-3 L1231207-22 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/17/20 11:45	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:31	06/29/20 20:31	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 09:03	06/26/20 09:03	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	50	06/26/20 09:20	06/26/20 09:20	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 18:26	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:21	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 12:57	06/26/20 12:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 07:15	06/24/20 07:15	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	1	06/23/20 20:51	06/28/20 11:46	CAG	Mt. Juliet, TN

OCD-4 L1231207-23 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/17/20 10:55	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498149	1	06/24/20 18:51	06/25/20 00:16	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:32	06/29/20 20:32	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 09:36	06/26/20 09:36	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 17:25	06/26/20 17:25	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 18:29	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:25	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 13:20	06/26/20 13:20	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 07:38	06/24/20 07:38	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 06:02	06/26/20 06:02	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	1	06/23/20 20:51	06/28/20 12:08	CAG	Mt. Juliet, TN

MW-11A L1231207-24 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	06/17/20 12:35	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498158	1	06/24/20 23:27	06/24/20 23:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:33	06/29/20 20:33	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 10:10	06/26/20 10:10	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 10:27	06/26/20 10:27	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 18:33	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:28	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 13:42	06/26/20 13:42	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 08:02	06/24/20 08:02	TJJ	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1499413	1	06/26/20 06:23	06/26/20 06:23	KMC	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	1	06/23/20 20:51	06/28/20 12:31	CAG	Mt. Juliet, TN

OCD-5 L1231207-25 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498158	1	06/24/20 23:27	06/24/20 23:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499272	1	06/29/20 20:34	06/29/20 20:34	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 10:44	06/26/20 10:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 11:01	06/26/20 11:01	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 18:36	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:31	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 14:04	06/26/20 14:04	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 08:26	06/24/20 08:26	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	5	06/23/20 20:51	06/29/20 13:00	TJD	Mt. Juliet, TN

DUP-EP-02 L1231207-26 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 10:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498158	1	06/24/20 23:27	06/24/20 23:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499273	1	06/29/20 17:48	06/29/20 17:48	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 11:52	06/26/20 11:52	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 12:09	06/26/20 12:09	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 19:10	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:35	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	5	06/26/20 12:04	06/29/20 00:46	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 14:26	06/26/20 14:26	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497747	1	06/24/20 08:50	06/24/20 08:50	TJJ	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	1	06/23/20 20:51	06/28/20 22:38	CAG	Mt. Juliet, TN

DUP-EP-03 L1231207-27 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 11:00
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498158	1	06/24/20 23:27	06/24/20 23:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499273	1	06/29/20 17:51	06/29/20 17:51	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 12:26	06/26/20 12:26	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	100	06/26/20 12:59	06/26/20 12:59	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 19:14	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:38	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 14:48	06/26/20 14:48	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1498067	1	06/24/20 15:07	06/24/20 15:07	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	5	06/23/20 20:51	06/29/20 13:23	TJD	Mt. Juliet, TN

EB-EP-04 L1231207-28 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 06/17/20 12:10
Received date/time: 06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1498158	1	06/24/20 23:27	06/24/20 23:51	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1499273	1	06/29/20 17:52	06/29/20 17:52	BAM	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1498060	1	06/26/20 16:51	06/26/20 16:51	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498733	1	06/26/20 09:46	06/26/20 19:17	JPD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1498754	1	06/26/20 12:04	06/27/20 22:42	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1499644	1	06/26/20 11:29	06/26/20 11:29	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497977	1	06/24/20 08:40	06/24/20 08:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1497648	1	06/23/20 20:51	06/28/20 12:53	CAG	Mt. Juliet, TN

TRIP BLANK-EP-03 L1231207-29 GW

			Collected by	Collected date/time	Received date/time
			Scott Ude / HMI Team	06/17/20 00:00	06/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1497977	1	06/24/20 07:58	06/24/20 07:58	JAH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 07/06/20 18:09

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8130		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		1.00	2.00	20	06/30/2020 17:40	WG1499271

Sample Narrative:

L1231207-01 WG1499271: Dilution due to sulfide hit

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.0900	0.250	50	06/27/2020 16:20	WG1499866

Sample Narrative:

L1231207-01 WG1499866: Dilution due to sulfide hit

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	555		37.9	100	100	06/27/2020 11:13	WG1498053
Fluoride	8.20		0.0640	0.150	1	06/27/2020 10:56	WG1498053
Sulfate	4170		59.4	500	100	06/27/2020 11:13	WG1498053

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	06/24/2020 09:00	WG1496612
Mercury,Dissolved	0.000109	J	0.000100	0.000200	1	06/24/2020 12:21	WG1496616

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.626		0.0254	0.200	1	06/26/2020 06:14	WG1498741
Boron,Dissolved	0.617		0.0254	0.200	1	06/26/2020 12:16	WG1498721

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.104		0.000735	0.00200	1	06/27/2020 22:03	WG1498753
Arsenic,Dissolved	0.102		0.000735	0.00200	1	06/26/2020 13:14	WG1498730
Barium	0.0255		0.00778	0.0200	1	06/27/2020 22:03	WG1498753
Barium,Dissolved	0.0223		0.00778	0.0200	1	06/26/2020 13:14	WG1498730
Cadmium	U		0.000478	0.00100	1	06/27/2020 22:03	WG1498753
Cadmium,Dissolved	U		0.000478	0.00100	1	06/26/2020 13:14	WG1498730
Calcium	544		0.480	1.00	1	06/27/2020 22:03	WG1498753
Chromium	0.0552		0.00149	0.00200	1	06/27/2020 22:03	WG1498753
Chromium,Dissolved	0.0508		0.00149	0.00200	1	06/26/2020 13:14	WG1498730
Cobalt	0.000506	J	0.000477	0.00200	1	06/27/2020 22:03	WG1498753
Cobalt,Dissolved	U		0.000477	0.00200	1	06/26/2020 13:14	WG1498730
Iron	4.20		0.0489	0.100	1	06/27/2020 22:03	WG1498753
Iron,Dissolved	0.944		0.0489	0.100	1	06/26/2020 13:14	WG1498730

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Lead	U		0.00249	0.00500	1	06/27/2020 22:03	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 13:14	WG1498730
Manganese	0.158		0.00132	0.00500	1	06/27/2020 22:03	WG1498753
Manganese,Dissolved	0.155		0.00132	0.00500	1	06/26/2020 13:14	WG1498730
Nickel	0.00828		0.000952	0.00200	1	06/27/2020 22:03	WG1498753
Nickel,Dissolved	0.00699		0.000952	0.00200	1	06/26/2020 14:47	WG1498730
Potassium	8.40		0.534	2.00	1	06/27/2020 22:03	WG1498753
Selenium	0.00715		0.000657	0.00200	1	06/27/2020 22:03	WG1498753
Selenium,Dissolved	0.00794		0.000657	0.00200	1	06/26/2020 13:14	WG1498730
Sodium	806		0.630	2.00	1	06/27/2020 22:03	WG1498753
Uranium	U		0.00754	0.0200	1	06/27/2020 22:03	WG1498753
Uranium,Dissolved	U		0.00754	0.0200	1	06/26/2020 13:14	WG1498730
Vanadium	0.0220		0.000986	0.00500	1	06/27/2020 22:03	WG1498753
Vanadium,Dissolved	0.0206		0.000986	0.00500	1	06/26/2020 13:14	WG1498730

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.77	J	1.57	5.00	50	06/27/2020 17:52	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*91.1*			*78.0-120*		*06/27/2020 17:52*	WG1500247

Sample Narrative:

L1231207-01 WG1500247: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	06/23/2020 20:27	WG1497524
Benzene	0.0242		0.00188	0.0200	20	06/23/2020 20:27	WG1497524
Bromodichloromethane	U		0.00272	0.0200	20	06/23/2020 20:27	WG1497524
Bromoform	U		0.00258	0.0200	20	06/23/2020 20:27	WG1497524
Bromomethane	U		0.0121	0.100	20	06/23/2020 20:27	WG1497524
n-Butylbenzene	U		0.00314	0.0200	20	06/23/2020 20:27	WG1497524
sec-Butylbenzene	U		0.00250	0.0200	20	06/23/2020 20:27	WG1497524
Carbon disulfide	0.00254	J	0.00192	0.0200	20	06/23/2020 20:27	WG1497524
Carbon tetrachloride	U		0.00256	0.0200	20	06/23/2020 20:27	WG1497524
Chlorobenzene	U	J4	0.00232	0.0200	20	06/23/2020 20:27	WG1497524
Chlorodibromomethane	U		0.00280	0.0200	20	06/23/2020 20:27	WG1497524
Chloroethane	U		0.00384	0.100	20	06/23/2020 20:27	WG1497524
Chloroform	U		0.00222	0.100	20	06/23/2020 20:27	WG1497524
Chloromethane	U		0.0192	0.0500	20	06/23/2020 20:27	WG1497524
1,2-Dibromoethane	U		0.00252	0.0200	20	06/23/2020 20:27	WG1497524
1,1-Dichloroethane	U		0.00200	0.0200	20	06/23/2020 20:27	WG1497524
1,2-Dichloroethane	U		0.00164	0.0200	20	06/23/2020 20:27	WG1497524
1,1-Dichloroethene	U		0.00376	0.0200	20	06/23/2020 20:27	WG1497524
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	06/23/2020 20:27	WG1497524
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	06/23/2020 20:27	WG1497524
1,2-Dichloropropane	U		0.00298	0.0200	20	06/23/2020 20:27	WG1497524
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	06/23/2020 20:27	WG1497524
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	06/23/2020 20:27	WG1497524
Ethylbenzene	0.0199	J	0.00274	0.0200	20	06/23/2020 20:27	WG1497524
Isopropylbenzene	0.00509	J	0.00210	0.0200	20	06/23/2020 20:27	WG1497524
p-Isopropyltoluene	U		0.00240	0.0200	20	06/23/2020 20:27	WG1497524
2-Butanone (MEK)	U		0.0238	0.200	20	06/23/2020 20:27	WG1497524
2-Hexanone	U		0.0157	0.200	20	06/23/2020 20:27	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methylene Chloride	U		0.00860	0.100	20	06/23/2020 20:27	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	06/23/2020 20:27	WG1497524
Methyl tert-butyl ether	U		0.00202	0.0200	20	06/23/2020 20:27	WG1497524
Naphthalene	U		0.0200	0.100	20	06/23/2020 20:27	WG1497524
n-Propylbenzene	0.00566	J	0.00199	0.0200	20	06/23/2020 20:27	WG1497524
Styrene	U		0.00236	0.0200	20	06/23/2020 20:27	WG1497524
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	06/23/2020 20:27	WG1497524
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	06/23/2020 20:27	WG1497524
Tetrachloroethene	U	J4	0.00600	0.0200	20	06/23/2020 20:27	WG1497524
Toluene	0.0345		0.00556	0.0200	20	06/23/2020 20:27	WG1497524
1,1,1-Trichloroethane	U		0.00298	0.0200	20	06/23/2020 20:27	WG1497524
1,1,2-Trichloroethane	U		0.00316	0.0200	20	06/23/2020 20:27	WG1497524
Trichloroethene	U		0.00380	0.0200	20	06/23/2020 20:27	WG1497524
1,2,4-Trimethylbenzene	0.0200		0.00644	0.0200	20	06/23/2020 20:27	WG1497524
1,3,5-Trimethylbenzene	0.00605	J	0.00208	0.0200	20	06/23/2020 20:27	WG1497524
Vinyl chloride	U		0.00468	0.0200	20	06/23/2020 20:27	WG1497524
o-Xylene	0.0216		0.00348	0.0200	20	06/23/2020 20:27	WG1497524
m&p-Xylene	0.0267	J	0.00860	0.0400	20	06/23/2020 20:27	WG1497524
Xylenes, Total	0.0483	J	0.00348	0.0600	20	06/23/2020 20:27	WG1497524
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 20:27*	WG1497524
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/23/2020 20:27*	WG1497524
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/23/2020 20:27*	WG1497524

Sample Narrative:

L1231207-01 WG1497524: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	93.9		0.494	2.00	20	06/27/2020 04:50	WG1497084
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*06/27/2020 04:50*	WG1497084

Sample Narrative:

L1231207-01 WG1497084: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	9700		56.4	200	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 17:23	WG1499271

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1480		37.9	100	100	06/27/2020 11:49	WG1498053
Fluoride	6.24		0.640	1.50	10	06/27/2020 11:31	WG1498053
Sulfate	4710		59.4	500	100	06/27/2020 11:49	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.147		0.000735	0.00200	1	06/27/2020 22:06	WG1498753
Arsenic,Dissolved	0.144		0.000735	0.00200	1	06/27/2020 18:20	WG1498732
Barium	0.0137	J	0.00778	0.0200	1	06/27/2020 22:06	WG1498753
Barium,Dissolved	0.0129	J	0.00778	0.0200	1	06/27/2020 18:20	WG1498732
Calcium	568		0.480	1.00	1	06/27/2020 22:06	WG1498753
Chromium	0.00570		0.00149	0.00200	1	06/27/2020 22:06	WG1498753
Chromium,Dissolved	0.00557		0.00149	0.00200	1	06/27/2020 18:20	WG1498732
Iron	5.90		0.0489	0.100	1	06/27/2020 22:06	WG1498753
Iron,Dissolved	5.90		0.0489	0.100	1	06/27/2020 18:20	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:06	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:20	WG1498732
Manganese	2.54		0.00132	0.00500	1	06/27/2020 22:06	WG1498753
Manganese,Dissolved	2.52		0.00132	0.00500	1	06/27/2020 18:20	WG1498732
Potassium	7.06		0.534	2.00	1	06/27/2020 22:06	WG1498753
Selenium	0.00751		0.000657	0.00200	1	06/27/2020 22:06	WG1498753
Selenium,Dissolved	0.00816		0.000657	0.00200	1	06/27/2020 18:20	WG1498732
Sodium	1400		3.15	10.0	5	06/29/2020 01:53	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.45		0.314	1.00	10	06/26/2020 09:05	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*06/26/2020 09:05*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	06/23/2020 19:23	WG1497524
Benzene	U		0.000471	0.00500	5	06/23/2020 19:23	WG1497524
Bromodichloromethane	U		0.000680	0.00500	5	06/23/2020 19:23	WG1497524
Bromoform	U		0.000645	0.00500	5	06/23/2020 19:23	WG1497524
Bromomethane	U		0.00303	0.0250	5	06/23/2020 19:23	WG1497524
n-Butylbenzene	U		0.000785	0.00500	5	06/23/2020 19:23	WG1497524
sec-Butylbenzene	U		0.000625	0.00500	5	06/23/2020 19:23	WG1497524
Carbon disulfide	U		0.000481	0.00500	5	06/23/2020 19:23	WG1497524
Carbon tetrachloride	U		0.000640	0.00500	5	06/23/2020 19:23	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000580	0.00500	5	06/23/2020 19:23	WG1497524
Chlorodibromomethane	U		0.000700	0.00500	5	06/23/2020 19:23	WG1497524
Chloroethane	U		0.000960	0.0250	5	06/23/2020 19:23	WG1497524
Chloroform	U		0.000555	0.0250	5	06/23/2020 19:23	WG1497524
Chloromethane	U		0.00480	0.0125	5	06/23/2020 19:23	WG1497524
1,2-Dibromoethane	U		0.000630	0.00500	5	06/23/2020 19:23	WG1497524
1,1-Dichloroethane	U		0.000500	0.00500	5	06/23/2020 19:23	WG1497524
1,2-Dichloroethane	U		0.000409	0.00500	5	06/23/2020 19:23	WG1497524
1,1-Dichloroethene	U		0.000940	0.00500	5	06/23/2020 19:23	WG1497524
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	06/23/2020 19:23	WG1497524
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	06/23/2020 19:23	WG1497524
1,2-Dichloropropane	U		0.000745	0.00500	5	06/23/2020 19:23	WG1497524
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	06/23/2020 19:23	WG1497524
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	06/23/2020 19:23	WG1497524
Ethylbenzene	U		0.000685	0.00500	5	06/23/2020 19:23	WG1497524
Isopropylbenzene	0.000576	J	0.000525	0.00500	5	06/23/2020 19:23	WG1497524
p-Isopropyltoluene	U		0.000600	0.00500	5	06/23/2020 19:23	WG1497524
2-Butanone (MEK)	U		0.00595	0.0500	5	06/23/2020 19:23	WG1497524
2-Hexanone	U		0.00394	0.0500	5	06/23/2020 19:23	WG1497524
Methylene Chloride	U		0.00215	0.0250	5	06/23/2020 19:23	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	06/23/2020 19:23	WG1497524
Methyl tert-butyl ether	0.00112	J	0.000505	0.00500	5	06/23/2020 19:23	WG1497524
Naphthalene	U		0.00500	0.0250	5	06/23/2020 19:23	WG1497524
n-Propylbenzene	U		0.000497	0.00500	5	06/23/2020 19:23	WG1497524
Styrene	U		0.000590	0.00500	5	06/23/2020 19:23	WG1497524
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	06/23/2020 19:23	WG1497524
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	06/23/2020 19:23	WG1497524
Tetrachloroethene	U	J4	0.00150	0.00500	5	06/23/2020 19:23	WG1497524
Toluene	U		0.00139	0.00500	5	06/23/2020 19:23	WG1497524
1,1,1-Trichloroethane	U		0.000745	0.00500	5	06/23/2020 19:23	WG1497524
1,1,2-Trichloroethane	U		0.000790	0.00500	5	06/23/2020 19:23	WG1497524
Trichloroethene	U		0.000950	0.00500	5	06/23/2020 19:23	WG1497524
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	06/23/2020 19:23	WG1497524
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	06/23/2020 19:23	WG1497524
Vinyl chloride	U		0.00117	0.00500	5	06/23/2020 19:23	WG1497524
o-Xylene	U		0.000870	0.00500	5	06/23/2020 19:23	WG1497524
m&p-Xylene	U		0.00215	0.0100	5	06/23/2020 19:23	WG1497524
Xylenes, Total	U		0.000870	0.0150	5	06/23/2020 19:23	WG1497524
(S) Toluene-d8	*111*			*80.0-120*		*06/23/2020 19:23*	WG1497524
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/23/2020 19:23*	WG1497524
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/23/2020 19:23*	WG1497524

Sample Narrative:

L1231207-02 WG1497524: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	58.9		0.494	2.00	20	06/26/2020 06:01	WG1497647
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*06/26/2020 06:01*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6070		28.2	100	1	06/25/2020 00:47	WG1498151

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 17:25	WG1499271

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1470		37.9	100	100	06/27/2020 12:25	WG1498053
Fluoride	2.58		0.0640	0.150	1	06/27/2020 12:07	WG1498053
Sulfate	2450		59.4	500	100	06/27/2020 12:25	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00412		0.000735	0.00200	1	06/27/2020 21:22	WG1498753
Arsenic,Dissolved	0.00365		0.000735	0.00200	1	06/27/2020 17:06	WG1498732
Barium	0.0194	J	0.00778	0.0200	1	06/27/2020 21:22	WG1498753
Barium,Dissolved	0.0194	J	0.00778	0.0200	1	06/27/2020 17:06	WG1498732
Calcium	413		0.480	1.00	1	06/27/2020 21:22	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 21:22	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:06	WG1498732
Iron	3.11		0.0489	0.100	1	06/27/2020 21:22	WG1498753
Iron,Dissolved	1.85		0.0489	0.100	1	06/27/2020 17:06	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 21:22	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:06	WG1498732
Manganese	1.02	V	0.00132	0.00500	1	06/27/2020 21:22	WG1498753
Manganese,Dissolved	1.05		0.00132	0.00500	1	06/27/2020 17:06	WG1498732
Potassium	4.03		0.534	2.00	1	06/27/2020 21:22	WG1498753
Selenium	0.000840	J	0.000657	0.00200	1	06/27/2020 21:22	WG1498753
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 17:06	WG1498732
Sodium	1080		3.15	10.0	5	06/29/2020 01:57	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		1.57	5.00	50	06/27/2020 18:12	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*93.1*			*78.0-120*		*06/27/2020 18:12*	WG1500247

Sample Narrative:

L1231207-03 WG1500247: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 18:03	WG1497524
Benzene	U		0.0000941	0.00100	1	06/23/2020 18:03	WG1497524
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 18:03	WG1497524
Bromoform	U		0.000129	0.00100	1	06/23/2020 18:03	WG1497524
Bromomethane	U		0.000605	0.00500	1	06/23/2020 18:03	WG1497524
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 18:03	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 18:03	WG1497524
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 18:03	WG1497524
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 18:03	WG1497524
Chlorobenzene	U	J4	0.000116	0.00100	1	06/23/2020 18:03	WG1497524
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 18:03	WG1497524
Chloroethane	U		0.000192	0.00500	1	06/23/2020 18:03	WG1497524
Chloroform	U		0.000111	0.00500	1	06/23/2020 18:03	WG1497524
Chloromethane	U		0.000960	0.00250	1	06/23/2020 18:03	WG1497524
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 18:03	WG1497524
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 18:03	WG1497524
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 18:03	WG1497524
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 18:03	WG1497524
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 18:03	WG1497524
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 18:03	WG1497524
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 18:03	WG1497524
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 18:03	WG1497524
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 18:03	WG1497524
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 18:03	WG1497524
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 18:03	WG1497524
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 18:03	WG1497524
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 18:03	WG1497524
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 18:03	WG1497524
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 18:03	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 18:03	WG1497524
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 18:03	WG1497524
Naphthalene	U		0.00100	0.00500	1	06/23/2020 18:03	WG1497524
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 18:03	WG1497524
Styrene	U		0.000118	0.00100	1	06/23/2020 18:03	WG1497524
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 18:03	WG1497524
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 18:03	WG1497524
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/23/2020 18:03	WG1497524
Toluene	U		0.000278	0.00100	1	06/23/2020 18:03	WG1497524
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 18:03	WG1497524
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 18:03	WG1497524
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 18:03	WG1497524
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 18:03	WG1497524
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 18:03	WG1497524
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 18:03	WG1497524
o-Xylene	U		0.000174	0.00100	1	06/23/2020 18:03	WG1497524
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 18:03	WG1497524
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 18:03	WG1497524
(S) Toluene-d8	*108*			*80.0-120*		*06/23/2020 18:03*	WG1497524
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/23/2020 18:03*	WG1497524
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/23/2020 18:03*	WG1497524

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0398	J	0.0247	0.100	1	06/26/2020 00:37	WG1497647
(S) o-Terphenyl	*51.4*			*31.0-160*		*06/26/2020 00:37*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4750		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.54		0.0500	0.100	1	06/30/2020 17:26	WG1499271

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1050		37.9	100	100	06/27/2020 13:01	WG1498053
Fluoride	5.73		0.0640	0.150	1	06/27/2020 12:43	WG1498053
Sulfate	1990		59.4	500	100	06/27/2020 13:01	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00402		0.000735	0.00200	1	06/27/2020 22:10	WG1498753
Arsenic,Dissolved	0.00396		0.000735	0.00200	1	06/27/2020 17:09	WG1498732
Barium	0.0110	J	0.00778	0.0200	1	06/27/2020 22:10	WG1498753
Barium,Dissolved	0.0109	J	0.00778	0.0200	1	06/27/2020 17:09	WG1498732
Calcium	441		0.480	1.00	1	06/27/2020 22:10	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:10	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:09	WG1498732
Iron	U		0.0489	0.100	1	06/27/2020 22:10	WG1498753
Iron,Dissolved	U		0.0489	0.100	1	06/27/2020 17:09	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:10	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:09	WG1498732
Manganese	0.506		0.00132	0.00500	1	06/27/2020 22:10	WG1498753
Manganese,Dissolved	0.474		0.00132	0.00500	1	06/27/2020 17:09	WG1498732
Potassium	5.49		0.534	2.00	1	06/27/2020 22:10	WG1498753
Selenium	0.00331		0.000657	0.00200	1	06/27/2020 22:10	WG1498753
Selenium,Dissolved	0.00297		0.000657	0.00200	1	06/27/2020 17:09	WG1498732
Sodium	908		0.630	2.00	1	06/27/2020 22:10	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0978	J	0.0314	0.100	1	06/26/2020 05:16	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/26/2020 05:16*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 18:23	WG1497524
Benzene	U		0.0000941	0.00100	1	06/23/2020 18:23	WG1497524
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 18:23	WG1497524
Bromoform	U		0.000129	0.00100	1	06/23/2020 18:23	WG1497524
Bromomethane	U		0.000605	0.00500	1	06/23/2020 18:23	WG1497524
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 18:23	WG1497524
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 18:23	WG1497524
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 18:23	WG1497524
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 18:23	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/23/2020 18:23	WG1497524
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 18:23	WG1497524
Chloroethane	U		0.000192	0.00500	1	06/23/2020 18:23	WG1497524
Chloroform	U		0.000111	0.00500	1	06/23/2020 18:23	WG1497524
Chloromethane	U		0.000960	0.00250	1	06/23/2020 18:23	WG1497524
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 18:23	WG1497524
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 18:23	WG1497524
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 18:23	WG1497524
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 18:23	WG1497524
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 18:23	WG1497524
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 18:23	WG1497524
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 18:23	WG1497524
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 18:23	WG1497524
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 18:23	WG1497524
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 18:23	WG1497524
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 18:23	WG1497524
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 18:23	WG1497524
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 18:23	WG1497524
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 18:23	WG1497524
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 18:23	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 18:23	WG1497524
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 18:23	WG1497524
Naphthalene	U		0.00100	0.00500	1	06/23/2020 18:23	WG1497524
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 18:23	WG1497524
Styrene	U		0.000118	0.00100	1	06/23/2020 18:23	WG1497524
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 18:23	WG1497524
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 18:23	WG1497524
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/23/2020 18:23	WG1497524
Toluene	U		0.000278	0.00100	1	06/23/2020 18:23	WG1497524
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 18:23	WG1497524
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 18:23	WG1497524
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 18:23	WG1497524
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 18:23	WG1497524
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 18:23	WG1497524
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 18:23	WG1497524
o-Xylene	U		0.000174	0.00100	1	06/23/2020 18:23	WG1497524
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 18:23	WG1497524
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 18:23	WG1497524
(S) Toluene-d8	*114*			*80.0-120*		*06/23/2020 18:23*	WG1497524
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/23/2020 18:23*	WG1497524
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/23/2020 18:23*	WG1497524

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.269		0.0247	0.100	1	06/26/2020 00:57	WG1497647
(S) o-Terphenyl	*73.2*			*31.0-160*		*06/26/2020 00:57*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4990		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/30/2020 17:27	WG1499271

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1210		37.9	100	100	06/27/2020 14:13	WG1498053
Fluoride	2.19		0.0640	0.150	1	06/27/2020 13:55	WG1498053
Sulfate	1980		59.4	500	100	06/27/2020 14:13	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00174	J	0.000735	0.00200	1	06/27/2020 22:14	WG1498753
Arsenic,Dissolved	0.00174	J	0.000735	0.00200	1	06/27/2020 17:13	WG1498732
Barium	0.0137	J	0.00778	0.0200	1	06/27/2020 22:14	WG1498753
Barium,Dissolved	0.0129	J	0.00778	0.0200	1	06/27/2020 17:13	WG1498732
Calcium	620		0.480	1.00	1	06/27/2020 22:14	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:14	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:13	WG1498732
Iron	0.276		0.0489	0.100	1	06/27/2020 22:14	WG1498753
Iron,Dissolved	0.140		0.0489	0.100	1	06/27/2020 17:13	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:14	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:13	WG1498732
Manganese	1.47		0.00132	0.00500	1	06/27/2020 22:14	WG1498753
Manganese,Dissolved	1.39		0.00132	0.00500	1	06/27/2020 17:13	WG1498732
Potassium	2.99		0.534	2.00	1	06/27/2020 22:14	WG1498753
Selenium	U		0.000657	0.00200	1	06/27/2020 22:14	WG1498753
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 17:13	WG1498732
Sodium	680		0.630	2.00	1	06/27/2020 22:14	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/27/2020 17:31	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*		*06/27/2020 17:31*	WG1500247

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 18:43	WG1497524
Benzene	U		0.0000941	0.00100	1	06/23/2020 18:43	WG1497524
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 18:43	WG1497524
Bromoform	U		0.000129	0.00100	1	06/23/2020 18:43	WG1497524
Bromomethane	U		0.000605	0.00500	1	06/23/2020 18:43	WG1497524
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 18:43	WG1497524
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 18:43	WG1497524
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 18:43	WG1497524
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 18:43	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/23/2020 18:43	WG1497524
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 18:43	WG1497524
Chloroethane	U		0.000192	0.00500	1	06/23/2020 18:43	WG1497524
Chloroform	U		0.000111	0.00500	1	06/23/2020 18:43	WG1497524
Chloromethane	U		0.000960	0.00250	1	06/23/2020 18:43	WG1497524
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 18:43	WG1497524
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 18:43	WG1497524
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 18:43	WG1497524
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 18:43	WG1497524
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 18:43	WG1497524
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 18:43	WG1497524
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 18:43	WG1497524
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 18:43	WG1497524
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 18:43	WG1497524
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 18:43	WG1497524
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 18:43	WG1497524
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 18:43	WG1497524
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 18:43	WG1497524
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 18:43	WG1497524
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 18:43	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 18:43	WG1497524
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 18:43	WG1497524
Naphthalene	U		0.00100	0.00500	1	06/23/2020 18:43	WG1497524
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 18:43	WG1497524
Styrene	U		0.000118	0.00100	1	06/23/2020 18:43	WG1497524
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 18:43	WG1497524
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 18:43	WG1497524
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/23/2020 18:43	WG1497524
Toluene	U		0.000278	0.00100	1	06/23/2020 18:43	WG1497524
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 18:43	WG1497524
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 18:43	WG1497524
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 18:43	WG1497524
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 18:43	WG1497524
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 18:43	WG1497524
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 18:43	WG1497524
o-Xylene	U		0.000174	0.00100	1	06/23/2020 18:43	WG1497524
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 18:43	WG1497524
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 18:43	WG1497524
(S) Toluene-d8	*111*			*80.0-120*		*06/23/2020 18:43*	WG1497524
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*06/23/2020 18:43*	WG1497524
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 18:43*	WG1497524

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 01:18	WG1497647
(S) o-Terphenyl	*64.2*			*31.0-160*		*06/26/2020 01:18*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7550		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:51	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2150		37.9	100	100	06/27/2020 15:24	WG1498053
Fluoride	5.09		0.640	1.50	10	06/27/2020 15:06	WG1498053
Sulfate	2540		59.4	500	100	06/27/2020 15:24	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00291		0.000735	0.00200	1	06/27/2020 22:17	WG1498753
Arsenic,Dissolved	0.00278		0.000735	0.00200	1	06/27/2020 17:17	WG1498732
Barium	0.0154	J	0.00778	0.0200	1	06/27/2020 22:17	WG1498753
Barium,Dissolved	0.0176	J	0.00778	0.0200	1	06/27/2020 17:17	WG1498732
Calcium	768		0.480	1.00	1	06/27/2020 22:17	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:17	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:17	WG1498732
Iron	0.998		0.0489	0.100	1	06/27/2020 22:17	WG1498753
Iron,Dissolved	1.04		0.0489	0.100	1	06/27/2020 17:17	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:17	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:17	WG1498732
Manganese	4.60		0.00132	0.00500	1	06/27/2020 22:17	WG1498753
Manganese,Dissolved	4.61		0.00132	0.00500	1	06/27/2020 17:17	WG1498732
Potassium	6.82		0.534	2.00	1	06/27/2020 22:17	WG1498753
Selenium	U		0.000657	0.00200	1	06/27/2020 22:17	WG1498753
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 17:17	WG1498732
Sodium	1160		3.15	10.0	5	06/29/2020 02:00	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0534	J	0.0314	0.100	1	06/26/2020 06:01	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/26/2020 06:01*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/23/2020 19:03	WG1497524
Benzene	U		0.0000941	0.00100	1	06/23/2020 19:03	WG1497524
Bromodichloromethane	U		0.000136	0.00100	1	06/23/2020 19:03	WG1497524
Bromoform	U		0.000129	0.00100	1	06/23/2020 19:03	WG1497524
Bromomethane	U		0.000605	0.00500	1	06/23/2020 19:03	WG1497524
n-Butylbenzene	U		0.000157	0.00100	1	06/23/2020 19:03	WG1497524
sec-Butylbenzene	U		0.000125	0.00100	1	06/23/2020 19:03	WG1497524
Carbon disulfide	U		0.0000962	0.00100	1	06/23/2020 19:03	WG1497524
Carbon tetrachloride	U		0.000128	0.00100	1	06/23/2020 19:03	WG1497524

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U	J4	0.000116	0.00100	1	06/23/2020 19:03	WG1497524
Chlorodibromomethane	U		0.000140	0.00100	1	06/23/2020 19:03	WG1497524
Chloroethane	U		0.000192	0.00500	1	06/23/2020 19:03	WG1497524
Chloroform	U		0.000111	0.00500	1	06/23/2020 19:03	WG1497524
Chloromethane	U		0.000960	0.00250	1	06/23/2020 19:03	WG1497524
1,2-Dibromoethane	U		0.000126	0.00100	1	06/23/2020 19:03	WG1497524
1,1-Dichloroethane	U		0.000100	0.00100	1	06/23/2020 19:03	WG1497524
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/23/2020 19:03	WG1497524
1,1-Dichloroethene	U		0.000188	0.00100	1	06/23/2020 19:03	WG1497524
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/23/2020 19:03	WG1497524
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/23/2020 19:03	WG1497524
1,2-Dichloropropane	U		0.000149	0.00100	1	06/23/2020 19:03	WG1497524
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/23/2020 19:03	WG1497524
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/23/2020 19:03	WG1497524
Ethylbenzene	U		0.000137	0.00100	1	06/23/2020 19:03	WG1497524
Isopropylbenzene	U		0.000105	0.00100	1	06/23/2020 19:03	WG1497524
p-Isopropyltoluene	U		0.000120	0.00100	1	06/23/2020 19:03	WG1497524
2-Butanone (MEK)	U		0.00119	0.0100	1	06/23/2020 19:03	WG1497524
2-Hexanone	U		0.000787	0.0100	1	06/23/2020 19:03	WG1497524
Methylene Chloride	U		0.000430	0.00500	1	06/23/2020 19:03	WG1497524
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/23/2020 19:03	WG1497524
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/23/2020 19:03	WG1497524
Naphthalene	U		0.00100	0.00500	1	06/23/2020 19:03	WG1497524
n-Propylbenzene	U		0.0000993	0.00100	1	06/23/2020 19:03	WG1497524
Styrene	U		0.000118	0.00100	1	06/23/2020 19:03	WG1497524
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/23/2020 19:03	WG1497524
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/23/2020 19:03	WG1497524
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/23/2020 19:03	WG1497524
Toluene	U		0.000278	0.00100	1	06/23/2020 19:03	WG1497524
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/23/2020 19:03	WG1497524
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/23/2020 19:03	WG1497524
Trichloroethene	U		0.000190	0.00100	1	06/23/2020 19:03	WG1497524
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/23/2020 19:03	WG1497524
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/23/2020 19:03	WG1497524
Vinyl chloride	U		0.000234	0.00100	1	06/23/2020 19:03	WG1497524
o-Xylene	U		0.000174	0.00100	1	06/23/2020 19:03	WG1497524
m&p-Xylene	U		0.000430	0.00200	1	06/23/2020 19:03	WG1497524
Xylenes, Total	U		0.000174	0.00300	1	06/23/2020 19:03	WG1497524
(S) Toluene-d8	*110*			*80.0-120*		*06/23/2020 19:03*	WG1497524
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/23/2020 19:03*	WG1497524
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*06/23/2020 19:03*	WG1497524

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0762	J	0.0247	0.100	1	06/26/2020 01:38	WG1497647
(S) o-Terphenyl	*62.1*			*31.0-160*		*06/26/2020 01:38*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5560		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:01	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1430		37.9	100	100	06/27/2020 15:42	WG1498053
Fluoride	9.31	J	6.40	15.0	100	06/27/2020 15:42	WG1498053
Sulfate	2180		59.4	500	100	06/27/2020 15:42	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0964		0.000735	0.00200	1	06/27/2020 22:21	WG1498753
Arsenic,Dissolved	0.0974		0.000735	0.00200	1	06/27/2020 17:33	WG1498732
Barium	0.0235		0.00778	0.0200	1	06/27/2020 22:21	WG1498753
Barium,Dissolved	0.0226		0.00778	0.0200	1	06/27/2020 17:33	WG1498732
Calcium	422		0.480	1.00	1	06/27/2020 22:21	WG1498753
Chromium	0.00215		0.00149	0.00200	1	06/27/2020 22:21	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:33	WG1498732
Iron	4.11		0.0489	0.100	1	06/27/2020 22:21	WG1498753
Iron,Dissolved	4.09		0.0489	0.100	1	06/27/2020 17:33	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:21	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:33	WG1498732
Manganese	2.22		0.00132	0.00500	1	06/27/2020 22:21	WG1498753
Manganese,Dissolved	2.23		0.00132	0.00500	1	06/27/2020 17:33	WG1498732
Potassium	8.75		0.534	2.00	1	06/27/2020 22:21	WG1498753
Selenium	0.00109	J	0.000657	0.00200	1	06/27/2020 22:21	WG1498753
Selenium,Dissolved	0.00109	J	0.000657	0.00200	1	06/27/2020 17:33	WG1498732
Sodium	1150		3.15	10.0	5	06/29/2020 02:04	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.689		0.0314	0.100	1	06/26/2020 06:24	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*113*			*78.0-120*		*06/26/2020 06:24*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 01:59	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 01:59	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 01:59	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 01:59	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 01:59	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 01:59	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 01:59	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 01:59	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 01:59	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 01:59	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 01:59	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 01:59	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 01:59	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 01:59	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 01:59	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 01:59	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 01:59	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 01:59	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 01:59	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 01:59	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 01:59	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 01:59	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 01:59	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 01:59	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 01:59	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 01:59	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 01:59	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 01:59	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 01:59	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 01:59	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 01:59	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 01:59	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 01:59	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 01:59	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 01:59	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 01:59	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 03:17	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 01:59	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 01:59	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 01:59	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 01:59	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 01:59	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 01:59	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 01:59	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 01:59	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 01:59	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 01:59	WG1497747
(S) Toluene-d8	*107*			*80.0-120*		*06/24/2020 01:59*	WG1497747
(S) Toluene-d8	*105*			*80.0-120*		*06/26/2020 03:17*	WG1499413
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*06/24/2020 01:59*	WG1497747
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/26/2020 03:17*	WG1499413
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*		*06/24/2020 01:59*	WG1497747
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/26/2020 03:17*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.58		0.0247	0.100	1	06/26/2020 01:59	WG1497647
(S) o-Terphenyl	*78.9*			*31.0-160*		*06/26/2020 01:59*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3960		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:02	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	879		37.9	100	100	06/27/2020 16:39	WG1498053
Fluoride	2.70		0.320	0.750	5	06/27/2020 16:22	WG1498053
Sulfate	1730		59.4	500	100	06/27/2020 16:39	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0140		0.000735	0.00200	1	06/27/2020 22:25	WG1498753
Arsenic,Dissolved	0.00932		0.000735	0.00200	1	06/27/2020 17:37	WG1498732
Barium	0.0200		0.00778	0.0200	1	06/27/2020 22:25	WG1498753
Barium,Dissolved	0.0180	J	0.00778	0.0200	1	06/27/2020 17:37	WG1498732
Calcium	487		0.480	1.00	1	06/27/2020 22:25	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:25	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:37	WG1498732
Iron	2.78		0.0489	0.100	1	06/27/2020 22:25	WG1498753
Iron,Dissolved	1.67		0.0489	0.100	1	06/27/2020 17:37	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:25	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:37	WG1498732
Manganese	1.74		0.00132	0.00500	1	06/27/2020 22:25	WG1498753
Manganese,Dissolved	1.46		0.00132	0.00500	1	06/27/2020 17:37	WG1498732
Potassium	3.28		0.534	2.00	1	06/27/2020 22:25	WG1498753
Selenium	U		0.000657	0.00200	1	06/27/2020 22:25	WG1498753
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 17:37	WG1498732
Sodium	610		0.630	2.00	1	06/27/2020 22:25	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0484	J	0.0314	0.100	1	06/26/2020 06:47	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/26/2020 06:47*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 02:23	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 02:23	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 02:23	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 02:23	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 02:23	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 02:23	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 02:23	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 02:23	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 02:23	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 02:23	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 02:23	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 02:23	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 02:23	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 02:23	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 02:23	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 02:23	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 02:23	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 02:23	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 02:23	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 02:23	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 02:23	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 02:23	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 02:23	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 02:23	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 02:23	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 02:23	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 02:23	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 02:23	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 02:23	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 02:23	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 02:23	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 02:23	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 02:23	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 02:23	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 02:23	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 02:23	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 03:37	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 02:23	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 02:23	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 02:23	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 02:23	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 02:23	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 02:23	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 02:23	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 02:23	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 02:23	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 02:23	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/24/2020 02:23*	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/26/2020 03:37*	WG1499413
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/24/2020 02:23*	WG1497747
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*06/26/2020 03:37*	WG1499413
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*06/24/2020 02:23*	WG1497747
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/26/2020 03:37*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 02:19	WG1497647
(S) o-Terphenyl	*62.1*			*31.0-160*		*06/26/2020 02:19*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5620		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:03	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1150		37.9	100	100	06/27/2020 17:51	WG1498053
Fluoride	2.89		0.320	0.750	5	06/27/2020 17:33	WG1498053
Sulfate	2270		59.4	500	100	06/27/2020 17:51	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0378		0.000735	0.00200	1	06/27/2020 22:36	WG1498753
Arsenic,Dissolved	0.0374		0.000735	0.00200	1	06/27/2020 17:40	WG1498732
Barium	0.0121	J	0.00778	0.0200	1	06/27/2020 22:36	WG1498753
Barium,Dissolved	0.0113	J	0.00778	0.0200	1	06/27/2020 17:40	WG1498732
Calcium	454		0.480	1.00	1	06/27/2020 22:36	WG1498753
Chromium	0.00180	J	0.00149	0.00200	1	06/27/2020 22:36	WG1498753
Chromium,Dissolved	0.00180	J	0.00149	0.00200	1	06/27/2020 17:40	WG1498732
Iron	3.52		0.0489	0.100	1	06/27/2020 22:36	WG1498753
Iron,Dissolved	3.20		0.0489	0.100	1	06/27/2020 17:40	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:21	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:40	WG1498732
Manganese	0.737		0.00132	0.00500	1	06/27/2020 22:36	WG1498753
Manganese,Dissolved	0.764		0.00132	0.00500	1	06/27/2020 17:40	WG1498732
Potassium	26.2		0.534	2.00	1	06/27/2020 22:36	WG1498753
Selenium	0.00379		0.000657	0.00200	1	06/29/2020 04:21	WG1498753
Selenium,Dissolved	0.00314		0.000657	0.00200	1	06/27/2020 17:40	WG1498732
Sodium	975		3.15	10.0	5	06/29/2020 02:07	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.89		0.0314	0.100	1	06/26/2020 07:10	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*114*			*78.0-120*		*06/26/2020 07:10*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 02:46	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 02:46	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 02:46	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 02:46	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 02:46	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 02:46	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 02:46	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 02:46	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 02:46	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 02:46	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 02:46	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 02:46	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 02:46	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 02:46	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 02:46	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 02:46	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 02:46	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 02:46	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 02:46	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 02:46	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 02:46	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 02:46	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 02:46	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 02:46	WG1497747
Isopropylbenzene	0.00915		0.000105	0.00100	1	06/24/2020 02:46	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 02:46	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 02:46	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 02:46	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 02:46	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 02:46	WG1497747
Methyl tert-butyl ether	0.0111		0.000101	0.00100	1	06/24/2020 02:46	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 02:46	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 02:46	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 02:46	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 02:46	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 02:46	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 02:46	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 02:46	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 02:46	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 02:46	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 02:46	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 02:46	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 02:46	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 02:46	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 02:46	WG1497747
m&p-Xylene	0.000628	J	0.000430	0.00200	1	06/24/2020 02:46	WG1497747
Xylenes, Total	0.000628	J	0.000174	0.00300	1	06/24/2020 02:46	WG1497747
(S) Toluene-d8	*101*			*80.0-120*		*06/24/2020 02:46*	WG1497747
(S) 4-Bromofluorobenzene	*112*			*77.0-126*		*06/24/2020 02:46*	WG1497747
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*		*06/24/2020 02:46*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	20.8		0.494	2.00	20	06/29/2020 08:31	WG1497647
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*06/29/2020 08:31*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7430		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:04	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	428		3.79	10.0	10	06/27/2020 18:27	WG1498053
Fluoride	2.53		0.0640	0.150	1	06/27/2020 18:09	WG1498053
Sulfate	3950		59.4	500	100	06/27/2020 18:45	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0416		0.000735	0.00200	1	06/27/2020 22:39	WG1498753
Arsenic,Dissolved	0.0404		0.000735	0.00200	1	06/27/2020 18:24	WG1498732
Barium	0.0107	J	0.00778	0.0200	1	06/27/2020 22:39	WG1498753
Barium,Dissolved	0.0103	J	0.00778	0.0200	1	06/27/2020 18:24	WG1498732
Calcium	488		0.480	1.00	1	06/27/2020 22:39	WG1498753
Chromium	0.00879		0.00149	0.00200	1	06/27/2020 22:39	WG1498753
Chromium,Dissolved	0.00801		0.00149	0.00200	1	06/27/2020 18:24	WG1498732
Iron	8.79		0.0489	0.100	1	06/27/2020 22:39	WG1498753
Iron,Dissolved	8.27		0.0489	0.100	1	06/27/2020 18:24	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:25	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:24	WG1498732
Manganese	0.576		0.00132	0.00500	1	06/27/2020 22:39	WG1498753
Manganese,Dissolved	0.581		0.00132	0.00500	1	06/27/2020 18:24	WG1498732
Potassium	64.2		0.534	2.00	1	06/27/2020 22:39	WG1498753
Selenium	0.00835		0.000657	0.00200	1	06/29/2020 04:25	WG1498753
Selenium,Dissolved	0.00777		0.000657	0.00200	1	06/27/2020 18:24	WG1498732
Sodium	1070		3.15	10.0	5	06/29/2020 02:10	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.88	J	1.57	5.00	50	06/26/2020 10:13	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 10:13*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.282	1.25	25	06/26/2020 03:47	WG1499327
Benzene	U		0.00235	0.0250	25	06/26/2020 03:47	WG1499327
Bromodichloromethane	U		0.00340	0.0250	25	06/26/2020 03:47	WG1499327
Bromoform	U		0.00322	0.0250	25	06/26/2020 03:47	WG1499327
Bromomethane	U		0.0151	0.125	25	06/26/2020 03:47	WG1499327
n-Butylbenzene	U		0.00393	0.0250	25	06/26/2020 03:47	WG1499327
sec-Butylbenzene	U		0.00313	0.0250	25	06/26/2020 03:47	WG1499327
Carbon disulfide	U		0.00241	0.0250	25	06/26/2020 03:47	WG1499327
Carbon tetrachloride	U		0.00320	0.0250	25	06/26/2020 03:47	WG1499327

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.00290	0.0250	25	06/26/2020 03:47	WG1499327
Chlorodibromomethane	U		0.00350	0.0250	25	06/26/2020 03:47	WG1499327
Chloroethane	U		0.00480	0.125	25	06/26/2020 03:47	WG1499327
Chloroform	U		0.00278	0.125	25	06/26/2020 03:47	WG1499327
Chloromethane	U		0.0240	0.0625	25	06/26/2020 03:47	WG1499327
1,2-Dibromoethane	U		0.00315	0.0250	25	06/26/2020 03:47	WG1499327
1,1-Dichloroethane	U		0.00250	0.0250	25	06/26/2020 03:47	WG1499327
1,2-Dichloroethane	U		0.00205	0.0250	25	06/26/2020 03:47	WG1499327
1,1-Dichloroethene	U		0.00470	0.0250	25	06/26/2020 03:47	WG1499327
cis-1,2-Dichloroethene	U		0.00315	0.0250	25	06/26/2020 03:47	WG1499327
trans-1,2-Dichloroethene	U		0.00373	0.0250	25	06/26/2020 03:47	WG1499327
1,2-Dichloropropane	U		0.00373	0.0250	25	06/26/2020 03:47	WG1499327
cis-1,3-Dichloropropene	U		0.00278	0.0250	25	06/26/2020 03:47	WG1499327
trans-1,3-Dichloropropene	U		0.00295	0.0250	25	06/26/2020 03:47	WG1499327
Ethylbenzene	U		0.00343	0.0250	25	06/26/2020 03:47	WG1499327
Isopropylbenzene	0.0226	J	0.00263	0.0250	25	06/26/2020 03:47	WG1499327
p-Isopropyltoluene	U		0.00300	0.0250	25	06/26/2020 03:47	WG1499327
2-Butanone (MEK)	U		0.0298	0.250	25	06/26/2020 03:47	WG1499327
2-Hexanone	U		0.0197	0.250	25	06/26/2020 03:47	WG1499327
Methylene Chloride	U		0.0107	0.125	25	06/26/2020 03:47	WG1499327
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.250	25	06/26/2020 03:47	WG1499327
Methyl tert-butyl ether	U		0.00253	0.0250	25	06/26/2020 03:47	WG1499327
Naphthalene	U		0.0250	0.125	25	06/26/2020 03:47	WG1499327
n-Propylbenzene	0.00360	J	0.00248	0.0250	25	06/26/2020 03:47	WG1499327
Styrene	U		0.00295	0.0250	25	06/26/2020 03:47	WG1499327
1,1,1,2-Tetrachloroethane	U		0.00368	0.0250	25	06/26/2020 03:47	WG1499327
1,1,2,2-Tetrachloroethane	U		0.00333	0.0250	25	06/26/2020 03:47	WG1499327
Tetrachloroethene	U		0.00750	0.0250	25	06/26/2020 03:47	WG1499327
Toluene	U		0.00695	0.0250	25	06/26/2020 03:47	WG1499327
1,1,1-Trichloroethane	U		0.00373	0.0250	25	06/26/2020 03:47	WG1499327
1,1,2-Trichloroethane	U		0.00395	0.0250	25	06/26/2020 03:47	WG1499327
Trichloroethene	U		0.00475	0.0250	25	06/26/2020 03:47	WG1499327
1,2,4-Trimethylbenzene	U		0.00805	0.0250	25	06/26/2020 03:47	WG1499327
1,3,5-Trimethylbenzene	U		0.00260	0.0250	25	06/26/2020 03:47	WG1499327
Vinyl chloride	U		0.00585	0.0250	25	06/26/2020 03:47	WG1499327
o-Xylene	U		0.00435	0.0250	25	06/26/2020 03:47	WG1499327
m&p-Xylene	U		0.0107	0.0500	25	06/26/2020 03:47	WG1499327
Xylenes, Total	U		0.00435	0.0750	25	06/26/2020 03:47	WG1499327
(S) Toluene-d8	*104*			*80.0-120*		*06/26/2020 03:47*	WG1499327
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*06/26/2020 03:47*	WG1499327
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*		*06/26/2020 03:47*	WG1499327

Sample Narrative:

L1231207-10 WG1499327: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	53.1		0.494	2.00	20	06/26/2020 06:41	WG1497647
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*06/26/2020 06:41*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4460		14.1	50.0	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:06	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	51.7		0.379	1.00	1	06/27/2020 19:02	WG1498053
Fluoride	13.9		3.20	7.50	50	06/27/2020 19:38	WG1498053
Sulfate	2580		29.7	250	50	06/27/2020 19:38	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0237		0.000735	0.00200	1	06/27/2020 22:43	WG1498753
Arsenic,Dissolved	0.0223		0.000735	0.00200	1	06/27/2020 18:27	WG1498732
Barium	0.0498		0.00778	0.0200	1	06/27/2020 22:43	WG1498753
Barium,Dissolved	0.0503		0.00778	0.0200	1	06/27/2020 18:27	WG1498732
Calcium	584		0.480	1.00	1	06/27/2020 22:43	WG1498753
Chromium	0.126		0.00149	0.00200	1	06/27/2020 22:43	WG1498753
Chromium,Dissolved	0.122		0.00149	0.00200	1	06/27/2020 18:27	WG1498732
Iron	6.51		0.0489	0.100	1	06/27/2020 22:43	WG1498753
Iron,Dissolved	6.29		0.0489	0.100	1	06/27/2020 18:27	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:28	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:27	WG1498732
Manganese	0.735		0.00132	0.00500	1	06/27/2020 22:43	WG1498753
Manganese,Dissolved	0.756		0.00132	0.00500	1	06/27/2020 18:27	WG1498732
Potassium	16.6		0.534	2.00	1	06/27/2020 22:43	WG1498753
Selenium	0.00764		0.000657	0.00200	1	06/29/2020 04:28	WG1498753
Selenium,Dissolved	0.00718		0.000657	0.00200	1	06/27/2020 18:27	WG1498732
Sodium	184		0.630	2.00	1	06/29/2020 11:46	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		1.57	5.00	50	06/27/2020 18:33	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*78.0-120*		*06/27/2020 18:33*	WG1500247

Sample Narrative:

L1231207-11 WG1500247: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 09:37	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 09:37	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 09:37	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 09:37	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 09:37	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 09:37	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 09:37	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 09:37	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 09:37	WG1497747
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 09:37	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 09:37	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 09:37	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 09:37	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 09:37	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 09:37	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 09:37	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 09:37	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 09:37	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 09:37	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 09:37	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 09:37	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 09:37	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 09:37	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 09:37	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 09:37	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 09:37	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 09:37	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 09:37	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 09:37	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 09:37	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 09:37	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 09:37	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 09:37	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 09:37	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 09:37	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 09:37	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 03:58	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 09:37	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 09:37	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 09:37	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 09:37	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 09:37	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 09:37	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 09:37	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 09:37	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 09:37	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 09:37	WG1497747
(S) Toluene-d8	*105*			*80.0-120*		*06/24/2020 09:37*	WG1497747
(S) Toluene-d8	*107*			*80.0-120*		*06/26/2020 03:58*	WG1499413
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*06/24/2020 09:37*	WG1497747
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*06/26/2020 03:58*	WG1499413
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*06/24/2020 09:37*	WG1497747
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*06/26/2020 03:58*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	38.5		0.494	2.00	20	06/26/2020 07:01	WG1497647
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*06/26/2020 07:01*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6110		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:11	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1470		37.9	100	100	06/27/2020 21:08	WG1498053
Fluoride	7.22		0.640	1.50	10	06/27/2020 20:50	WG1498053
Sulfate	2080		59.4	500	100	06/27/2020 21:08	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.270		0.000735	0.00200	1	06/27/2020 22:47	WG1498753
Arsenic,Dissolved	0.268		0.000735	0.00200	1	06/27/2020 17:44	WG1498732
Barium	0.0149	J	0.00778	0.0200	1	06/27/2020 22:47	WG1498753
Barium,Dissolved	0.0166	J	0.00778	0.0200	1	06/27/2020 17:44	WG1498732
Calcium	366		0.480	1.00	1	06/27/2020 22:47	WG1498753
Chromium	0.00163	J	0.00149	0.00200	1	06/27/2020 22:47	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:44	WG1498732
Iron	4.58		0.0489	0.100	1	06/27/2020 22:47	WG1498753
Iron,Dissolved	4.51		0.0489	0.100	1	06/27/2020 17:44	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:31	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:44	WG1498732
Manganese	1.13		0.00132	0.00500	1	06/27/2020 22:47	WG1498753
Manganese,Dissolved	1.14		0.00132	0.00500	1	06/27/2020 17:44	WG1498732
Potassium	16.6		0.534	2.00	1	06/27/2020 22:47	WG1498753
Selenium	0.00228		0.000657	0.00200	1	06/29/2020 04:31	WG1498753
Selenium,Dissolved	0.00286		0.000657	0.00200	1	06/27/2020 17:44	WG1498732
Sodium	1340		3.15	10.0	5	06/29/2020 02:14	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.44	J	1.57	5.00	50	06/27/2020 18:53	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*93.5*			*78.0-120*		*06/27/2020 18:53*	WG1500247

Sample Narrative:

L1231207-12 WG1500247: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.282	1.25	25	06/26/2020 04:08	WG1499327
Benzene	U		0.00235	0.0250	25	06/26/2020 04:08	WG1499327
Bromodichloromethane	U		0.00340	0.0250	25	06/26/2020 04:08	WG1499327
Bromoform	U		0.00322	0.0250	25	06/26/2020 04:08	WG1499327
Bromomethane	U		0.0151	0.125	25	06/26/2020 04:08	WG1499327
n-Butylbenzene	U		0.00393	0.0250	25	06/26/2020 04:08	WG1499327

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.00313	0.0250	25	06/26/2020 04:08	WG1499327
Carbon disulfide	U		0.00241	0.0250	25	06/26/2020 04:08	WG1499327
Carbon tetrachloride	U		0.00320	0.0250	25	06/26/2020 04:08	WG1499327
Chlorobenzene	U		0.00290	0.0250	25	06/26/2020 04:08	WG1499327
Chlorodibromomethane	U		0.00350	0.0250	25	06/26/2020 04:08	WG1499327
Chloroethane	U		0.00480	0.125	25	06/26/2020 04:08	WG1499327
Chloroform	U		0.00278	0.125	25	06/26/2020 04:08	WG1499327
Chloromethane	U		0.0240	0.0625	25	06/26/2020 04:08	WG1499327
1,2-Dibromoethane	U		0.00315	0.0250	25	06/26/2020 04:08	WG1499327
1,1-Dichloroethane	U		0.00250	0.0250	25	06/26/2020 04:08	WG1499327
1,2-Dichloroethane	U		0.00205	0.0250	25	06/26/2020 04:08	WG1499327
1,1-Dichloroethene	U		0.00470	0.0250	25	06/26/2020 04:08	WG1499327
cis-1,2-Dichloroethene	U		0.00315	0.0250	25	06/26/2020 04:08	WG1499327
trans-1,2-Dichloroethene	U		0.00373	0.0250	25	06/26/2020 04:08	WG1499327
1,2-Dichloropropane	U		0.00373	0.0250	25	06/26/2020 04:08	WG1499327
cis-1,3-Dichloropropene	U		0.00278	0.0250	25	06/26/2020 04:08	WG1499327
trans-1,3-Dichloropropene	U		0.00295	0.0250	25	06/26/2020 04:08	WG1499327
Ethylbenzene	U		0.00343	0.0250	25	06/26/2020 04:08	WG1499327
Isopropylbenzene	0.00352	J	0.00263	0.0250	25	06/26/2020 04:08	WG1499327
p-Isopropyltoluene	U		0.00300	0.0250	25	06/26/2020 04:08	WG1499327
2-Butanone (MEK)	U		0.0298	0.250	25	06/26/2020 04:08	WG1499327
2-Hexanone	U		0.0197	0.250	25	06/26/2020 04:08	WG1499327
Methylene Chloride	U		0.0107	0.125	25	06/26/2020 04:08	WG1499327
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.250	25	06/26/2020 04:08	WG1499327
Methyl tert-butyl ether	0.00263	J	0.00253	0.0250	25	06/26/2020 04:08	WG1499327
Naphthalene	U		0.0250	0.125	25	06/26/2020 04:08	WG1499327
n-Propylbenzene	U		0.00248	0.0250	25	06/26/2020 04:08	WG1499327
Styrene	U		0.00295	0.0250	25	06/26/2020 04:08	WG1499327
1,1,1,2-Tetrachloroethane	U		0.00368	0.0250	25	06/26/2020 04:08	WG1499327
1,1,2,2-Tetrachloroethane	U		0.00333	0.0250	25	06/26/2020 04:08	WG1499327
Tetrachloroethene	U		0.00750	0.0250	25	06/26/2020 04:08	WG1499327
Toluene	U		0.00695	0.0250	25	06/26/2020 04:08	WG1499327
1,1,1-Trichloroethane	U		0.00373	0.0250	25	06/26/2020 04:08	WG1499327
1,1,2-Trichloroethane	U		0.00395	0.0250	25	06/26/2020 04:08	WG1499327
Trichloroethene	U		0.00475	0.0250	25	06/26/2020 04:08	WG1499327
1,2,4-Trimethylbenzene	U		0.00805	0.0250	25	06/26/2020 04:08	WG1499327
1,3,5-Trimethylbenzene	U		0.00260	0.0250	25	06/26/2020 04:08	WG1499327
Vinyl chloride	U		0.00585	0.0250	25	06/26/2020 04:08	WG1499327
o-Xylene	U		0.00435	0.0250	25	06/26/2020 04:08	WG1499327
m&p-Xylene	U		0.0107	0.0500	25	06/26/2020 04:08	WG1499327
Xylenes, Total	U		0.00435	0.0750	25	06/26/2020 04:08	WG1499327
(S) Toluene-d8	*105*			*80.0-120*		*06/26/2020 04:08*	WG1499327
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/26/2020 04:08*	WG1499327
(S) 1,2-Dichloroethane-d4	*93.0*			*70.0-130*		*06/26/2020 04:08*	WG1499327

Sample Narrative:

L1231207-12 WG1499327: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	12.2		0.247	1.00	10	06/26/2020 05:41	WG1497647
(S) o-Terphenyl	*73.7*			*31.0-160*		*06/26/2020 05:41*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6810		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.31		0.0500	0.100	1	06/29/2020 20:12	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	314		1.90	5.00	5	06/27/2020 21:26	WG1498053
Fluoride	4.63		0.320	0.750	5	06/27/2020 21:26	WG1498053
Sulfate	4190		59.4	500	100	06/27/2020 21:44	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0378		0.000735	0.00200	1	06/27/2020 22:51	WG1498753
Arsenic,Dissolved	0.0372		0.000735	0.00200	1	06/27/2020 17:48	WG1498732
Barium	0.0246		0.00778	0.0200	1	06/27/2020 22:51	WG1498753
Barium,Dissolved	0.0227		0.00778	0.0200	1	06/27/2020 17:48	WG1498732
Calcium	544		0.480	1.00	1	06/27/2020 22:51	WG1498753
Chromium	0.00317		0.00149	0.00200	1	06/27/2020 22:51	WG1498753
Chromium,Dissolved	0.00278		0.00149	0.00200	1	06/27/2020 17:48	WG1498732
Iron	0.151		0.0489	0.100	1	06/27/2020 22:51	WG1498753
Iron,Dissolved	0.0650	J	0.0489	0.100	1	06/27/2020 17:48	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:35	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:48	WG1498732
Manganese	0.332		0.00132	0.00500	1	06/27/2020 22:51	WG1498753
Manganese,Dissolved	0.336		0.00132	0.00500	1	06/27/2020 17:48	WG1498732
Potassium	48.9		0.534	2.00	1	06/27/2020 22:51	WG1498753
Selenium	0.0101		0.000657	0.00200	1	06/29/2020 04:35	WG1498753
Selenium,Dissolved	0.0102		0.000657	0.00200	1	06/27/2020 17:48	WG1498732
Sodium	319		0.630	2.00	1	06/29/2020 11:49	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.843		0.157	0.500	5	06/26/2020 09:50	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*112*			*78.0-120*		*06/26/2020 09:50*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 03:34	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 03:34	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 03:34	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 03:34	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 03:34	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 03:34	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 03:34	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 03:34	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 03:34	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 03:34	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 03:34	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 03:34	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 03:34	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 03:34	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 03:34	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 03:34	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 03:34	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 03:34	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 03:34	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 03:34	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 03:34	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 03:34	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 03:34	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 03:34	WG1497747
Isopropylbenzene	0.00144		0.000105	0.00100	1	06/24/2020 03:34	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 03:34	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 03:34	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 03:34	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 03:34	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 03:34	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 03:34	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 03:34	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 03:34	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 03:34	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 03:34	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 03:34	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 03:34	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 03:34	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 03:34	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 03:34	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 03:34	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 03:34	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 03:34	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 03:34	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 03:34	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 03:34	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 03:34	WG1497747
(S) Toluene-d8	*105*			*80.0-120*		*06/24/2020 03:34*	WG1497747
(S) 4-Bromofluorobenzene	*113*			*77.0-126*		*06/24/2020 03:34*	WG1497747
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*		*06/24/2020 03:34*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.93		0.0247	0.100	1	06/26/2020 02:39	WG1497647
(S) o-Terphenyl	*87.4*			*31.0-160*		*06/26/2020 02:39*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5200		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0662	B J	0.0500	0.100	1	06/29/2020 20:13	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1280		37.9	100	100	06/27/2020 22:20	WG1498053
Fluoride	2.40		0.320	0.750	5	06/27/2020 22:02	WG1498053
Sulfate	2140		59.4	500	100	06/27/2020 22:20	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0278		0.000735	0.00200	1	06/27/2020 22:54	WG1498753
Arsenic,Dissolved	0.0276		0.000735	0.00200	1	06/27/2020 17:51	WG1498732
Barium	0.0125	J	0.00778	0.0200	1	06/27/2020 22:54	WG1498753
Barium,Dissolved	0.0135	J	0.00778	0.0200	1	06/27/2020 17:51	WG1498732
Calcium	553		0.480	1.00	1	06/27/2020 22:54	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:54	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:51	WG1498732
Iron	U		0.0489	0.100	1	06/27/2020 22:54	WG1498753
Iron,Dissolved	U		0.0489	0.100	1	06/27/2020 17:51	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:38	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:51	WG1498732
Manganese	0.880		0.00132	0.00500	1	06/27/2020 22:54	WG1498753
Manganese,Dissolved	0.885		0.00132	0.00500	1	06/27/2020 17:51	WG1498732
Potassium	7.64		0.534	2.00	1	06/27/2020 22:54	WG1498753
Selenium	0.00995		0.000657	0.00200	1	06/29/2020 04:38	WG1498753
Selenium,Dissolved	0.00866		0.000657	0.00200	1	06/27/2020 17:51	WG1498732
Sodium	818		0.630	2.00	1	06/29/2020 11:53	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		1.57	5.00	50	06/27/2020 19:14	WG1500247
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*78.0-120*		*06/27/2020 19:14*	WG1500247

Sample Narrative:

L1231207-14 WG1500247: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.282	1.25	25	06/26/2020 04:29	WG1499327
Benzene	U		0.00235	0.0250	25	06/26/2020 04:29	WG1499327
Bromodichloromethane	U		0.00340	0.0250	25	06/26/2020 04:29	WG1499327
Bromoform	U		0.00322	0.0250	25	06/26/2020 04:29	WG1499327
Bromomethane	U		0.0151	0.125	25	06/26/2020 04:29	WG1499327
n-Butylbenzene	U		0.00393	0.0250	25	06/26/2020 04:29	WG1499327

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.00313	0.0250	25	06/26/2020 04:29	WG1499327
Carbon disulfide	U		0.00241	0.0250	25	06/26/2020 04:29	WG1499327
Carbon tetrachloride	U		0.00320	0.0250	25	06/26/2020 04:29	WG1499327
Chlorobenzene	U		0.00290	0.0250	25	06/26/2020 04:29	WG1499327
Chlorodibromomethane	U		0.00350	0.0250	25	06/26/2020 04:29	WG1499327
Chloroethane	U		0.00480	0.125	25	06/26/2020 04:29	WG1499327
Chloroform	U		0.00278	0.125	25	06/26/2020 04:29	WG1499327
Chloromethane	U		0.0240	0.0625	25	06/26/2020 04:29	WG1499327
1,2-Dibromoethane	U		0.00315	0.0250	25	06/26/2020 04:29	WG1499327
1,1-Dichloroethane	U		0.00250	0.0250	25	06/26/2020 04:29	WG1499327
1,2-Dichloroethane	U		0.00205	0.0250	25	06/26/2020 04:29	WG1499327
1,1-Dichloroethene	U		0.00470	0.0250	25	06/26/2020 04:29	WG1499327
cis-1,2-Dichloroethene	U		0.00315	0.0250	25	06/26/2020 04:29	WG1499327
trans-1,2-Dichloroethene	U		0.00373	0.0250	25	06/26/2020 04:29	WG1499327
1,2-Dichloropropane	U		0.00373	0.0250	25	06/26/2020 04:29	WG1499327
cis-1,3-Dichloropropene	U		0.00278	0.0250	25	06/26/2020 04:29	WG1499327
trans-1,3-Dichloropropene	U		0.00295	0.0250	25	06/26/2020 04:29	WG1499327
Ethylbenzene	U		0.00343	0.0250	25	06/26/2020 04:29	WG1499327
Isopropylbenzene	U		0.00263	0.0250	25	06/26/2020 04:29	WG1499327
p-Isopropyltoluene	U		0.00300	0.0250	25	06/26/2020 04:29	WG1499327
2-Butanone (MEK)	U		0.0298	0.250	25	06/26/2020 04:29	WG1499327
2-Hexanone	U		0.0197	0.250	25	06/26/2020 04:29	WG1499327
Methylene Chloride	0.0181	J	0.0107	0.125	25	06/26/2020 04:29	WG1499327
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.250	25	06/26/2020 04:29	WG1499327
Methyl tert-butyl ether	U		0.00253	0.0250	25	06/26/2020 04:29	WG1499327
Naphthalene	U		0.0250	0.125	25	06/26/2020 04:29	WG1499327
n-Propylbenzene	U		0.00248	0.0250	25	06/26/2020 04:29	WG1499327
Styrene	U		0.00295	0.0250	25	06/26/2020 04:29	WG1499327
1,1,1,2-Tetrachloroethane	U		0.00368	0.0250	25	06/26/2020 04:29	WG1499327
1,1,2,2-Tetrachloroethane	U		0.00333	0.0250	25	06/26/2020 04:29	WG1499327
Tetrachloroethene	U		0.00750	0.0250	25	06/26/2020 04:29	WG1499327
Toluene	U		0.00695	0.0250	25	06/26/2020 04:29	WG1499327
1,1,1-Trichloroethane	U		0.00373	0.0250	25	06/26/2020 04:29	WG1499327
1,1,2-Trichloroethane	U		0.00395	0.0250	25	06/26/2020 04:29	WG1499327
Trichloroethene	U		0.00475	0.0250	25	06/26/2020 04:29	WG1499327
1,2,4-Trimethylbenzene	U		0.00805	0.0250	25	06/26/2020 04:29	WG1499327
1,3,5-Trimethylbenzene	U		0.00260	0.0250	25	06/26/2020 04:29	WG1499327
Vinyl chloride	U		0.00585	0.0250	25	06/26/2020 04:29	WG1499327
o-Xylene	U		0.00435	0.0250	25	06/26/2020 04:29	WG1499327
m&p-Xylene	U		0.0107	0.0500	25	06/26/2020 04:29	WG1499327
Xylenes, Total	U		0.00435	0.0750	25	06/26/2020 04:29	WG1499327
(S) Toluene-d8	*106*			*80.0-120*		*06/26/2020 04:29*	WG1499327
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*06/26/2020 04:29*	WG1499327
(S) 1,2-Dichloroethane-d4	*94.1*			*70.0-130*		*06/26/2020 04:29*	WG1499327

Sample Narrative:

L1231207-14 WG1499327: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.01		0.247	1.00	10	06/26/2020 05:21	WG1497647
(S) o-Terphenyl	*80.5*			*31.0-160*		*06/26/2020 05:21*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	11900		56.4	200	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0816	B J	0.0500	0.100	1	06/29/2020 20:17	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4500		37.9	100	100	06/27/2020 23:13	WG1498053
Fluoride	0.900		0.0640	0.150	1	06/27/2020 22:37	WG1498053
Sulfate	3310		59.4	500	100	06/27/2020 23:13	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0299		0.000735	0.00200	1	06/27/2020 22:58	WG1498753
Arsenic,Dissolved	0.0260		0.000735	0.00200	1	06/27/2020 17:55	WG1498732
Barium	0.0168	J	0.00778	0.0200	1	06/27/2020 22:58	WG1498753
Barium,Dissolved	0.0181	J	0.00778	0.0200	1	06/27/2020 17:55	WG1498732
Calcium	575		0.480	1.00	1	06/27/2020 22:58	WG1498753
Chromium	U		0.00149	0.00200	1	06/27/2020 22:58	WG1498753
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:55	WG1498732
Iron	2.21		0.0489	0.100	1	06/27/2020 22:58	WG1498753
Iron,Dissolved	0.559		0.0489	0.100	1	06/27/2020 17:55	WG1498732
Lead	U		0.00249	0.00500	1	06/29/2020 04:42	WG1498753
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:55	WG1498732
Manganese	2.94		0.00132	0.00500	1	06/27/2020 22:58	WG1498753
Manganese,Dissolved	2.95		0.00132	0.00500	1	06/27/2020 17:55	WG1498732
Potassium	4.36		0.534	2.00	1	06/27/2020 22:58	WG1498753
Selenium	0.00271		0.000657	0.00200	1	06/29/2020 04:42	WG1498753
Selenium,Dissolved	0.00318		0.000657	0.00200	1	06/27/2020 17:55	WG1498732
Sodium	2610		3.15	10.0	5	06/29/2020 02:17	WG1498753

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.73		0.0314	0.100	1	06/26/2020 07:33	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*06/26/2020 07:33*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/26/2020 04:19	WG1499413
Benzene	U		0.0000941	0.00100	1	06/26/2020 04:19	WG1499413
Bromodichloromethane	U		0.000136	0.00100	1	06/26/2020 04:19	WG1499413
Bromoform	U		0.000129	0.00100	1	06/26/2020 04:19	WG1499413
Bromomethane	U		0.000605	0.00500	1	06/26/2020 04:19	WG1499413
n-Butylbenzene	0.000199	J	0.000157	0.00100	1	06/26/2020 04:19	WG1499413
sec-Butylbenzene	0.000265	J	0.000125	0.00100	1	06/26/2020 04:19	WG1499413
Carbon disulfide	U		0.0000962	0.00100	1	06/26/2020 04:19	WG1499413
Carbon tetrachloride	U		0.000128	0.00100	1	06/26/2020 04:19	WG1499413

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/26/2020 04:19	WG1499413
Chlorodibromomethane	U		0.000140	0.00100	1	06/26/2020 04:19	WG1499413
Chloroethane	U		0.000192	0.00500	1	06/26/2020 04:19	WG1499413
Chloroform	U		0.000111	0.00500	1	06/26/2020 04:19	WG1499413
Chloromethane	U		0.000960	0.00250	1	06/26/2020 04:19	WG1499413
1,2-Dibromoethane	U		0.000126	0.00100	1	06/26/2020 04:19	WG1499413
1,1-Dichloroethane	U		0.000100	0.00100	1	06/26/2020 04:19	WG1499413
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/26/2020 04:19	WG1499413
1,1-Dichloroethene	U		0.000188	0.00100	1	06/26/2020 04:19	WG1499413
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/26/2020 04:19	WG1499413
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/26/2020 04:19	WG1499413
1,2-Dichloropropane	U		0.000149	0.00100	1	06/26/2020 04:19	WG1499413
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/26/2020 04:19	WG1499413
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/26/2020 04:19	WG1499413
Ethylbenzene	U		0.000137	0.00100	1	06/26/2020 04:19	WG1499413
Isopropylbenzene	U		0.000105	0.00100	1	06/26/2020 04:19	WG1499413
p-Isopropyltoluene	U		0.000120	0.00100	1	06/26/2020 04:19	WG1499413
2-Butanone (MEK)	U		0.00119	0.0100	1	06/26/2020 04:19	WG1499413
2-Hexanone	U		0.000787	0.0100	1	06/26/2020 04:19	WG1499413
Methylene Chloride	U		0.000430	0.00500	1	06/26/2020 04:19	WG1499413
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/26/2020 04:19	WG1499413
Methyl tert-butyl ether	0.00242		0.000101	0.00100	1	06/26/2020 04:19	WG1499413
Naphthalene	U		0.00100	0.00500	1	06/26/2020 04:19	WG1499413
n-Propylbenzene	U		0.0000993	0.00100	1	06/26/2020 04:19	WG1499413
Styrene	U		0.000118	0.00100	1	06/26/2020 04:19	WG1499413
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/26/2020 04:19	WG1499413
1,1,2,2-Tetrachloroethane	0.000145	J	0.000133	0.00100	1	06/26/2020 04:19	WG1499413
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 04:19	WG1499413
Toluene	U		0.000278	0.00100	1	06/26/2020 04:19	WG1499413
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/26/2020 04:19	WG1499413
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/26/2020 04:19	WG1499413
Trichloroethene	U		0.000190	0.00100	1	06/26/2020 04:19	WG1499413
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/26/2020 04:19	WG1499413
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/26/2020 04:19	WG1499413
Vinyl chloride	U		0.000234	0.00100	1	06/26/2020 04:19	WG1499413
o-Xylene	U		0.000174	0.00100	1	06/26/2020 04:19	WG1499413
m&p-Xylene	U		0.000430	0.00200	1	06/26/2020 04:19	WG1499413
Xylenes, Total	U		0.000174	0.00300	1	06/26/2020 04:19	WG1499413
(S) Toluene-d8	*106*			*80.0-120*		*06/26/2020 04:19*	WG1499413
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*06/26/2020 04:19*	WG1499413
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*06/26/2020 04:19*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.91		0.0247	0.100	1	06/29/2020 05:10	WG1497647
(S) o-Terphenyl	*82.6*			*31.0-160*		*06/29/2020 05:10*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4970		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:18	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1300		37.9	100	100	06/28/2020 00:25	WG1498053
Fluoride	0.933		0.0640	0.150	1	06/28/2020 00:07	WG1498053
Sulfate	1930		59.4	500	100	06/28/2020 00:25	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0143		0.000735	0.00200	1	06/27/2020 21:43	WG1498754
Arsenic,Dissolved	0.0142		0.000735	0.00200	1	06/27/2020 17:59	WG1498732
Barium	0.0132	J	0.00778	0.0200	1	06/27/2020 21:43	WG1498754
Barium,Dissolved	0.0131	J	0.00778	0.0200	1	06/27/2020 17:59	WG1498732
Calcium	445		0.480	1.00	1	06/27/2020 21:43	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 21:43	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 17:59	WG1498732
Iron	0.199		0.0489	0.100	1	06/27/2020 21:43	WG1498754
Iron,Dissolved	0.176		0.0489	0.100	1	06/27/2020 17:59	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 21:43	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 17:59	WG1498732
Manganese	2.13	V	0.00132	0.00500	1	06/27/2020 21:43	WG1498754
Manganese,Dissolved	2.11		0.00132	0.00500	1	06/27/2020 17:59	WG1498732
Potassium	3.25		0.534	2.00	1	06/27/2020 21:43	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 21:43	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 17:59	WG1498732
Sodium	982	V	0.630	2.00	1	06/27/2020 21:43	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.931		0.0314	0.100	1	06/26/2020 07:55	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 07:55*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 04:52	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 04:52	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 04:52	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 04:52	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 04:52	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 04:52	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 04:52	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 04:52	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 04:52	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 04:52	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 04:52	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 04:52	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 04:52	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 04:52	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 04:52	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 04:52	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 04:52	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 04:52	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 04:52	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 04:52	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 04:52	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 04:52	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 04:52	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 04:52	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 04:52	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 04:52	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 04:52	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 04:52	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 04:52	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 04:52	WG1497747
Methyl tert-butyl ether	0.00136		0.000101	0.00100	1	06/24/2020 04:52	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 04:52	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 04:52	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 04:52	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 04:52	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 04:52	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 04:52	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 04:52	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 04:52	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 04:52	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 04:52	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 04:52	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 04:52	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 04:52	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 04:52	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 04:52	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 04:52	WG1497747
(S) Toluene-d8	*97.8*			*80.0-120*		*06/24/2020 04:52*	WG1497747
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*06/24/2020 04:52*	WG1497747
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*06/24/2020 04:52*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.57		0.0247	0.100	1	06/29/2020 04:49	WG1497647
(S) o-Terphenyl	*80.5*			*31.0-160*		*06/29/2020 04:49*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5380		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:19	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1420		37.9	100	100	06/28/2020 01:01	WG1498053
Fluoride	1.04		0.0640	0.150	1	06/28/2020 00:43	WG1498053
Sulfate	2140		59.4	500	100	06/28/2020 01:01	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0185		0.000735	0.00200	1	06/27/2020 21:57	WG1498754
Arsenic,Dissolved	0.0178		0.000735	0.00200	1	06/27/2020 18:02	WG1498732
Barium	0.0328		0.00778	0.0200	1	06/27/2020 21:57	WG1498754
Barium,Dissolved	0.0316		0.00778	0.0200	1	06/27/2020 18:02	WG1498732
Calcium	513		0.480	1.00	1	06/27/2020 21:57	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 21:57	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 18:02	WG1498732
Iron	0.0870	J	0.0489	0.100	1	06/27/2020 21:57	WG1498754
Iron,Dissolved	U		0.0489	0.100	1	06/27/2020 18:02	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 21:57	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:02	WG1498732
Manganese	3.19		0.00132	0.00500	1	06/27/2020 21:57	WG1498754
Manganese,Dissolved	3.21		0.00132	0.00500	1	06/27/2020 18:02	WG1498732
Potassium	3.54		0.534	2.00	1	06/27/2020 21:57	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 21:57	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 18:02	WG1498732
Sodium	984		3.15	10.0	5	06/29/2020 00:58	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.03		0.0314	0.100	1	06/26/2020 08:18	WG1499250
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*06/26/2020 08:18*	WG1499250

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 05:16	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 05:16	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 05:16	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 05:16	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 05:16	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 05:16	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 05:16	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 05:16	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 05:16	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 05:16	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 05:16	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 05:16	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 05:16	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 05:16	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 05:16	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 05:16	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 05:16	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 05:16	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 05:16	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 05:16	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 05:16	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 05:16	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 05:16	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 05:16	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 05:16	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 05:16	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 05:16	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 05:16	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 05:16	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 05:16	WG1497747
Methyl tert-butyl ether	0.00149		0.000101	0.00100	1	06/24/2020 05:16	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 05:16	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 05:16	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 05:16	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 05:16	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 05:16	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 05:16	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 05:16	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 05:16	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 05:16	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 05:16	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 05:16	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 05:16	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 05:16	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 05:16	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 05:16	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 05:16	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/24/2020 05:16*	WG1497747
(S) 4-Bromofluorobenzene	*117*			*77.0-126*		*06/24/2020 05:16*	WG1497747
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*06/24/2020 05:16*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.01		0.0247	0.100	1	06/26/2020 03:40	WG1497647
(S) o-Terphenyl	*75.8*			*31.0-160*		*06/26/2020 03:40*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3200		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:21	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1430		37.9	100	100	06/28/2020 01:37	WG1498053
Fluoride	0.732		0.0640	0.150	1	06/28/2020 01:19	WG1498053
Sulfate	2060		59.4	500	100	06/28/2020 01:37	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00119	J	0.000735	0.00200	1	06/27/2020 22:01	WG1498754
Arsenic,Dissolved	0.00118	J	0.000735	0.00200	1	06/27/2020 18:31	WG1498732
Barium	0.0219		0.00778	0.0200	1	06/27/2020 22:01	WG1498754
Barium,Dissolved	0.0199	J	0.00778	0.0200	1	06/27/2020 18:31	WG1498732
Calcium	540		0.480	1.00	1	06/27/2020 22:01	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:01	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 18:31	WG1498732
Iron	1.87		0.0489	0.100	1	06/27/2020 22:01	WG1498754
Iron,Dissolved	1.62		0.0489	0.100	1	06/27/2020 18:31	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:01	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:31	WG1498732
Manganese	1.30		0.00132	0.00500	1	06/27/2020 22:01	WG1498754
Manganese,Dissolved	1.37		0.00132	0.00500	1	06/27/2020 18:31	WG1498732
Potassium	4.01		0.534	2.00	1	06/27/2020 22:01	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:01	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 18:31	WG1498732
Sodium	831		0.630	2.00	1	06/27/2020 22:01	WG1498754

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 05:40	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 05:40	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 05:40	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 05:40	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 05:40	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 05:40	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 05:40	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 05:40	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 05:40	WG1497747
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 05:40	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 05:40	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 05:40	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 05:40	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 05:40	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 05:40	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 05:40	WG1497747

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 05:40	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 05:40	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 05:40	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 05:40	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 05:40	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 05:40	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 05:40	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 05:40	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 05:40	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 05:40	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 05:40	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 05:40	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 05:40	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 05:40	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 05:40	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 05:40	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 05:40	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 05:40	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 05:40	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 05:40	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 04:39	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 05:40	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 05:40	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 05:40	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 05:40	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 05:40	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 05:40	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 05:40	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 05:40	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 05:40	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 05:40	WG1497747
(S) Toluene-d8	*103*			*80.0-120*		*06/24/2020 05:40*	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/26/2020 04:39*	WG1499413
(S) 4-Bromofluorobenzene	*119*			*77.0-126*		*06/24/2020 05:40*	WG1497747
(S) 4-Bromofluorobenzene	*98.0*			*77.0-126*		*06/26/2020 04:39*	WG1499413
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*06/24/2020 05:40*	WG1497747
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/26/2020 04:39*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 04:00	WG1497647
(S) o-Terphenyl	*64.2*			*31.0-160*		*06/26/2020 04:00*	WG1497647

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3830		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:22	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1200		37.9	100	100	06/28/2020 02:12	WG1498053
Fluoride	0.610		0.0640	0.150	1	06/28/2020 01:55	WG1498053
Sulfate	1440		59.4	500	100	06/28/2020 02:12	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00841		0.000735	0.00200	1	06/27/2020 22:04	WG1498754
Arsenic,Dissolved	0.00780		0.000735	0.00200	1	06/27/2020 18:35	WG1498732
Barium	0.0175	J	0.00778	0.0200	1	06/27/2020 22:04	WG1498754
Barium,Dissolved	0.0156	J	0.00778	0.0200	1	06/27/2020 18:35	WG1498732
Calcium	480		0.480	1.00	1	06/27/2020 22:04	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:04	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 18:35	WG1498732
Iron	U		0.0489	0.100	1	06/27/2020 22:04	WG1498754
Iron,Dissolved	U		0.0489	0.100	1	06/27/2020 18:35	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:04	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:35	WG1498732
Manganese	0.547		0.00132	0.00500	1	06/27/2020 22:04	WG1498754
Manganese,Dissolved	0.543		0.00132	0.00500	1	06/27/2020 18:35	WG1498732
Potassium	5.52		0.534	2.00	1	06/27/2020 22:04	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:04	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 18:35	WG1498732
Sodium	563		0.630	2.00	1	06/27/2020 22:04	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 11:51	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*06/26/2020 11:51*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 06:03	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 06:03	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 06:03	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 06:03	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 06:03	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 06:03	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 06:03	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 06:03	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 06:03	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 06:03	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 06:03	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 06:03	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 06:03	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 06:03	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 06:03	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 06:03	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 06:03	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 06:03	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 06:03	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 06:03	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 06:03	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 06:03	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 06:03	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 06:03	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 06:03	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 06:03	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 06:03	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 06:03	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 06:03	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 06:03	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 06:03	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 06:03	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 06:03	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 06:03	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 06:03	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 06:03	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 05:00	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 06:03	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 06:03	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 06:03	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 06:03	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 06:03	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 06:03	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 06:03	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 06:03	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 06:03	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 06:03	WG1497747
(S) Toluene-d8	*104*			*80.0-120*		*06/24/2020 06:03*	WG1497747
(S) Toluene-d8	*108*			*80.0-120*		*06/26/2020 05:00*	WG1499413
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/24/2020 06:03*	WG1497747
(S) 4-Bromofluorobenzene	*99.2*			*77.0-126*		*06/26/2020 05:00*	WG1499413
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*06/24/2020 06:03*	WG1497747
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*06/26/2020 05:00*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 04:20	WG1497647
(S) o-Terphenyl	*63.7*			*31.0-160*		*06/26/2020 04:20*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5850		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0815	B J	0.0500	0.100	1	06/29/2020 20:27	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1640		37.9	100	100	06/28/2020 02:48	WG1498053
Fluoride	2.60		0.320	0.750	5	06/28/2020 02:30	WG1498053
Sulfate	2350		59.4	500	100	06/28/2020 02:48	WG1498053

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00374		0.000735	0.00200	1	06/27/2020 22:07	WG1498754
Arsenic,Dissolved	0.00322		0.000735	0.00200	1	06/27/2020 18:38	WG1498732
Barium	0.0202		0.00778	0.0200	1	06/27/2020 22:07	WG1498754
Barium,Dissolved	0.0186	J	0.00778	0.0200	1	06/27/2020 18:38	WG1498732
Calcium	599		0.480	1.00	1	06/27/2020 22:07	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:07	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 18:38	WG1498732
Iron	1.19		0.0489	0.100	1	06/27/2020 22:07	WG1498754
Iron,Dissolved	1.07		0.0489	0.100	1	06/27/2020 18:38	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:07	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 18:38	WG1498732
Manganese	2.06		0.00132	0.00500	1	06/27/2020 22:07	WG1498754
Manganese,Dissolved	1.98		0.00132	0.00500	1	06/27/2020 18:38	WG1498732
Potassium	3.82		0.534	2.00	1	06/27/2020 22:07	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:07	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 18:38	WG1498732
Sodium	986		3.15	10.0	5	06/29/2020 00:32	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 12:13	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*06/26/2020 12:13*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 06:27	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 06:27	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 06:27	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 06:27	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 06:27	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 06:27	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 06:27	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 06:27	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 06:27	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 06:27	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 06:27	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 06:27	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 06:27	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 06:27	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 06:27	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 06:27	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 06:27	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 06:27	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 06:27	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 06:27	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 06:27	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 06:27	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 06:27	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 06:27	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 06:27	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 06:27	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 06:27	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 06:27	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 06:27	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 06:27	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 06:27	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 06:27	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 06:27	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 06:27	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 06:27	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 06:27	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 05:21	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 06:27	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 06:27	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 06:27	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 06:27	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 06:27	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 06:27	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 06:27	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 06:27	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 06:27	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 06:27	WG1497747
(S) Toluene-d8	*107*			*80.0-120*		*06/24/2020 06:27*	WG1497747
(S) Toluene-d8	*107*			*80.0-120*		*06/26/2020 05:21*	WG1499413
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*06/24/2020 06:27*	WG1497747
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*06/26/2020 05:21*	WG1499413
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*06/24/2020 06:27*	WG1497747
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/26/2020 05:21*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.110		0.0247	0.100	1	06/26/2020 04:40	WG1497647
(S) o-Terphenyl	*116*			*31.0-160*		*06/26/2020 04:40*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5020		28.2	100	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:28	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1290		37.9	100	100	06/26/2020 08:46	WG1498060
Fluoride	0.853		0.0640	0.150	1	06/26/2020 08:29	WG1498060
Sulfate	2240		59.4	500	100	06/26/2020 08:46	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00147	J	0.000735	0.00200	1	06/27/2020 22:18	WG1498754
Arsenic,Dissolved	0.00138	J	0.000735	0.00200	1	06/27/2020 16:51	WG1498732
Barium	0.0206		0.00778	0.0200	1	06/27/2020 22:18	WG1498754
Barium,Dissolved	0.0201		0.00778	0.0200	1	06/27/2020 16:51	WG1498732
Calcium	609		0.480	1.00	1	06/27/2020 22:18	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:18	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/27/2020 16:51	WG1498732
Iron	1.85		0.0489	0.100	1	06/27/2020 22:18	WG1498754
Iron,Dissolved	1.95		0.0489	0.100	1	06/27/2020 16:51	WG1498732
Lead	U		0.00249	0.00500	1	06/27/2020 22:18	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/27/2020 16:51	WG1498732
Manganese	1.32		0.00132	0.00500	1	06/27/2020 22:18	WG1498754
Manganese,Dissolved	1.48	V	0.00132	0.00500	1	06/27/2020 16:51	WG1498732
Potassium	4.93		0.534	2.00	1	06/27/2020 22:18	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:18	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/27/2020 16:51	WG1498732
Sodium	755		0.630	2.00	1	06/27/2020 22:18	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 12:35	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*06/26/2020 12:35*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 06:51	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 06:51	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 06:51	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 06:51	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 06:51	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 06:51	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 06:51	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 06:51	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 06:51	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 06:51	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 06:51	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 06:51	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 06:51	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 06:51	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 06:51	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 06:51	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 06:51	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 06:51	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 06:51	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 06:51	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 06:51	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 06:51	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 06:51	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 06:51	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 06:51	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 06:51	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 06:51	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 06:51	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 06:51	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 06:51	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 06:51	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 06:51	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 06:51	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 06:51	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 06:51	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 06:51	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 05:42	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 06:51	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 06:51	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 06:51	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 06:51	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 06:51	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 06:51	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 06:51	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 06:51	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 06:51	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 06:51	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/24/2020 06:51*	WG1497747
(S) Toluene-d8	*107*			*80.0-120*		*06/26/2020 05:42*	WG1499413
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*06/24/2020 06:51*	WG1497747
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*06/26/2020 05:42*	WG1499413
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*06/24/2020 06:51*	WG1497747
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*06/26/2020 05:42*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/26/2020 05:00	WG1497647
(S) o-Terphenyl	*64.7*			*31.0-160*		*06/26/2020 05:00*	WG1497647

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3150		14.1	50.0	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0713	B J	0.0500	0.100	1	06/29/2020 20:31	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	585		19.0	50.0	50	06/26/2020 09:20	WG1498060
Fluoride	1.10		0.0640	0.150	1	06/26/2020 09:03	WG1498060
Sulfate	1580		29.7	250	50	06/26/2020 09:20	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000791	J	0.000735	0.00200	1	06/27/2020 22:21	WG1498754
Arsenic,Dissolved	0.000822	J	0.000735	0.00200	1	06/26/2020 18:26	WG1498733
Barium	0.0168	J	0.00778	0.0200	1	06/27/2020 22:21	WG1498754
Barium,Dissolved	0.0181	J	0.00778	0.0200	1	06/26/2020 18:26	WG1498733
Calcium	375		0.480	1.00	1	06/27/2020 22:21	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:21	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 18:26	WG1498733
Iron	0.174		0.0489	0.100	1	06/27/2020 22:21	WG1498754
Iron,Dissolved	0.102		0.0489	0.100	1	06/26/2020 18:26	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:21	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 18:26	WG1498733
Manganese	0.511		0.00132	0.00500	1	06/27/2020 22:21	WG1498754
Manganese,Dissolved	0.511		0.00132	0.00500	1	06/26/2020 18:26	WG1498733
Potassium	7.17		0.534	2.00	1	06/27/2020 22:21	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:21	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 18:26	WG1498733
Sodium	446		0.630	2.00	1	06/27/2020 22:21	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 12:57	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*78.0-120*		*06/26/2020 12:57*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 07:15	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 07:15	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 07:15	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 07:15	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 07:15	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 07:15	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 07:15	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 07:15	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 07:15	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 07:15	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 07:15	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 07:15	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 07:15	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 07:15	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 07:15	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 07:15	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 07:15	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 07:15	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 07:15	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 07:15	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 07:15	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 07:15	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 07:15	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 07:15	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 07:15	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 07:15	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 07:15	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 07:15	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 07:15	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 07:15	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 07:15	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 07:15	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 07:15	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 07:15	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 07:15	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 07:15	WG1497747
Tetrachloroethene	0.000862	B J J4	0.000300	0.00100	1	06/24/2020 07:15	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 07:15	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 07:15	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 07:15	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 07:15	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 07:15	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 07:15	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 07:15	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 07:15	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 07:15	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 07:15	WG1497747
(S) Toluene-d8	*109*			*80.0-120*		*06/24/2020 07:15*	WG1497747
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/24/2020 07:15*	WG1497747
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*06/24/2020 07:15*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/28/2020 11:46	WG1497648
(S) o-Terphenyl	*76.3*			*31.0-160*		*06/28/2020 11:46*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	12700		56.4	200	1	06/25/2020 00:16	WG1498149

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:32	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5000		37.9	100	100	06/26/2020 17:25	WG1498060
Fluoride	0.990		0.0640	0.150	1	06/26/2020 09:36	WG1498060
Sulfate	3300		59.4	500	100	06/26/2020 17:25	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00325		0.000735	0.00200	1	06/27/2020 22:25	WG1498754
Arsenic,Dissolved	0.00262		0.000735	0.00200	1	06/26/2020 18:29	WG1498733
Barium	0.0229		0.00778	0.0200	1	06/27/2020 22:25	WG1498754
Barium,Dissolved	0.0233		0.00778	0.0200	1	06/26/2020 18:29	WG1498733
Calcium	840		0.480	1.00	1	06/27/2020 22:25	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:25	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 18:29	WG1498733
Iron	3.26		0.0489	0.100	1	06/27/2020 22:25	WG1498754
Iron,Dissolved	2.66		0.0489	0.100	1	06/26/2020 18:29	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:25	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 18:29	WG1498733
Manganese	0.300		0.00132	0.00500	1	06/27/2020 22:25	WG1498754
Manganese,Dissolved	0.293		0.00132	0.00500	1	06/26/2020 18:29	WG1498733
Potassium	33.5		0.534	2.00	1	06/27/2020 22:25	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:25	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 18:29	WG1498733
Sodium	2580		3.15	10.0	5	06/29/2020 00:36	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 13:20	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*92.8*			*78.0-120*		*06/26/2020 13:20*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 07:38	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 07:38	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 07:38	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 07:38	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 07:38	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 07:38	WG1497747
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 07:38	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 07:38	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 07:38	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 07:38	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 07:38	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 07:38	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 07:38	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 07:38	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 07:38	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 07:38	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 07:38	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 07:38	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 07:38	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 07:38	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 07:38	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 07:38	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 07:38	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 07:38	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 07:38	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 07:38	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 07:38	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 07:38	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 07:38	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 07:38	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 07:38	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 07:38	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 07:38	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 07:38	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 07:38	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 07:38	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 06:02	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 07:38	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 07:38	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 07:38	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 07:38	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 07:38	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 07:38	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 07:38	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 07:38	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 07:38	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 07:38	WG1497747
(S) Toluene-d8	*104*			*80.0-120*		*06/24/2020 07:38*	WG1497747
(S) Toluene-d8	*109*			*80.0-120*		*06/26/2020 06:02*	WG1499413
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*06/24/2020 07:38*	WG1497747
(S) 4-Bromofluorobenzene	*98.7*			*77.0-126*		*06/26/2020 06:02*	WG1499413
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*06/24/2020 07:38*	WG1497747
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*06/26/2020 06:02*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/28/2020 12:08	WG1497648
(S) o-Terphenyl	*74.2*			*31.0-160*		*06/28/2020 12:08*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	18400	J3 J4	113	400	1	06/24/2020 23:51	WG1498158

Sample Narrative:
L1231207-24 WG1498158: Confirmed on reanalysis

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:33	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8800		37.9	100	100	06/26/2020 10:27	WG1498060
Fluoride	0.806		0.0640	0.150	1	06/26/2020 10:10	WG1498060
Sulfate	3210		59.4	500	100	06/26/2020 10:27	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/27/2020 22:28	WG1498754
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 18:33	WG1498733
Barium	0.0294		0.00778	0.0200	1	06/27/2020 22:28	WG1498754
Barium,Dissolved	0.0310		0.00778	0.0200	1	06/26/2020 18:33	WG1498733
Calcium	1110		2.40	5.00	5	06/29/2020 00:39	WG1498754
Chromium	0.00339		0.00149	0.00200	1	06/27/2020 22:28	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 18:33	WG1498733
Iron	1.76		0.0489	0.100	1	06/27/2020 22:28	WG1498754
Iron,Dissolved	1.11		0.0489	0.100	1	06/26/2020 18:33	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:28	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 18:33	WG1498733
Manganese	1.55		0.00132	0.00500	1	06/27/2020 22:28	WG1498754
Manganese,Dissolved	1.53		0.00132	0.00500	1	06/26/2020 18:33	WG1498733
Potassium	19.9		0.534	2.00	1	06/27/2020 22:28	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:28	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 18:33	WG1498733
Sodium	4410		3.15	10.0	5	06/29/2020 00:39	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 13:42	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*92.9*			*78.0-120*		*06/26/2020 13:42*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 08:02	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 08:02	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 08:02	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 08:02	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 08:02	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 08:02	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 08:02	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 08:02	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 08:02	WG1497747
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 08:02	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 08:02	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 08:02	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 08:02	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 08:02	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 08:02	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 08:02	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 08:02	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 08:02	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 08:02	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 08:02	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 08:02	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 08:02	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 08:02	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 08:02	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 08:02	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 08:02	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 08:02	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 08:02	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 08:02	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 08:02	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 08:02	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 08:02	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 08:02	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 08:02	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 08:02	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 08:02	WG1497747
Tetrachloroethene	U		0.000300	0.00100	1	06/26/2020 06:23	WG1499413
Toluene	U		0.000278	0.00100	1	06/24/2020 08:02	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 08:02	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 08:02	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 08:02	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 08:02	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 08:02	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 08:02	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 08:02	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 08:02	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 08:02	WG1497747
(S) Toluene-d8	*105*			*80.0-120*		*06/24/2020 08:02*	WG1497747
(S) Toluene-d8	*106*			*80.0-120*		*06/26/2020 06:23*	WG1499413
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*06/24/2020 08:02*	WG1497747
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*06/26/2020 06:23*	WG1499413
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*		*06/24/2020 08:02*	WG1497747
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*06/26/2020 06:23*	WG1499413

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/28/2020 12:31	WG1497648
(S) o-Terphenyl	*73.2*			*31.0-160*		*06/28/2020 12:31*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10700	J4	56.4	200	1	06/24/2020 23:51	WG1498158

Sample Narrative:
L1231207-25 WG1498158: Confirmed on reanalysis

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 20:34	WG1499272

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4770		37.9	100	100	06/26/2020 11:01	WG1498060
Fluoride	0.950		0.0640	0.150	1	06/26/2020 10:44	WG1498060
Sulfate	3490		59.4	500	100	06/26/2020 11:01	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0146		0.000735	0.00200	1	06/27/2020 22:31	WG1498754
Arsenic,Dissolved	0.0123		0.000735	0.00200	1	06/26/2020 18:36	WG1498733
Barium	0.0256		0.00778	0.0200	1	06/27/2020 22:31	WG1498754
Barium,Dissolved	0.0239		0.00778	0.0200	1	06/26/2020 18:36	WG1498733
Calcium	824		0.480	1.00	1	06/27/2020 22:31	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:31	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 18:36	WG1498733
Iron	8.25		0.0489	0.100	1	06/27/2020 22:31	WG1498754
Iron,Dissolved	3.04		0.0489	0.100	1	06/26/2020 18:36	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:31	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 18:36	WG1498733
Manganese	0.279		0.00132	0.00500	1	06/27/2020 22:31	WG1498754
Manganese,Dissolved	0.293		0.00132	0.00500	1	06/26/2020 18:36	WG1498733
Potassium	37.3		0.534	2.00	1	06/27/2020 22:31	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:31	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 18:36	WG1498733
Sodium	2660		3.15	10.0	5	06/29/2020 00:43	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.09		0.0314	0.100	1	06/26/2020 14:04	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*92.3*			*78.0-120*		*06/26/2020 14:04*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 08:26	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 08:26	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 08:26	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 08:26	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 08:26	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 08:26	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 08:26	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 08:26	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 08:26	WG1497747
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 08:26	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 08:26	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 08:26	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 08:26	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 08:26	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 08:26	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 08:26	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 08:26	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 08:26	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 08:26	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 08:26	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 08:26	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 08:26	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 08:26	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 08:26	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 08:26	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 08:26	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 08:26	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 08:26	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 08:26	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 08:26	WG1497747
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 08:26	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 08:26	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 08:26	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 08:26	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 08:26	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 08:26	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 08:26	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 08:26	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 08:26	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 08:26	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 08:26	WG1497747
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 08:26	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 08:26	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 08:26	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 08:26	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 08:26	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 08:26	WG1497747
(S) Toluene-d8	*103*			*80.0-120*		*06/24/2020 08:26*	WG1497747
(S) 4-Bromofluorobenzene	*116*			*77.0-126*		*06/24/2020 08:26*	WG1497747
(S) 1,2-Dichloroethane-d4	*122*			*70.0-130*		*06/24/2020 08:26*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.773		0.123	0.500	5	06/29/2020 13:00	WG1497648
(S) o-Terphenyl	*83.7*			*31.0-160*		*06/29/2020 13:00*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	11300	J4	56.4	200	1	06/24/2020 23:51	WG1498158

Sample Narrative:
L1231207-26 WG1498158: Confirmed on reanalysis

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 17:48	WG1499273

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4450		37.9	100	100	06/26/2020 12:09	WG1498060
Fluoride	1.02		0.0640	0.150	1	06/26/2020 11:52	WG1498060
Sulfate	3330		59.4	500	100	06/26/2020 12:09	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0311		0.000735	0.00200	1	06/27/2020 22:35	WG1498754
Arsenic,Dissolved	0.0281		0.000735	0.00200	1	06/26/2020 19:10	WG1498733
Barium	0.0177	J	0.00778	0.0200	1	06/27/2020 22:35	WG1498754
Barium,Dissolved	0.0163	J	0.00778	0.0200	1	06/26/2020 19:10	WG1498733
Calcium	566		0.480	1.00	1	06/27/2020 22:35	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:35	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 19:10	WG1498733
Iron	1.77		0.0489	0.100	1	06/27/2020 22:35	WG1498754
Iron,Dissolved	0.565		0.0489	0.100	1	06/26/2020 19:10	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:35	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 19:10	WG1498733
Manganese	3.10		0.00132	0.00500	1	06/27/2020 22:35	WG1498754
Manganese,Dissolved	3.08		0.00132	0.00500	1	06/26/2020 19:10	WG1498733
Potassium	4.20		0.534	2.00	1	06/27/2020 22:35	WG1498754
Selenium	0.00171	J	0.000657	0.00200	1	06/27/2020 22:35	WG1498754
Selenium,Dissolved	0.00238		0.000657	0.00200	1	06/26/2020 19:10	WG1498733
Sodium	2270		3.15	10.0	5	06/29/2020 00:46	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.10		0.0314	0.100	1	06/26/2020 14:26	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*90.8*			*78.0-120*		*06/26/2020 14:26*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 08:50	WG1497747
Benzene	U		0.0000941	0.00100	1	06/24/2020 08:50	WG1497747
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 08:50	WG1497747
Bromoform	U		0.000129	0.00100	1	06/24/2020 08:50	WG1497747
Bromomethane	U		0.000605	0.00500	1	06/24/2020 08:50	WG1497747
n-Butylbenzene	U	J4	0.000157	0.00100	1	06/24/2020 08:50	WG1497747

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U	J4	0.000125	0.00100	1	06/24/2020 08:50	WG1497747
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 08:50	WG1497747
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 08:50	WG1497747
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 08:50	WG1497747
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 08:50	WG1497747
Chloroethane	U		0.000192	0.00500	1	06/24/2020 08:50	WG1497747
Chloroform	U		0.000111	0.00500	1	06/24/2020 08:50	WG1497747
Chloromethane	U		0.000960	0.00250	1	06/24/2020 08:50	WG1497747
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 08:50	WG1497747
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 08:50	WG1497747
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 08:50	WG1497747
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 08:50	WG1497747
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 08:50	WG1497747
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 08:50	WG1497747
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 08:50	WG1497747
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 08:50	WG1497747
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 08:50	WG1497747
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 08:50	WG1497747
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 08:50	WG1497747
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 08:50	WG1497747
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 08:50	WG1497747
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 08:50	WG1497747
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 08:50	WG1497747
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 08:50	WG1497747
Methyl tert-butyl ether	0.00254		0.000101	0.00100	1	06/24/2020 08:50	WG1497747
Naphthalene	U		0.00100	0.00500	1	06/24/2020 08:50	WG1497747
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 08:50	WG1497747
Styrene	U		0.000118	0.00100	1	06/24/2020 08:50	WG1497747
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 08:50	WG1497747
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 08:50	WG1497747
Tetrachloroethene	U	J4	0.000300	0.00100	1	06/24/2020 08:50	WG1497747
Toluene	U		0.000278	0.00100	1	06/24/2020 08:50	WG1497747
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 08:50	WG1497747
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 08:50	WG1497747
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 08:50	WG1497747
1,2,4-Trimethylbenzene	0.000411	J	0.000322	0.00100	1	06/24/2020 08:50	WG1497747
1,3,5-Trimethylbenzene	U	J4	0.000104	0.00100	1	06/24/2020 08:50	WG1497747
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 08:50	WG1497747
o-Xylene	U		0.000174	0.00100	1	06/24/2020 08:50	WG1497747
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 08:50	WG1497747
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 08:50	WG1497747
(S) Toluene-d8	*101*			*80.0-120*		*06/24/2020 08:50*	WG1497747
(S) 4-Bromofluorobenzene	*122*			*77.0-126*		*06/24/2020 08:50*	WG1497747
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*06/24/2020 08:50*	WG1497747

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.72		0.0247	0.100	1	06/28/2020 22:38	WG1497648
(S) o-Terphenyl	*84.7*			*31.0-160*		*06/28/2020 22:38*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4970	J4	28.2	100	1	06/24/2020 23:51	WG1498158

Sample Narrative:
L1231207-27 WG1498158: Confirmed on reanalysis

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 17:51	WG1499273

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1290		37.9	100	100	06/26/2020 12:59	WG1498060
Fluoride	2.52		0.0640	0.150	1	06/26/2020 12:26	WG1498060
Sulfate	2260		59.4	500	100	06/26/2020 12:59	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0299		0.000735	0.00200	1	06/27/2020 22:38	WG1498754
Arsenic,Dissolved	0.0301		0.000735	0.00200	1	06/26/2020 19:14	WG1498733
Barium	0.0152	J	0.00778	0.0200	1	06/27/2020 22:38	WG1498754
Barium,Dissolved	0.0134	J	0.00778	0.0200	1	06/26/2020 19:14	WG1498733
Calcium	553		0.480	1.00	1	06/27/2020 22:38	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:38	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 19:14	WG1498733
Iron	U		0.0489	0.100	1	06/27/2020 22:38	WG1498754
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 19:14	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:38	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 19:14	WG1498733
Manganese	0.913		0.00132	0.00500	1	06/27/2020 22:38	WG1498754
Manganese,Dissolved	0.936		0.00132	0.00500	1	06/26/2020 19:14	WG1498733
Potassium	7.54		0.534	2.00	1	06/27/2020 22:38	WG1498754
Selenium	0.0100		0.000657	0.00200	1	06/27/2020 22:38	WG1498754
Selenium,Dissolved	0.00844		0.000657	0.00200	1	06/26/2020 19:14	WG1498733
Sodium	827		0.630	2.00	1	06/27/2020 22:38	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.691		0.0314	0.100	1	06/26/2020 14:48	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*90.3*			*78.0-120*		*06/26/2020 14:48*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 15:07	WG1498067
Benzene	U		0.0000941	0.00100	1	06/24/2020 15:07	WG1498067
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 15:07	WG1498067
Bromoform	U		0.000129	0.00100	1	06/24/2020 15:07	WG1498067
Bromomethane	U	J3	0.000605	0.00500	1	06/24/2020 15:07	WG1498067
n-Butylbenzene	U		0.000157	0.00100	1	06/24/2020 15:07	WG1498067

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	0.000130	J	0.000125	0.00100	1	06/24/2020 15:07	WG1498067
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 15:07	WG1498067
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 15:07	WG1498067
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 15:07	WG1498067
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 15:07	WG1498067
Chloroethane	U		0.000192	0.00500	1	06/24/2020 15:07	WG1498067
Chloroform	U		0.000111	0.00500	1	06/24/2020 15:07	WG1498067
Chloromethane	U		0.000960	0.00250	1	06/24/2020 15:07	WG1498067
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 15:07	WG1498067
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 15:07	WG1498067
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 15:07	WG1498067
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 15:07	WG1498067
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 15:07	WG1498067
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 15:07	WG1498067
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 15:07	WG1498067
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 15:07	WG1498067
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 15:07	WG1498067
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 15:07	WG1498067
Isopropylbenzene	0.000341	J	0.000105	0.00100	1	06/24/2020 15:07	WG1498067
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 15:07	WG1498067
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 15:07	WG1498067
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 15:07	WG1498067
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 15:07	WG1498067
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 15:07	WG1498067
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 15:07	WG1498067
Naphthalene	U		0.00100	0.00500	1	06/24/2020 15:07	WG1498067
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 15:07	WG1498067
Styrene	U		0.000118	0.00100	1	06/24/2020 15:07	WG1498067
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 15:07	WG1498067
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 15:07	WG1498067
Tetrachloroethene	U		0.000300	0.00100	1	06/24/2020 15:07	WG1498067
Toluene	U		0.000278	0.00100	1	06/24/2020 15:07	WG1498067
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 15:07	WG1498067
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 15:07	WG1498067
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 15:07	WG1498067
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 15:07	WG1498067
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/24/2020 15:07	WG1498067
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 15:07	WG1498067
o-Xylene	U		0.000174	0.00100	1	06/24/2020 15:07	WG1498067
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 15:07	WG1498067
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 15:07	WG1498067
(S) Toluene-d8	*102*			*80.0-120*		*06/24/2020 15:07*	WG1498067
(S) 4-Bromofluorobenzene	*94.8*			*77.0-126*		*06/24/2020 15:07*	WG1498067
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*06/24/2020 15:07*	WG1498067

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.98		0.123	0.500	5	06/29/2020 13:23	WG1497648
(S) o-Terphenyl	*96.8*			*31.0-160*		*06/29/2020 13:23*	WG1497648

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U	J4	2.82	10.0	1	06/24/2020 23:51	WG1498158

Sample Narrative:
L1231207-28 WG1498158: Confirmed on reanalysis

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	06/29/2020 17:52	WG1499273

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	06/26/2020 16:51	WG1498060
Fluoride	U		0.0640	0.150	1	06/26/2020 16:51	WG1498060
Sulfate	U		0.594	5.00	1	06/26/2020 16:51	WG1498060

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	06/27/2020 22:42	WG1498754
Arsenic,Dissolved	U		0.000735	0.00200	1	06/26/2020 19:17	WG1498733
Barium	U		0.00778	0.0200	1	06/27/2020 22:42	WG1498754
Barium,Dissolved	U		0.00778	0.0200	1	06/26/2020 19:17	WG1498733
Calcium	U		0.480	1.00	1	06/27/2020 22:42	WG1498754
Chromium	U		0.00149	0.00200	1	06/27/2020 22:42	WG1498754
Chromium,Dissolved	U		0.00149	0.00200	1	06/26/2020 19:17	WG1498733
Iron	U		0.0489	0.100	1	06/27/2020 22:42	WG1498754
Iron,Dissolved	U		0.0489	0.100	1	06/26/2020 19:17	WG1498733
Lead	U		0.00249	0.00500	1	06/27/2020 22:42	WG1498754
Lead,Dissolved	U		0.00249	0.00500	1	06/26/2020 19:17	WG1498733
Manganese	U		0.00132	0.00500	1	06/27/2020 22:42	WG1498754
Manganese,Dissolved	U		0.00132	0.00500	1	06/26/2020 19:17	WG1498733
Potassium	U		0.534	2.00	1	06/27/2020 22:42	WG1498754
Selenium	U		0.000657	0.00200	1	06/27/2020 22:42	WG1498754
Selenium,Dissolved	U		0.000657	0.00200	1	06/26/2020 19:17	WG1498733
Sodium	1.32	B J	0.630	2.00	1	06/27/2020 22:42	WG1498754

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	06/26/2020 11:29	WG1499644
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*06/26/2020 11:29*	WG1499644

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	06/24/2020 08:40	WG1497977
Benzene	U		0.0000941	0.00100	1	06/24/2020 08:40	WG1497977
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 08:40	WG1497977
Bromoform	U		0.000129	0.00100	1	06/24/2020 08:40	WG1497977
Bromomethane	U		0.000605	0.00500	1	06/24/2020 08:40	WG1497977
n-Butylbenzene	U		0.000157	0.00100	1	06/24/2020 08:40	WG1497977

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
sec-Butylbenzene	U		0.000125	0.00100	1	06/24/2020 08:40	WG1497977
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 08:40	WG1497977
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 08:40	WG1497977
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 08:40	WG1497977
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 08:40	WG1497977
Chloroethane	U		0.000192	0.00500	1	06/24/2020 08:40	WG1497977
Chloroform	U		0.000111	0.00500	1	06/24/2020 08:40	WG1497977
Chloromethane	U		0.000960	0.00250	1	06/24/2020 08:40	WG1497977
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 08:40	WG1497977
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 08:40	WG1497977
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 08:40	WG1497977
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 08:40	WG1497977
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 08:40	WG1497977
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 08:40	WG1497977
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 08:40	WG1497977
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 08:40	WG1497977
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 08:40	WG1497977
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 08:40	WG1497977
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 08:40	WG1497977
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 08:40	WG1497977
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 08:40	WG1497977
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 08:40	WG1497977
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 08:40	WG1497977
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 08:40	WG1497977
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 08:40	WG1497977
Naphthalene	U		0.00100	0.00500	1	06/24/2020 08:40	WG1497977
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 08:40	WG1497977
Styrene	U		0.000118	0.00100	1	06/24/2020 08:40	WG1497977
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 08:40	WG1497977
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 08:40	WG1497977
Tetrachloroethene	U		0.000300	0.00100	1	06/24/2020 08:40	WG1497977
Toluene	U		0.000278	0.00100	1	06/24/2020 08:40	WG1497977
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 08:40	WG1497977
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 08:40	WG1497977
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 08:40	WG1497977
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 08:40	WG1497977
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/24/2020 08:40	WG1497977
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 08:40	WG1497977
o-Xylene	U		0.000174	0.00100	1	06/24/2020 08:40	WG1497977
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 08:40	WG1497977
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 08:40	WG1497977
(S) Toluene-d8	*106*			*80.0-120*		*06/24/2020 08:40*	WG1497977
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*06/24/2020 08:40*	WG1497977
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*06/24/2020 08:40*	WG1497977

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	06/28/2020 12:53	WG1497648
(S) o-Terphenyl	*76.8*			*31.0-160*		*06/28/2020 12:53*	WG1497648

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	06/24/2020 07:58	WG1497977
Benzene	U		0.0000941	0.00100	1	06/24/2020 07:58	WG1497977
Bromodichloromethane	U		0.000136	0.00100	1	06/24/2020 07:58	WG1497977
Bromoform	U		0.000129	0.00100	1	06/24/2020 07:58	WG1497977
Bromomethane	U		0.000605	0.00500	1	06/24/2020 07:58	WG1497977
n-Butylbenzene	U		0.000157	0.00100	1	06/24/2020 07:58	WG1497977
sec-Butylbenzene	U		0.000125	0.00100	1	06/24/2020 07:58	WG1497977
Carbon disulfide	U		0.0000962	0.00100	1	06/24/2020 07:58	WG1497977
Carbon tetrachloride	U		0.000128	0.00100	1	06/24/2020 07:58	WG1497977
Chlorobenzene	U		0.000116	0.00100	1	06/24/2020 07:58	WG1497977
Chlorodibromomethane	U		0.000140	0.00100	1	06/24/2020 07:58	WG1497977
Chloroethane	U		0.000192	0.00500	1	06/24/2020 07:58	WG1497977
Chloroform	U		0.000111	0.00500	1	06/24/2020 07:58	WG1497977
Chloromethane	U		0.000960	0.00250	1	06/24/2020 07:58	WG1497977
1,2-Dibromoethane	U		0.000126	0.00100	1	06/24/2020 07:58	WG1497977
1,1-Dichloroethane	U		0.000100	0.00100	1	06/24/2020 07:58	WG1497977
1,2-Dichloroethane	U		0.0000819	0.00100	1	06/24/2020 07:58	WG1497977
1,1-Dichloroethene	U		0.000188	0.00100	1	06/24/2020 07:58	WG1497977
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	06/24/2020 07:58	WG1497977
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	06/24/2020 07:58	WG1497977
1,2-Dichloropropane	U		0.000149	0.00100	1	06/24/2020 07:58	WG1497977
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	06/24/2020 07:58	WG1497977
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	06/24/2020 07:58	WG1497977
Ethylbenzene	U		0.000137	0.00100	1	06/24/2020 07:58	WG1497977
Isopropylbenzene	U		0.000105	0.00100	1	06/24/2020 07:58	WG1497977
p-Isopropyltoluene	U		0.000120	0.00100	1	06/24/2020 07:58	WG1497977
2-Butanone (MEK)	U		0.00119	0.0100	1	06/24/2020 07:58	WG1497977
2-Hexanone	U		0.000787	0.0100	1	06/24/2020 07:58	WG1497977
Methylene Chloride	U		0.000430	0.00500	1	06/24/2020 07:58	WG1497977
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	06/24/2020 07:58	WG1497977
Methyl tert-butyl ether	U		0.000101	0.00100	1	06/24/2020 07:58	WG1497977
Naphthalene	U		0.00100	0.00500	1	06/24/2020 07:58	WG1497977
n-Propylbenzene	U		0.0000993	0.00100	1	06/24/2020 07:58	WG1497977
Styrene	U		0.000118	0.00100	1	06/24/2020 07:58	WG1497977
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	06/24/2020 07:58	WG1497977
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	06/24/2020 07:58	WG1497977
Tetrachloroethene	U		0.000300	0.00100	1	06/24/2020 07:58	WG1497977
Toluene	U		0.000278	0.00100	1	06/24/2020 07:58	WG1497977
1,1,1-Trichloroethane	U		0.000149	0.00100	1	06/24/2020 07:58	WG1497977
1,1,2-Trichloroethane	U		0.000158	0.00100	1	06/24/2020 07:58	WG1497977
Trichloroethene	U		0.000190	0.00100	1	06/24/2020 07:58	WG1497977
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	06/24/2020 07:58	WG1497977
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	06/24/2020 07:58	WG1497977
Vinyl chloride	U		0.000234	0.00100	1	06/24/2020 07:58	WG1497977
o-Xylene	U		0.000174	0.00100	1	06/24/2020 07:58	WG1497977
m&p-Xylene	U		0.000430	0.00200	1	06/24/2020 07:58	WG1497977
Xylenes, Total	U		0.000174	0.00300	1	06/24/2020 07:58	WG1497977
(S) Toluene-d8	*107*			*80.0-120*		*06/24/2020 07:58*	WG1497977
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*06/24/2020 07:58*	WG1497977
(S) 1,2-Dichloroethane-d4	*98.1*			*70.0-130*		*06/24/2020 07:58*	WG1497977

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3543583-1 06/25/20 00:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231207-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-04 06/25/20 00:16 • (DUP) R3543583-3 06/25/20 00:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4750	4710	1	0.846		5

L1231207-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-21 06/25/20 00:16 • (DUP) R3543583-4 06/25/20 00:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	5020	5060	1	0.794		5

Laboratory Control Sample (LCS)

(LCS) R3543583-2 06/25/20 00:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8850	101	85.0-115	

Method Blank (MB)

(MB) R3543550-1 06/25/20 00:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231153-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1231153-06 06/25/20 00:47 • (DUP) R3543550-3 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1270	1250	1	1.58		5

L1231207-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-03 06/25/20 00:47 • (DUP) R3543550-4 06/25/20 00:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6070	6120	1	0.820		5

Laboratory Control Sample (LCS)

(LCS) R3543550-2 06/25/20 00:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8850	101	85.0-115	

Method Blank (MB)

(MB) R3543109-1 06/24/20 23:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1231207-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-24 06/24/20 23:51 • (DUP) R3543109-3 06/24/20 23:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	18400	11600	1	45.2	J3	5

Sample Narrative:

OS: Confirmed on reanalysis

Laboratory Control Sample (LCS)

(LCS) R3543109-2 06/24/20 23:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	7020	79.8	85.0-115	J4

Method Blank (MB)

(MB) R3544823-1 06/30/20 16:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231186-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1231186-06 06/30/20 16:51 • (DUP) R3544823-3 06/30/20 16:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1231207-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-05 06/30/20 17:27 • (DUP) R3544823-7 06/30/20 17:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544823-2 06/30/20 16:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	4.13	103	90.0-110	

L1231186-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231186-15 06/30/20 17:07 • (MS) R3544823-4 06/30/20 17:08 • (MSD) R3544823-5 06/30/20 17:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.60	2.56	104	102	1	90.0-110			1.55	20

L1231186-19 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231186-19 06/30/20 17:18 • (MS) R3544823-6 06/30/20 17:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.54	102	1	90.0-110	

Method Blank (MB)

(MB) R3544473-1 06/29/20 19:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	0.0590	J	0.0500	0.100

L1231207-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-25 06/29/20 20:34 • (DUP) R3544473-6 06/29/20 20:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1231207-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-06 06/29/20 20:51 • (DUP) R3544473-7 06/29/20 20:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3544473-2 06/29/20 19:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	3.79	94.8	90.0-110	

L1231207-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-14 06/29/20 20:13 • (MS) R3544473-3 06/29/20 20:14 • (MSD) R3544473-4 06/29/20 20:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.0662	2.71	2.77	106	108	1	90.0-110			2.19	20

L1231207-21 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231207-21 06/29/20 20:28 • (MS) R3544473-5 06/29/20 20:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.52	101	1	90.0-110	

Method Blank (MB)

(MB) R3544457-1 06/29/20 17:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1231207-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-26 06/29/20 17:48 • (DUP) R3544457-3 06/29/20 17:50

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1231341-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1231341-02 06/29/20 18:17 • (DUP) R3544457-7 06/29/20 18:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.495	0.485	1	2.04		20

Laboratory Control Sample (LCS)

(LCS) R3544457-2 06/29/20 17:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	5.00	3.91	97.8	90.0-110	

L1231328-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231328-03 06/29/20 18:01 • (MS) R3544457-4 06/29/20 18:02 • (MSD) R3544457-5 06/29/20 18:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	1.51	3.62	4.02	84.4	100	1	90.0-110	J6		10.5	20

L1231328-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231328-07 06/29/20 18:08 • (MS) R3544457-6 06/29/20 18:10

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.39	95.6	1	90.0-110	

Method Blank (MB)

(MB) R3543733-1 06/27/20 15:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1231161-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-02 06/27/20 16:04 • (DUP) R3543733-5 06/27/20 16:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1231161-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1231161-10 06/27/20 16:17 • (DUP) R3543733-8 06/27/20 16:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3543733-2 06/27/20 15:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.102	102	90.0-110	

L1231161-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-01 06/27/20 16:01 • (MS) R3543733-3 06/27/20 16:02 • (MSD) R3543733-4 06/27/20 16:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0112	0.0856	0.0979	74.4	86.7	1	75.0-125	J6		13.4	20

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/27/20 16:09 • (MS) R3543733-6 06/27/20 16:12 • (MSD) R3543733-7 06/27/20 16:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.0846	0.191	0.193	106	108	1	75.0-125			1.04	20

Method Blank (MB)

(MB) R3544267-1 06/27/20 09:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231207-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-07 06/27/20 15:42 • (DUP) R3544267-5 06/27/20 16:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1430	1440	100	0.621		15
Fluoride	9.31	9.33	100	0.212	J	15
Sulfate	2180	2140	100	1.44		15

L1231207-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-11 06/27/20 19:02 • (DUP) R3544267-6 06/27/20 19:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	51.7	51.3	1	0.749		15

L1231207-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-11 06/27/20 19:38 • (DUP) R3544267-7 06/27/20 19:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	13.9	12.3	50	12.3		15
Sulfate	2580	2540	50	1.51		15

Laboratory Control Sample (LCS)

(LCS) R3544267-2 06/27/20 09:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.1	100	80.0-120	
Fluoride	8.00	8.11	101	80.0-120	
Sulfate	40.0	41.5	104	80.0-120	

L1231207-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-05 06/27/20 13:55 • (MS) R3544267-3 06/27/20 14:31 • (MSD) R3544267-4 06/27/20 14:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1260	1240	1240	0.000	0.000	1	80.0-120	E V	E V	0.0445	15
Fluoride	5.00	2.19	6.72	6.84	90.6	93.0	1	80.0-120			1.80	15
Sulfate	50.0	2010	1700	1720	0.000	0.000	1	80.0-120	E V	E V	1.51	15

L1231207-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231207-15 06/27/20 22:37 • (MS) R3544267-8 06/27/20 22:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	4270	4100	0.000	1	80.0-120	E V
Fluoride	5.00	0.900	5.19	85.8	1	80.0-120	
Sulfate	50.0	3080	2890	0.000	1	80.0-120	E V

Method Blank (MB)

(MB) R3543569-1 06/25/20 21:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1231155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1231155-01 06/25/20 22:48 • (DUP) R3543569-3 06/25/20 23:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.31	1.32	1	1.08		15

L1231155-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1231155-01 06/25/20 23:22 • (DUP) R3543569-4 06/25/20 23:39

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	976	971	20	0.433		15
Sulfate	1450	1430	20	1.18		15

L1231207-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1231207-28 06/26/20 16:51 • (DUP) R3543569-9 06/26/20 17:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3543569-2 06/25/20 21:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.1	100	80.0-120	
Fluoride	8.00	7.94	99.2	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1231155-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231155-02 06/25/20 23:55 • (MS) R3543569-5 06/26/20 00:19 • (MSD) R3543569-6 06/26/20 00:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	367	399	399	63.8	64.6	1	80.0-120	E V	E V	0.0947	15
Fluoride	5.00	2.26	6.63	6.67	87.4	88.3	1	80.0-120			0.666	15
Sulfate	50.0	2530	2480	2480	0.000	0.000	1	80.0-120	E V	E V	0.00345	15

L1231207-27 Original Sample (OS) • Matrix Spike (MS)

(OS) L1231207-27 06/26/20 12:26 • (MS) R3543569-7 06/26/20 12:42

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	1260	1250	0.000	1	80.0-120	E V
Fluoride	5.00	2.52	7.24	94.4	1	80.0-120	
Sulfate	50.0	1980	1950	0.000	1	80.0-120	E V

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3542267-1 06/24/20 08:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542267-2 06/24/20 08:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00308	103	80.0-120	

L1231284-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231284-06 06/24/20 08:46 • (MS) R3542267-3 06/24/20 08:48 • (MSD) R3542267-4 06/24/20 08:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00301	0.00317	100	106	1	75.0-125			5.18	20

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3542432-1 06/24/20 10:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury,Dissolved	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3542432-2 06/24/20 11:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury,Dissolved	0.00300	0.00292	97.3	80.0-120	

L1231593-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231593-03 06/24/20 11:53 • (MS) R3542432-3 06/24/20 11:55 • (MSD) R3542432-4 06/24/20 11:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury,Dissolved	0.00300	U	0.00295	0.00295	98.3	98.3	1	75.0-125			0.000	20

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3543336-1 06/26/20 11:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron,Dissolved	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543336-2 06/26/20 11:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron,Dissolved	1.00	0.993	99.3	80.0-120	

L1231176-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231176-16 06/26/20 11:35 • (MS) R3543336-4 06/26/20 11:41 • (MSD) R3543336-5 06/26/20 11:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron,Dissolved	1.00	U	0.982	0.990	98.2	99.0	1	75.0-125			0.792	20

Method Blank (MB)

(MB) R3543382-1 06/26/20 06:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3543382-2 06/26/20 06:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	1.01	101	80.0-120	

L1231198-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231198-04 06/26/20 06:40 • (MS) R3543382-4 06/26/20 06:45 • (MSD) R3543382-5 06/26/20 06:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	U	1.03	1.03	103	103	1	75.0-125			0.316	20

Method Blank (MB)

(MB) R3543369-1 06/26/20 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Cadmium,Dissolved	U		0.000478	0.00100
Chromium,Dissolved	U		0.00149	0.00200
Cobalt,Dissolved	U		0.000477	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200
Uranium,Dissolved	U		0.00754	0.0200
Vanadium,Dissolved	U		0.000986	0.00500

Method Blank (MB)

(MB) R3543459-1 06/26/20 14:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nickel,Dissolved	U		0.000952	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543369-2 06/26/20 11:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0508	102	80.0-120	
Barium,Dissolved	0.0500	0.0517	103	80.0-120	
Cadmium,Dissolved	0.0500	0.0518	104	80.0-120	
Chromium,Dissolved	0.0500	0.0514	103	80.0-120	
Cobalt,Dissolved	0.0500	0.0523	105	80.0-120	
Iron,Dissolved	5.00	5.13	103	80.0-120	
Lead,Dissolved	0.0500	0.0500	99.9	80.0-120	
Manganese,Dissolved	0.0500	0.0513	103	80.0-120	
Selenium,Dissolved	0.0500	0.0570	114	80.0-120	
Uranium,Dissolved	0.0500	0.0496	99.1	80.0-120	
Vanadium,Dissolved	0.0500	0.0511	102	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3543459-2 06/26/20 14:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nickel,Dissolved	0.0500	0.0506	101	80.0-120	

L1231176-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231176-25 06/26/20 11:48 • (MS) R3543369-4 06/26/20 11:55 • (MSD) R3543369-5 06/26/20 11:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	U	0.0508	0.0522	102	104	1	75.0-125			2.64	20
Barium,Dissolved	0.0500	U	0.0504	0.0500	101	99.9	1	75.0-125			0.860	20
Cadmium,Dissolved	0.0500	U	0.0527	0.0531	105	106	1	75.0-125			0.659	20
Chromium,Dissolved	0.0500	U	0.0534	0.0531	107	106	1	75.0-125			0.487	20
Cobalt,Dissolved	0.0500	U	0.0534	0.0528	107	106	1	75.0-125			1.14	20
Iron,Dissolved	5.00	U	5.23	5.17	105	103	1	75.0-125			1.16	20
Lead,Dissolved	0.0500	U	0.0501	0.0515	100	103	1	75.0-125			2.69	20
Manganese,Dissolved	0.0500	U	0.0524	0.0512	105	102	1	75.0-125			2.35	20
Selenium,Dissolved	0.0500	U	0.0567	0.0560	113	112	1	75.0-125			1.24	20
Uranium,Dissolved	0.0500	U	0.0503	0.0504	101	101	1	75.0-125			0.233	20
Vanadium,Dissolved	0.0500	U	0.0521	0.0518	104	104	1	75.0-125			0.602	20

L1231176-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231176-25 06/26/20 14:33 • (MS) R3543459-4 06/26/20 14:40 • (MSD) R3543459-5 06/26/20 14:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nickel,Dissolved	0.0500	U	0.0520	0.0551	104	110	1	75.0-125			5.72	20

Method Blank (MB)

(MB) R3543751-1 06/27/20 16:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Chromium,Dissolved	U		0.00149	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543751-2 06/27/20 16:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0481	96.3	80.0-120	
Barium,Dissolved	0.0500	0.0478	95.6	80.0-120	
Chromium,Dissolved	0.0500	0.0500	99.9	80.0-120	
Iron,Dissolved	5.00	4.96	99.2	80.0-120	
Lead,Dissolved	0.0500	0.0495	99.1	80.0-120	
Manganese,Dissolved	0.0500	0.0495	98.9	80.0-120	
Selenium,Dissolved	0.0500	0.0532	106	80.0-120	

L1231207-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-21 06/27/20 16:51 • (MS) R3543751-4 06/27/20 16:58 • (MSD) R3543751-5 06/27/20 17:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.00138	0.0469	0.0483	91.1	93.8	1	75.0-125			2.85	20
Barium,Dissolved	0.0500	0.0201	0.0699	0.0685	99.6	96.9	1	75.0-125			1.98	20
Chromium,Dissolved	0.0500	U	0.0474	0.0472	94.8	94.4	1	75.0-125			0.469	20
Iron,Dissolved	5.00	1.95	6.56	6.64	92.1	93.8	1	75.0-125			1.34	20
Lead,Dissolved	0.0500	U	0.0500	0.0500	99.9	100	1	75.0-125			0.120	20
Manganese,Dissolved	0.0500	1.48	1.46	1.49	0.000	7.52	1	75.0-125	V	V	1.62	20
Selenium,Dissolved	0.0500	U	0.0563	0.0532	113	106	1	75.0-125			5.72	20

Method Blank (MB)

(MB) R3543607-1 06/26/20 18:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic,Dissolved	U		0.000735	0.00200
Barium,Dissolved	U		0.00778	0.0200
Chromium,Dissolved	U		0.00149	0.00200
Iron,Dissolved	U		0.0489	0.100
Lead,Dissolved	U		0.00249	0.00500
Manganese,Dissolved	U		0.00132	0.00500
Selenium,Dissolved	U		0.000657	0.00200

Laboratory Control Sample (LCS)

(LCS) R3543607-2 06/26/20 18:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic,Dissolved	0.0500	0.0486	97.3	80.0-120	
Barium,Dissolved	0.0500	0.0512	102	80.0-120	
Chromium,Dissolved	0.0500	0.0494	98.8	80.0-120	
Iron,Dissolved	5.00	5.05	101	80.0-120	
Lead,Dissolved	0.0500	0.0495	99.0	80.0-120	
Manganese,Dissolved	0.0500	0.0492	98.5	80.0-120	
Selenium,Dissolved	0.0500	0.0510	102	80.0-120	

L1231361-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231361-01 06/26/20 18:12 • (MS) R3543607-4 06/26/20 18:19 • (MSD) R3543607-5 06/26/20 18:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic,Dissolved	0.0500	0.0134	0.0603	0.0637	93.8	101	1	75.0-125			5.59	20
Barium,Dissolved	0.0500	0.0757	0.128	0.133	105	114	1	75.0-125			3.61	20
Chromium,Dissolved	0.0500	U	0.0480	0.0499	96.0	99.9	1	75.0-125			3.97	20
Iron,Dissolved	5.00	4.20	8.94	9.32	94.8	103	1	75.0-125			4.24	20
Lead,Dissolved	0.0500	U	0.0511	0.0486	102	97.2	1	75.0-125			4.95	20
Manganese,Dissolved	0.0500	0.596	0.618	0.648	45.4	105	1	75.0-125	V		4.70	20
Selenium,Dissolved	0.0500	U	0.0521	0.0496	104	99.2	1	75.0-125			4.89	20

Method Blank (MB)

(MB) R3543968-1 06/27/20 21:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	0.937	J	0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3543968-2 06/27/20 21:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0484	96.8	80.0-120	
Barium	0.0500	0.0485	97.0	80.0-120	
Cadmium	0.0500	0.0538	108	80.0-120	
Calcium	5.00	5.01	100	80.0-120	
Chromium	0.0500	0.0522	104	80.0-120	
Cobalt	0.0500	0.0523	105	80.0-120	
Iron	5.00	5.14	103	80.0-120	
Lead	0.0500	0.0520	104	80.0-120	
Manganese	0.0500	0.0514	103	80.0-120	
Nickel	0.0500	0.0530	106	80.0-120	
Potassium	5.00	5.05	101	80.0-120	
Selenium	0.0500	0.0538	108	80.0-120	
Sodium	5.00	5.93	119	80.0-120	
Uranium	0.0500	0.0485	96.9	80.0-120	
Vanadium	0.0500	0.0513	103	80.0-120	

L1231207-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-03 06/27/20 21:22 • (MS) R3543968-4 06/27/20 21:29 • (MSD) R3543968-5 06/27/20 21:33

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00412	0.0509	0.0507	93.6	93.1	1	75.0-125			0.533	20
Barium	0.0500	0.0194	0.0705	0.0697	102	101	1	75.0-125			1.06	20
Cadmium	0.0500	U	0.0543	0.0536	109	107	1	75.0-125			1.26	20
Calcium	5.00	413	411	413	0.000	0.000	1	75.0-125	V	V	0.486	20
Chromium	0.0500	U	0.0498	0.0482	99.5	96.4	1	75.0-125			3.14	20
Cobalt	0.0500	U	0.0487	0.0480	97.4	96.0	1	75.0-125			1.40	20
Potassium	5.00	4.03	8.81	8.89	95.5	97.2	1	75.0-125			0.975	20
Iron	5.00	3.11	8.09	7.94	99.5	96.5	1	75.0-125			1.89	20
Lead	0.0500	U	0.0518	0.0526	104	105	1	75.0-125			1.55	20
Manganese	0.0500	1.02	1.07	1.04	86.5	33.2	1	75.0-125		V	2.53	20
Nickel	0.0500	U	0.0480	0.0474	95.9	94.9	1	75.0-125			1.07	20
Selenium	0.0500	0.000840	0.0552	0.0556	109	110	1	75.0-125			0.770	20
Sodium	5.00	1160	1140	1140	0.000	0.000	1	75.0-125	E V	E V	0.493	20
Uranium	0.0500	U	0.0554	0.0553	111	111	1	75.0-125			0.168	20
Vanadium	0.0500	U	0.0497	0.0483	99.5	96.6	1	75.0-125			2.91	20

Method Blank (MB)

(MB) R3543974-1 06/27/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	0.857	J	0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3543974-2 06/27/20 21:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0475	94.9	80.0-120	
Barium	0.0500	0.0505	101	80.0-120	
Calcium	5.00	4.85	96.9	80.0-120	
Chromium	0.0500	0.0489	97.8	80.0-120	
Iron	5.00	4.99	99.9	80.0-120	
Lead	0.0500	0.0478	95.6	80.0-120	
Manganese	0.0500	0.0488	97.6	80.0-120	
Potassium	5.00	4.95	99.0	80.0-120	
Selenium	0.0500	0.0498	99.6	80.0-120	
Sodium	5.00	5.12	102	80.0-120	

L1231207-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-16 06/27/20 21:43 • (MS) R3543974-4 06/27/20 21:50 • (MSD) R3543974-5 06/27/20 21:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.0143	0.0630	0.0615	97.4	94.4	1	75.0-125			2.43	20
Barium	0.0500	0.0132	0.0637	0.0666	101	107	1	75.0-125			4.52	20
Calcium	5.00	445	443	445	0.000	0.000	1	75.0-125	V	V	0.479	20
Chromium	0.0500	U	0.0491	0.0482	98.2	96.3	1	75.0-125			1.97	20
Potassium	5.00	3.25	8.11	8.03	97.2	95.7	1	75.0-125			0.951	20
Iron	5.00	0.199	5.24	5.00	101	95.9	1	75.0-125			4.76	20
Lead	0.0500	U	0.0512	0.0512	102	102	1	75.0-125			0.168	20

Received by OCD: 6/23/2021 4:05:29 PM

L1231207-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231207-16 06/27/20 21:43 • (MS) R3543974-4 06/27/20 21:50 • (MSD) R3543974-5 06/27/20 21:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Manganese	0.0500	2.13	2.14	2.08	24.1	0.000	1	75.0-125	V	V	2.90	20
Selenium	0.0500	U	0.0510	0.0533	102	107	1	75.0-125			4.31	20
Sodium	5.00	982	983	973	14.1	0.000	1	75.0-125	V	V	1.04	20

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3543686-2 06/26/20 03:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543686-1 06/26/20 02:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.17	112	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Method Blank (MB)

(MB) R3544265-2 06/26/20 11:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3544265-1 06/26/20 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.87	107	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*78.0-120*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3543804-2 06/27/20 09:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*93.1*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3543804-1 06/27/20 08:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.31	96.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3542987-2 06/23/20 10:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3542987-2 06/23/20 10:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.9*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542987-1 06/23/20 09:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0306	122	19.0-160	
Benzene	0.00500	0.00527	105	70.0-123	
Bromodichloromethane	0.00500	0.00531	106	75.0-120	
Bromoform	0.00500	0.00608	122	68.0-132	
Bromomethane	0.00500	0.00586	117	10.0-160	
n-Butylbenzene	0.00500	0.00466	93.2	73.0-125	
sec-Butylbenzene	0.00500	0.00463	92.6	75.0-125	
Carbon disulfide	0.00500	0.00553	111	61.0-128	
Carbon tetrachloride	0.00500	0.00539	108	68.0-126	
Chlorobenzene	0.00500	0.00640	128	80.0-121	J4
Chlorodibromomethane	0.00500	0.00624	125	77.0-125	
Chloroethane	0.00500	0.00482	96.4	47.0-150	
Chloroform	0.00500	0.00525	105	73.0-120	
Chloromethane	0.00500	0.00532	106	41.0-142	
1,2-Dibromoethane	0.00500	0.00569	114	80.0-122	
1,1-Dichloroethane	0.00500	0.00476	95.2	70.0-126	
1,2-Dichloroethane	0.00500	0.00520	104	70.0-128	
1,1-Dichloroethene	0.00500	0.00531	106	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00532	106	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00524	105	73.0-120	
1,2-Dichloropropane	0.00500	0.00479	95.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00502	100	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00524	105	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3542987-1 06/23/20 09:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00587	117	79.0-123	
2-Hexanone	0.0250	0.0267	107	67.0-149	
Isopropylbenzene	0.00500	0.00610	122	76.0-127	
p-Isopropyltoluene	0.00500	0.00487	97.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0276	110	44.0-160	
Methylene Chloride	0.00500	0.00473	94.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0280	112	68.0-142	
Methyl tert-butyl ether	0.00500	0.00461	92.2	68.0-125	
Naphthalene	0.00500	0.00525	105	54.0-135	
n-Propylbenzene	0.00500	0.00469	93.8	77.0-124	
Styrene	0.00500	0.00596	119	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00613	123	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00459	91.8	65.0-130	
Tetrachloroethene	0.00500	0.00675	135	72.0-132	J4
Toluene	0.00500	0.00580	116	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00533	107	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00592	118	80.0-120	
Trichloroethene	0.00500	0.00615	123	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00437	87.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00457	91.4	76.0-122	
Vinyl chloride	0.00500	0.00500	100	67.0-131	
Xylenes, Total	0.0150	0.0172	115	79.0-123	
o-Xylene	0.00500	0.00564	113	80.0-122	
m&p-Xylenes	0.0100	0.0116	116	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*100*	*70.0-130*	

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/23/20 16:44 • (MS) R3542987-3 06/23/20 20:47 • (MSD) R3542987-4 06/23/20 21:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	U	0.0323	0.0299	129	120	1	10.0-160			7.72	35
Benzene	0.00500	U	0.00568	0.00515	114	103	1	17.0-158			9.79	27
Bromodichloromethane	0.00500	U	0.00570	0.00520	114	104	1	31.0-150			9.17	27
Bromoform	0.00500	U	0.00631	0.00580	126	116	1	29.0-150			8.42	29
Bromomethane	0.00500	U	0.00603	0.00551	121	110	1	10.0-160			9.01	38
n-Butylbenzene	0.00500	U	0.00508	0.00450	102	90.0	1	31.0-150			12.1	30

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/23/20 16:44 • (MS) R3542987-3 06/23/20 20:47 • (MSD) R3542987-4 06/23/20 21:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.00500	U	0.00530	0.00466	106	93.2	1	33.0-155			12.9	29
Carbon disulfide	0.00500	U	0.00629	0.00565	126	113	1	10.0-156			10.7	28
Carbon tetrachloride	0.00500	U	0.00626	0.00550	125	110	1	23.0-159			12.9	28
Chlorobenzene	0.00500	U	0.00667	0.00611	133	122	1	33.0-152			8.76	27
Chlorodibromomethane	0.00500	U	0.00637	0.00591	127	118	1	37.0-149			7.49	27
Chloroethane	0.00500	U	0.00551	0.00509	110	102	1	10.0-160			7.92	30
Chloroform	0.00500	U	0.00555	0.00502	111	100	1	29.0-154			10.0	28
Chloromethane	0.00500	U	0.00574	0.00533	115	107	1	10.0-160			7.41	29
1,2-Dibromoethane	0.00500	U	0.00600	0.00533	120	107	1	34.0-147			11.8	27
1,1-Dichloroethane	0.00500	U	0.00534	0.00486	107	97.2	1	25.0-158			9.41	27
1,2-Dichloroethane	0.00500	U	0.00549	0.00497	110	99.4	1	29.0-151			9.94	27
1,1-Dichloroethene	0.00500	U	0.00621	0.00567	124	113	1	11.0-160			9.09	29
cis-1,2-Dichloroethene	0.00500	U	0.00566	0.00524	113	105	1	10.0-160			7.71	27
trans-1,2-Dichloroethene	0.00500	U	0.00601	0.00545	120	109	1	17.0-153			9.77	27
1,2-Dichloropropane	0.00500	0.000518	0.00510	0.00464	91.6	82.4	1	30.0-156			9.45	27
cis-1,3-Dichloropropene	0.00500	U	0.00487	0.00455	97.4	91.0	1	34.0-149			6.79	28
trans-1,3-Dichloropropene	0.00500	U	0.00526	0.00494	105	98.8	1	32.0-149			6.27	28
Ethylbenzene	0.00500	U	0.00624	0.00581	125	116	1	30.0-155			7.14	27
2-Hexanone	0.0250	U	0.0269	0.0250	108	100	1	21.0-160			7.32	29
Isopropylbenzene	0.00500	U	0.00669	0.00602	134	120	1	28.0-157			10.5	27
p-Isopropyltoluene	0.00500	U	0.00525	0.00471	105	94.2	1	30.0-154			10.8	29
2-Butanone (MEK)	0.0250	U	0.0276	0.0256	110	102	1	10.0-160			7.52	32
Methylene Chloride	0.00500	U	0.00497	0.00455	99.4	91.0	1	23.0-144			8.82	28
4-Methyl-2-pentanone (MIBK)	0.0250	U	0.0289	0.0264	116	106	1	29.0-160			9.04	29
Methyl tert-butyl ether	0.00500	U	0.00502	0.00445	100	89.0	1	28.0-150			12.0	29
Naphthalene	0.00500	U	0.00524	0.00474	105	94.8	1	12.0-156			10.0	35
n-Propylbenzene	0.00500	U	0.00517	0.00462	103	92.4	1	31.0-154			11.2	28
Styrene	0.00500	U	0.00606	0.00580	121	116	1	33.0-155			4.38	28
1,1,1,2-Tetrachloroethane	0.00500	U	0.00676	0.00585	135	117	1	36.0-151			14.4	29
1,1,2,2-Tetrachloroethane	0.00500	U	0.00482	0.00427	96.4	85.4	1	33.0-150			12.1	28
Tetrachloroethene	0.00500	U	0.00723	0.00686	145	137	1	10.0-160			5.25	27
Toluene	0.00500	U	0.00614	0.00555	123	111	1	26.0-154			10.1	28
1,1,1-Trichloroethane	0.00500	U	0.00629	0.00562	126	112	1	23.0-160			11.3	28
1,1,2-Trichloroethane	0.00500	U	0.00629	0.00559	126	112	1	35.0-147			11.8	27
Trichloroethene	0.00500	U	0.00674	0.00627	135	125	1	10.0-160			7.23	25
1,2,4-Trimethylbenzene	0.00500	U	0.00451	0.00414	90.2	82.8	1	26.0-154			8.55	27
1,3,5-Trimethylbenzene	0.00500	U	0.00496	0.00449	99.2	89.8	1	28.0-153			9.95	27
Vinyl chloride	0.00500	U	0.00604	0.00551	121	110	1	10.0-160			9.18	27
Xylenes, Total	0.0150	U	0.0182	0.0170	121	113	1	29.0-154			6.82	28
o-Xylene	0.00500	U	0.00574	0.00554	115	111	1	45.0-144			3.55	26

L1231161-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231161-06 06/23/20 16:44 • (MS) R3542987-3 06/23/20 20:47 • (MSD) R3542987-4 06/23/20 21:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
m&p-Xylenes	0.0100	U	0.0125	0.0115	125	115	1	43.0-146			8.33	26
(S) Toluene-d8					*111*	*110*		*80.0-120*				
(S) 4-Bromofluorobenzene					*103*	*103*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*107*	*103*		*70.0-130*				

Method Blank (MB)

(MB) R3543137-2 06/24/20 01:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	0.00254		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3543137-2 06/24/20 01:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*125*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543137-1 06/24/20 00:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0279	112	19.0-160	
Benzene	0.00500	0.00421	84.2	70.0-123	
Bromodichloromethane	0.00500	0.00493	98.6	75.0-120	
Bromoform	0.00500	0.00529	106	68.0-132	
Bromomethane	0.00500	0.00351	70.2	10.0-160	
n-Butylbenzene	0.00500	0.00340	68.0	73.0-125	J4
sec-Butylbenzene	0.00500	0.00373	74.6	75.0-125	J4
Carbon disulfide	0.00500	0.00430	86.0	61.0-128	
Carbon tetrachloride	0.00500	0.00473	94.6	68.0-126	
Chlorobenzene	0.00500	0.00433	86.6	80.0-121	
Chlorodibromomethane	0.00500	0.00512	102	77.0-125	
Chloroethane	0.00500	0.00391	78.2	47.0-150	
Chloroform	0.00500	0.00455	91.0	73.0-120	
Chloromethane	0.00500	0.00645	129	41.0-142	
1,2-Dibromoethane	0.00500	0.00502	100	80.0-122	
1,1-Dichloroethane	0.00500	0.00476	95.2	70.0-126	
1,2-Dichloroethane	0.00500	0.00532	106	70.0-128	
1,1-Dichloroethene	0.00500	0.00440	88.0	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00498	99.6	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00409	81.8	73.0-120	
1,2-Dichloropropane	0.00500	0.00440	88.0	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00418	83.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00413	82.6	78.0-124	

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Laboratory Control Sample (LCS)

(LCS) R3543137-1 06/24/20 00:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00406	81.2	79.0-123	
2-Hexanone	0.0250	0.0203	81.2	67.0-149	
Isopropylbenzene	0.00500	0.00402	80.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00388	77.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0270	108	44.0-160	
Methylene Chloride	0.00500	0.00402	80.4	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0227	90.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00453	90.6	68.0-125	
Naphthalene	0.00500	0.00338	67.6	54.0-135	
n-Propylbenzene	0.00500	0.00386	77.2	77.0-124	
Styrene	0.00500	0.00387	77.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00490	98.0	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00409	81.8	65.0-130	
Tetrachloroethene	0.00500	0.00792	158	72.0-132	J4
Toluene	0.00500	0.00424	84.8	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00499	99.8	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00479	95.8	80.0-120	
Trichloroethene	0.00500	0.00516	103	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00391	78.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00376	75.2	76.0-122	J4
Vinyl chloride	0.00500	0.00517	103	67.0-131	
Xylenes, Total	0.0150	0.0125	83.3	79.0-123	
o-Xylene	0.00500	0.00422	84.4	80.0-122	
m&p-Xylenes	0.0100	0.00826	82.6	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*104*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*122*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3542562-3 06/24/20 03:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542562-3 06/24/20 03:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylene	U		0.000430	0.00200
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3542562-1 06/24/20 02:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0235	94.0	19.0-160	
Benzene	0.00500	0.00488	97.6	70.0-123	
Bromodichloromethane	0.00500	0.00520	104	75.0-120	
Bromoform	0.00500	0.00517	103	68.0-132	
Bromomethane	0.00500	0.00489	97.8	10.0-160	
n-Butylbenzene	0.00500	0.00531	106	73.0-125	
sec-Butylbenzene	0.00500	0.00543	109	75.0-125	
Carbon disulfide	0.00500	0.00524	105	61.0-128	
Carbon tetrachloride	0.00500	0.00506	101	68.0-126	
Chlorobenzene	0.00500	0.00487	97.4	80.0-121	
Chlorodibromomethane	0.00500	0.00516	103	77.0-125	
Chloroethane	0.00500	0.00522	104	47.0-150	
Chloroform	0.00500	0.00497	99.4	73.0-120	
Chloromethane	0.00500	0.00389	77.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00505	101	80.0-122	
1,1-Dichloroethane	0.00500	0.00477	95.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00504	101	70.0-128	
1,1-Dichloroethene	0.00500	0.00532	106	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00531	106	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00521	104	73.0-120	
1,2-Dichloropropane	0.00500	0.00482	96.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00518	104	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00520	104	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3542562-1 06/24/20 02:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00518	104	79.0-123	
2-Hexanone	0.0250	0.0211	84.4	67.0-149	
Isopropylbenzene	0.00500	0.00545	109	76.0-127	
p-Isopropyltoluene	0.00500	0.00544	109	76.0-125	
2-Butanone (MEK)	0.0250	0.0208	83.2	44.0-160	
Methylene Chloride	0.00500	0.00483	96.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0212	84.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00493	98.6	68.0-125	
Naphthalene	0.00500	0.00466	93.2	54.0-135	
n-Propylbenzene	0.00500	0.00498	99.6	77.0-124	
Styrene	0.00500	0.00519	104	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00501	100	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00414	82.8	65.0-130	
Tetrachloroethene	0.00500	0.00522	104	72.0-132	
Toluene	0.00500	0.00515	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00540	108	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00486	97.2	80.0-120	
Trichloroethene	0.00500	0.00552	110	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00543	109	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00500	100	76.0-122	
Vinyl chloride	0.00500	0.00467	93.4	67.0-131	
Xylenes, Total	0.0150	0.0157	105	79.0-123	
o-Xylene	0.00500	0.00516	103	80.0-122	
m&p-Xylene	0.0100	0.0105	105	80.0-122	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*99.1*	*70.0-130*	

Method Blank (MB)

(MB) R3542256-3 06/24/20 08:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3542256-3 06/24/20 08:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylene	U		0.000430	0.00200
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542256-1 06/24/20 07:31 • (LCSD) R3542256-2 06/24/20 07:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0279	0.0284	112	114	19.0-160			1.78	27
Benzene	0.00500	0.00481	0.00509	96.2	102	70.0-123			5.66	20
Bromodichloromethane	0.00500	0.00495	0.00519	99.0	104	75.0-120			4.73	20
Bromoform	0.00500	0.00469	0.00460	93.8	92.0	68.0-132			1.94	20
Bromomethane	0.00500	0.00194	0.00261	38.8	52.2	10.0-160		J3	29.5	25
n-Butylbenzene	0.00500	0.00429	0.00459	85.8	91.8	73.0-125			6.76	20
sec-Butylbenzene	0.00500	0.00428	0.00462	85.6	92.4	75.0-125			7.64	20
Carbon disulfide	0.00500	0.00463	0.00498	92.6	99.6	61.0-128			7.28	20
Carbon tetrachloride	0.00500	0.00471	0.00500	94.2	100	68.0-126			5.97	20
Chlorobenzene	0.00500	0.00479	0.00474	95.8	94.8	80.0-121			1.05	20
Chlorodibromomethane	0.00500	0.00464	0.00508	92.8	102	77.0-125			9.05	20
Chloroethane	0.00500	0.00594	0.00579	119	116	47.0-150			2.56	20
Chloroform	0.00500	0.00490	0.00505	98.0	101	73.0-120			3.02	20
Chloromethane	0.00500	0.00415	0.00410	83.0	82.0	41.0-142			1.21	20
1,2-Dibromoethane	0.00500	0.00503	0.00469	101	93.8	80.0-122			7.00	20
1,1-Dichloroethane	0.00500	0.00476	0.00491	95.2	98.2	70.0-126			3.10	20
1,2-Dichloroethane	0.00500	0.00498	0.00508	99.6	102	70.0-128			1.99	20
1,1-Dichloroethene	0.00500	0.00443	0.00447	88.6	89.4	71.0-124			0.899	20
cis-1,2-Dichloroethene	0.00500	0.00460	0.00497	92.0	99.4	73.0-120			7.73	20
trans-1,2-Dichloroethene	0.00500	0.00485	0.00501	97.0	100	73.0-120			3.25	20
1,2-Dichloropropane	0.00500	0.00480	0.00485	96.0	97.0	77.0-125			1.04	20
cis-1,3-Dichloropropene	0.00500	0.00503	0.00517	101	103	80.0-123			2.75	20
trans-1,3-Dichloropropene	0.00500	0.00473	0.00474	94.6	94.8	78.0-124			0.211	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3542256-1 06/24/20 07:31 • (LCSD) R3542256-2 06/24/20 07:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00471	0.00490	94.2	98.0	79.0-123			3.95	20
2-Hexanone	0.0250	0.0226	0.0226	90.4	90.4	67.0-149			0.000	20
Isopropylbenzene	0.00500	0.00441	0.00456	88.2	91.2	76.0-127			3.34	20
p-Isopropyltoluene	0.00500	0.00428	0.00456	85.6	91.2	76.0-125			6.33	20
2-Butanone (MEK)	0.0250	0.0226	0.0238	90.4	95.2	44.0-160			5.17	20
Methylene Chloride	0.00500	0.00484	0.00502	96.8	100	67.0-120			3.65	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0254	0.0254	102	102	68.0-142			0.000	20
Methyl tert-butyl ether	0.00500	0.00481	0.00527	96.2	105	68.0-125			9.13	20
Naphthalene	0.00500	0.00422	0.00415	84.4	83.0	54.0-135			1.67	20
n-Propylbenzene	0.00500	0.00470	0.00476	94.0	95.2	77.0-124			1.27	20
Styrene	0.00500	0.00469	0.00453	93.8	90.6	73.0-130			3.47	20
1,1,1,2-Tetrachloroethane	0.00500	0.00489	0.00504	97.8	101	75.0-125			3.02	20
1,1,2,2-Tetrachloroethane	0.00500	0.00450	0.00473	90.0	94.6	65.0-130			4.98	20
Tetrachloroethene	0.00500	0.00477	0.00478	95.4	95.6	72.0-132			0.209	20
Toluene	0.00500	0.00444	0.00460	88.8	92.0	79.0-120			3.54	20
1,1,1-Trichloroethane	0.00500	0.00493	0.00520	98.6	104	73.0-124			5.33	20
1,1,2-Trichloroethane	0.00500	0.00459	0.00512	91.8	102	80.0-120			10.9	20
Trichloroethene	0.00500	0.00524	0.00540	105	108	78.0-124			3.01	20
1,2,4-Trimethylbenzene	0.00500	0.00443	0.00462	88.6	92.4	76.0-121			4.20	20
1,3,5-Trimethylbenzene	0.00500	0.00485	0.00492	97.0	98.4	76.0-122			1.43	20
Vinyl chloride	0.00500	0.00447	0.00471	89.4	94.2	67.0-131			5.23	20
Xylenes, Total	0.0150	0.0138	0.0143	92.0	95.3	79.0-123			3.56	20
o-Xylene	0.00500	0.00450	0.00466	90.0	93.2	80.0-122			3.49	20
m&p-Xylene	0.0100	0.00935	0.00963	93.5	96.3	80.0-122			2.95	20
(S) Toluene-d8				*103*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.6*	*94.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*110*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3543277-2 06/26/20 02:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543277-2 06/26/20 02:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3543277-1 06/26/20 02:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0267	107	19.0-160	
Benzene	0.00500	0.00437	87.4	70.0-123	
Bromodichloromethane	0.00500	0.00467	93.4	75.0-120	
Bromoform	0.00500	0.00491	98.2	68.0-132	
Bromomethane	0.00500	0.00540	108	10.0-160	
n-Butylbenzene	0.00500	0.00388	77.6	73.0-125	
sec-Butylbenzene	0.00500	0.00406	81.2	75.0-125	
Carbon disulfide	0.00500	0.00385	77.0	61.0-128	
Carbon tetrachloride	0.00500	0.00496	99.2	68.0-126	
Chlorobenzene	0.00500	0.00514	103	80.0-121	
Chlorodibromomethane	0.00500	0.00537	107	77.0-125	
Chloroethane	0.00500	0.00481	96.2	47.0-150	
Chloroform	0.00500	0.00449	89.8	73.0-120	
Chloromethane	0.00500	0.00519	104	41.0-142	
1,2-Dibromoethane	0.00500	0.00531	106	80.0-122	
1,1-Dichloroethane	0.00500	0.00470	94.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00492	98.4	70.0-128	
1,1-Dichloroethene	0.00500	0.00470	94.0	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00496	99.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00475	95.0	73.0-120	
1,2-Dichloropropane	0.00500	0.00477	95.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00446	89.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00436	87.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3543277-1 06/26/20 02:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00468	93.6	79.0-123	
2-Hexanone	0.0250	0.0222	88.8	67.0-149	
Isopropylbenzene	0.00500	0.00451	90.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00429	85.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0249	99.6	44.0-160	
Methylene Chloride	0.00500	0.00413	82.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0241	96.4	68.0-142	
Methyl tert-butyl ether	0.00500	0.00428	85.6	68.0-125	
Naphthalene	0.00500	0.00443	88.6	54.0-135	
n-Propylbenzene	0.00500	0.00397	79.4	77.0-124	
Styrene	0.00500	0.00455	91.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00525	105	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00409	81.8	65.0-130	
Tetrachloroethene	0.00500	0.00531	106	72.0-132	
Toluene	0.00500	0.00467	93.4	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00490	98.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00507	101	80.0-120	
Trichloroethene	0.00500	0.00518	104	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00395	79.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00401	80.2	76.0-122	
Vinyl chloride	0.00500	0.00471	94.2	67.0-131	
Xylenes, Total	0.0150	0.0143	95.3	79.0-123	
o-Xylene	0.00500	0.00468	93.6	80.0-122	
m&p-Xylenes	0.0100	0.00966	96.6	80.0-122	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*95.8*	*70.0-130*	

L1231366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231366-01 06/26/20 06:11 • (MS) R3543277-3 06/26/20 08:33 • (MSD) R3543277-4 06/26/20 08:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	U	0.157	0.156	126	125	5	10.0-160			0.639	35
Benzene	0.0250	U	0.0270	0.0280	108	112	5	17.0-158			3.64	27
Bromodichloromethane	0.0250	U	0.0274	0.0284	110	114	5	31.0-150			3.58	27
Bromoform	0.0250	U	0.0292	0.0297	117	119	5	29.0-150			1.70	29
Bromomethane	0.0250	U	0.0343	0.0353	137	141	5	10.0-160			2.87	38
n-Butylbenzene	0.0250	U	0.0243	0.0245	97.2	98.0	5	31.0-150			0.820	30

L1231366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231366-01 06/26/20 06:11 • (MS) R3543277-3 06/26/20 08:33 • (MSD) R3543277-4 06/26/20 08:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.0250	U	0.0258	0.0261	103	104	5	33.0-155			1.16	29
Carbon disulfide	0.0250	U	0.0240	0.0259	96.0	104	5	10.0-156			7.62	28
Carbon tetrachloride	0.0250	U	0.0302	0.0313	121	125	5	23.0-159			3.58	28
Chlorobenzene	0.0250	U	0.0309	0.0319	124	128	5	33.0-152			3.18	27
Chlorodibromomethane	0.0250	U	0.0315	0.0317	126	127	5	37.0-149			0.633	27
Chloroethane	0.0250	U	0.0301	0.0304	120	122	5	10.0-160			0.992	30
Chloroform	0.0250	U	0.0265	0.0270	106	108	5	29.0-154			1.87	28
Chloromethane	0.0250	U	0.0281	0.0296	112	118	5	10.0-160			5.20	29
1,2-Dibromoethane	0.0250	U	0.0308	0.0316	123	126	5	34.0-147			2.56	27
1,1-Dichloroethane	0.0250	U	0.0276	0.0292	110	117	5	25.0-158			5.63	27
1,2-Dichloroethane	0.0250	U	0.0284	0.0292	114	117	5	29.0-151			2.78	27
1,1-Dichloroethene	0.0250	U	0.0255	0.0233	102	93.2	5	11.0-160			9.02	29
cis-1,2-Dichloroethene	0.0250	U	0.0299	0.0310	120	124	5	10.0-160			3.61	27
trans-1,2-Dichloroethene	0.0250	U	0.0285	0.0299	114	120	5	17.0-153			4.79	27
1,2-Dichloropropane	0.0250	U	0.0282	0.0287	113	115	5	30.0-156			1.76	27
cis-1,3-Dichloropropene	0.0250	U	0.0257	0.0268	103	107	5	34.0-149			4.19	28
trans-1,3-Dichloropropene	0.0250	U	0.0255	0.0264	102	106	5	32.0-149			3.47	28
Ethylbenzene	0.0250	U	0.0297	0.0306	119	122	5	30.0-155			2.99	27
2-Hexanone	0.125	U	0.133	0.135	106	108	5	21.0-160			1.49	29
Isopropylbenzene	0.0250	U	0.0284	0.0291	114	116	5	28.0-157			2.43	27
p-Isopropyltoluene	0.0250	U	0.0264	0.0275	106	110	5	30.0-154			4.08	29
2-Butanone (MEK)	0.125	U	0.140	0.152	112	122	5	10.0-160			8.22	32
Methylene Chloride	0.0250	0.00346	0.0258	0.0233	89.4	79.4	5	23.0-144			10.2	28
4-Methyl-2-pentanone (MIBK)	0.125	U	0.143	0.144	114	115	5	29.0-160			0.697	29
Methyl tert-butyl ether	0.0250	U	0.0228	0.0249	91.2	99.6	5	28.0-150			8.81	29
Naphthalene	0.0250	U	0.0253	0.0261	101	104	5	12.0-156			3.11	35
n-Propylbenzene	0.0250	U	0.0245	0.0248	98.0	99.2	5	31.0-154			1.22	28
Styrene	0.0250	U	0.0275	0.0287	110	115	5	33.0-155			4.27	28
1,1,1,2-Tetrachloroethane	0.0250	U	0.0330	0.0332	132	133	5	36.0-151			0.604	29
1,1,2,2-Tetrachloroethane	0.0250	U	0.0239	0.0250	95.6	100	5	33.0-150			4.50	28
Tetrachloroethene	0.0250	U	0.0337	0.0338	135	135	5	10.0-160			0.296	27
Toluene	0.0250	U	0.0277	0.0284	111	114	5	26.0-154			2.50	28
1,1,1-Trichloroethane	0.0250	U	0.0297	0.0292	119	117	5	23.0-160			1.70	28
1,1,2-Trichloroethane	0.0250	U	0.0294	0.0309	118	124	5	35.0-147			4.98	27
Trichloroethene	0.0250	U	0.0319	0.0328	128	131	5	10.0-160			2.78	25
1,2,4-Trimethylbenzene	0.0250	U	0.0240	0.0245	96.0	98.0	5	26.0-154			2.06	27
1,3,5-Trimethylbenzene	0.0250	U	0.0237	0.0248	94.8	99.2	5	28.0-153			4.54	27
Vinyl chloride	0.0250	U	0.0310	0.0317	124	127	5	10.0-160			2.23	27
Xylenes, Total	0.0750	U	0.0906	0.0914	121	122	5	29.0-154			0.879	28
o-Xylene	0.0250	U	0.0291	0.0292	116	117	5	45.0-144			0.343	26

L1231366-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1231366-01 06/26/20 06:11 • (MS) R3543277-3 06/26/20 08:33 • (MSD) R3543277-4 06/26/20 08:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
m&p-Xylenes	0.0500	U	0.0615	0.0622	123	124	5	43.0-146			1.13	26
(S) Toluene-d8					*106*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*106*	*104*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*95.9*	*97.2*		*70.0-130*				

Sample Narrative:

OS: Lowest possible dilution due to sample foaming.

Method Blank (MB)

(MB) R3543296-3 06/26/20 02:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3543296-3 06/26/20 02:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543296-1 06/26/20 00:51 • (LCSD) R3543296-2 06/26/20 01:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0248	0.0194	99.2	77.6	19.0-160			24.4	27
Benzene	0.00500	0.00530	0.00547	106	109	70.0-123			3.16	20
Bromodichloromethane	0.00500	0.00495	0.00512	99.0	102	75.0-120			3.38	20
Bromoform	0.00500	0.00426	0.00431	85.2	86.2	68.0-132			1.17	20
Bromomethane	0.00500	0.00457	0.00450	91.4	90.0	10.0-160			1.54	25
n-Butylbenzene	0.00500	0.00464	0.00463	92.8	92.6	73.0-125			0.216	20
sec-Butylbenzene	0.00500	0.00485	0.00514	97.0	103	75.0-125			5.81	20
Carbon disulfide	0.00500	0.00477	0.00421	95.4	84.2	61.0-128			12.5	20
Carbon tetrachloride	0.00500	0.00500	0.00541	100	108	68.0-126			7.88	20
Chlorobenzene	0.00500	0.00544	0.00556	109	111	80.0-121			2.18	20
Chlorodibromomethane	0.00500	0.00480	0.00495	96.0	99.0	77.0-125			3.08	20
Chloroethane	0.00500	0.00517	0.00492	103	98.4	47.0-150			4.96	20
Chloroform	0.00500	0.00495	0.00526	99.0	105	73.0-120			6.07	20
Chloromethane	0.00500	0.00648	0.00613	130	123	41.0-142			5.55	20
1,2-Dibromoethane	0.00500	0.00521	0.00521	104	104	80.0-122			0.000	20
1,1-Dichloroethane	0.00500	0.00598	0.00630	120	126	70.0-126			5.21	20
1,2-Dichloroethane	0.00500	0.00538	0.00544	108	109	70.0-128			1.11	20
1,1-Dichloroethene	0.00500	0.00506	0.00523	101	105	71.0-124			3.30	20
cis-1,2-Dichloroethene	0.00500	0.00491	0.00512	98.2	102	73.0-120			4.19	20
trans-1,2-Dichloroethene	0.00500	0.00506	0.00516	101	103	73.0-120			1.96	20
1,2-Dichloropropane	0.00500	0.00608	0.00616	122	123	77.0-125			1.31	20
cis-1,3-Dichloropropene	0.00500	0.00533	0.00539	107	108	80.0-123			1.12	20
trans-1,3-Dichloropropene	0.00500	0.00514	0.00512	103	102	78.0-124			0.390	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543296-1 06/26/20 00:51 • (LCSD) R3543296-2 06/26/20 01:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00502	0.00510	100	102	79.0-123			1.58	20
2-Hexanone	0.0250	0.0300	0.0299	120	120	67.0-149			0.334	20
Isopropylbenzene	0.00500	0.00457	0.00494	91.4	98.8	76.0-127			7.78	20
p-Isopropyltoluene	0.00500	0.00495	0.00500	99.0	100	76.0-125			1.01	20
2-Butanone (MEK)	0.0250	0.0323	0.0297	129	119	44.0-160			8.39	20
Methylene Chloride	0.00500	0.00518	0.00545	104	109	67.0-120			5.08	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0305	0.0301	122	120	68.0-142			1.32	20
Methyl tert-butyl ether	0.00500	0.00522	0.00513	104	103	68.0-125			1.74	20
Naphthalene	0.00500	0.00492	0.00465	98.4	93.0	54.0-135			5.64	20
n-Propylbenzene	0.00500	0.00527	0.00546	105	109	77.0-124			3.54	20
Styrene	0.00500	0.00501	0.00508	100	102	73.0-130			1.39	20
1,1,1,2-Tetrachloroethane	0.00500	0.00510	0.00537	102	107	75.0-125			5.16	20
1,1,2,2-Tetrachloroethane	0.00500	0.00598	0.00576	120	115	65.0-130			3.75	20
Tetrachloroethene	0.00500	0.00465	0.00490	93.0	98.0	72.0-132			5.24	20
Toluene	0.00500	0.00513	0.00538	103	108	79.0-120			4.76	20
1,1,1-Trichloroethane	0.00500	0.00497	0.00552	99.4	110	73.0-124			10.5	20
1,1,2-Trichloroethane	0.00500	0.00517	0.00531	103	106	80.0-120			2.67	20
Trichloroethene	0.00500	0.00507	0.00538	101	108	78.0-124			5.93	20
1,2,4-Trimethylbenzene	0.00500	0.00491	0.00500	98.2	100	76.0-121			1.82	20
1,3,5-Trimethylbenzene	0.00500	0.00506	0.00521	101	104	76.0-122			2.92	20
Vinyl chloride	0.00500	0.00561	0.00561	112	112	67.0-131			0.000	20
Xylenes, Total	0.0150	0.0151	0.0157	101	105	79.0-123			3.90	20
o-Xylene	0.00500	0.00497	0.00528	99.4	106	80.0-122			6.05	20
m&p-Xylenes	0.0100	0.0101	0.0104	101	104	80.0-122			2.93	20
(S) Toluene-d8				*106*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.1*	*97.2*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*108*	*108*	*70.0-130*				

Method Blank (MB)

(MB) R3543222-1 06/26/20 01:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*72.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543222-2 06/26/20 02:24 • (LCSD) R3543222-3 06/26/20 02:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.36	1.41	90.7	94.0	50.0-150			3.61	20
(S) o-Terphenyl				*91.5*	*95.0*	*31.0-160*				

Method Blank (MB)

(MB) R3543273-1 06/25/20 22:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*54.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543273-2 06/25/20 22:57 • (LCSD) R3543273-3 06/25/20 23:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.25	1.32	83.3	88.0	50.0-150			5.45	20
(S) o-Terphenyl				*90.0*	*94.0*	*31.0-160*				

Method Blank (MB)

(MB) R3543849-1 06/27/20 19:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*75.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3543849-2 06/27/20 19:51 • (LCSD) R3543849-3 06/27/20 20:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.41	1.38	94.0	92.0	50.0-150			2.15	20
(S) o-Terphenyl				*84.5*	*81.5*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Received by OCD: 6/23/2021 4:05:29 PM

DAY 2

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-6A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-85~~ (LNAPL)	Grab	GW				10	X	X	X	X	X	X						
MW-86	Grab	GW		6/17/20	1415	11	X	X	X		X	X	X	X				01
~~MW-120~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-121~~	Grab	GW				10	X	X	X	X	X	X						
MW-84	Grab	GW		6/17/20	1330	10	X	X	X	X	X	X						02
MW-122	Grab	GW		6/17/20	940	10	X	X	X	X	X	X						03
MW-81	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						04
MW-80	Grab	GW		6/17/20	1110	10	X	X	X	X	X	X						05
MW-79	Grab	GW		6/17/20	1155	10	X	X	X	X	X	X						06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
___ UPS ✓ FedEx ___ Courier ___ _____

Tracking #

Relinquished by : (Signature) Scott Ude — Date: 6/17/20 — Time: 1700
Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:
Received by: (Signature)

Relinquished by : (Signature) — Date: — Time:
Received for lab by: (Signature) Marley Mc — Date: 6/19/20 — Time: 845

Trip Blank Received: Yes / No — HCL / MeoH — TSP
Temp: 4.7°C — Bottles Received: 179
S.I.=.4

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: ___NP ✓Y ___N
COC Signed/Accurate: ___Y ___N
Bottles arrive intact: ___Y ___N
Correct bottles used: ___Y ___N
Sufficient volume sent: ___Y ___N
If Applicable
VOA Zero Headspace: ___Y ___N
Preservation Correct/Checked: ___Y ___N

Chain of Custody Page 1 of 6

Pace Analytical*
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123207
T# 1092
Acctnum: TRCATX
Template: T133265
Prelogin: P763440
TSR: 526
PB:
Shipped Via:

Released to Imaging: 11/21/2023 10:16:55 AM

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Chain of Custody Page 2 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 123724

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-82	Grab	GW		6/17/20	1245	10	X	X	X	X	X	X						07
~~MW-74~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-73~~	Grab	GW				10	X	X	X	X	X	X						
MW-2A	Grab	GW		6/17/20	855	10	X	X	X	X	X	X						08
~~MW-72~~	Grab	GW				10	X	X	X	X	X	X						
~~OCD-6~~	Grab	GW				10	X	X	X	X	X	X						
~~OCD-7AR~~	Grab	GW				10	X	X	X	X	X	X						
MW-76	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X						09
MW-77	Grab	GW		6/17/20	1410	10	X	X	X	X	X	X						10
MW-78	Grab	GW		6/17/20	1455	10	X	X	X	X	X	X						11

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by : (Signature) Scott Ude	Date: 6/17/20	Time: 1700	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.7 °C Bottles Received: 17
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Hayley Mc	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 6

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123707

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
MW-75	Grab	GW		6/17/20	1540	10	X	X	X	X	X	X						12
MW-83	Grab	GW		6/17/20	1240	10	X	X	X	X	X	X						13
MW-3	Grab	GW		6/17/20	1140	10	X	X	X	X	X	X						14
~~MW-88~~	Grab	GW				10	X	X	X	X	X	X						~~16~~
MW-22A	Grab	GW		6/17/20	1025	10	X	X	X	X	X	X						15
MW-10	Grab	GW		6/17/20	940	10	X	X	X	X	X	X						16
MW-123	Grab	GW		6/17/20	855	10	X	X	X	X	X	X						17
~~MW-4A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-5A~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-7A~~	Grab	GW				10	X	X	X	X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N

Relinquished by : (Signature) Scott Ude	Date: 6/17/20	Time: 1700	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.5 °C Bottles Received: 17
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123801

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~OCD-8A~~	Grab	GW				11	X	X	X		X	X	X	X				
MW-1R	Grab	GW		6/17/20	1000	8	X	X		X	X	X						10
MW-15	Grab	GW		6/17/20	1045	10	X	X	X	X	X	X						19
OCD-1R	Grab	GW		6/17/20	1415	10	X	X	X	X	X	X						20
OCD-2A	Grab	GW		6/17/20	1325	10	X	X	X	X	X	X						21
OCD-3	Grab	GW		6/17/20	1145	10	X	X	X	X	X	X						22
OCD-4	Grab	GW		6/17/20	1055	10	X	X	X	X	X	X						23
MW-11A	Grab	GW		6/17/20	1235	10	X	X	X	X	X	X						24
OCD-5	Grab	GW		6/17/20	1010	10	X	X	X	X	X	X						28
~~MW-87~~	Grab	GW				8	X	X		X	X	X						

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Scott Ude	6/17/20	1700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.4 °C Bottles Received: 179
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123107

Table #

Acctnum: **TRCATX**
Template: **T133265**
Prelogin: **P763440**
TSR: **526**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
~~MW-18A~~	Grab	GW				9	X	X			X	X	X	X				
~~MW-70~~	Grab	GW				10	X	X	X	X	X	X						
~~MW-124~~	Grab	GW				10	X	X	X	X	X	X						
~~DUP-EP-01~~	Grab	GW				10	X	X	X	X	X	X						
DUP-EP-02	Grab	GW		6/17/20	1000	10	X	X	X	X	X	X						26
DUP-EP-03	Grab	GW		6/17/20	1100	10	X	X	X	X	X	X						27
~~EB-EP-01~~	Grab	GW				10	X	X	X	X	X	X						
~~EB-EP-02~~	Grab	GW				10	X	X	X	X	X	X						
~~EB-EP-03~~	Grab	GW				10	X	X	X	X	X	X						
EB-EP-04	Grab	GW		6/17/20	1210	10	X	X	X	X	X	X						28

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles Arrive Intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: 4.1 °C Bottles Received: 17
5-1-E-4

Date: 6/19/20 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: **Julie Speer**

Email To: **jspeer@trccompanies.com**

Project Description: **EP Spring 2020**

City/State Collected: **Artesia, NM**

Phone: **512-684-3170**
Fax:

Client Project # **330538.0000.0000**

Lab Project # **TRCATX-EP**

Collected by (print): **Scott Ude/HMI Team**

Site/Facility ID # **EP (Navajo - Artesia)**

P.O. # **150726**

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 6 of 6

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 123127

Table #

Acctnum: TRCATX

Template: T133265

Prelogin: P763440

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC	DRO	GRO	Total/Dissolved Short List Metals	Cations (from "total metals" bottle)	Anions,NO2NO3, TDS	Total/Dissolved Long List Metals	Cyanide	SVOCs (8270)	EDB (8011)	Remarks	Sample # (lab only)
Trip Blank-EP-01	Grab	GW				1	X											
~~Trip Blank-EP-02~~	Grab	GW				1	X											
Trip Blank-EP-03	Grab	GW		6/17/20	—	1	X											29
~~Trip Blank-EP-04~~	Grab	GW				1	X											

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Dissolved metals field-filtered.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	6/17/20	1700	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No HCL / MeoH TBR

Temp: 4.1 °C Bottles Received: 19

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Date: 6/19/20 Time: 845

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

FedEx Tracking #:	Corresponding temp	
1663 5756 9467	4.1 - 0.1 = 4.0	HM A7
1676 2755 8222	0.9 - .1 = 0.8	
1663 5756 9732	0.4 - .1 = 0.3	
9489	1.3 + .1 = 1.4	MP A3
1676 2755 8233	0.5 - .1 = 0.4	HM A7
1663 5756 9835	1.1 + .1 = 1.2	MP A3
9412	1.9 - .1 = 1.8	HM A7
9490	1.1 - .1 = 1.0	
1676 2755 8211	1.2 - .1 = 1.1	
1203 5745 6051	1.5 - .1 = 1.4	
1663 5756 1054	1.5 - .1 = 1.4	
1087	1.7 - .1 = 1.6	
1043	0.8 - .1 = 0.7	
1065	0.3 - .1 = 0.2	
1076	1.0 - .1 = 0.9	
9478	3.7 - .1 = 3.6	
9721	0.3 - .1 = 0.2	
9798	1.2 - .1 = 1.1	
4492 6230 1294	1.5 - .1 = 1.4	
1203 5785 6040	1.1 - .1 = 1.0	
1663 5756 9423	1.5 - .1 = 1.4	
No Tracking #	1.6 - .1 = 1.5	KI A7

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Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 21, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1271213
Samples Received:	10/08/2020
Project Number:	403125.0000.0000.
Description:	New Wells - Fall 2020
Site:	(NAVAJO - ARTESIA)
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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MW-145 L1271213-01 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 11:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559818	1	10/16/20 09:47	10/16/20 09:47	ADM	Mt. Juliet, TN

MW-146 L1271213-02 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 11:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559818	1	10/16/20 10:07	10/16/20 10:07	ADM	Mt. Juliet, TN

MW-147 L1271213-03 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 10:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559818	1	10/16/20 10:27	10/16/20 10:27	ADM	Mt. Juliet, TN

MW-148 L1271213-04 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 09:40
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559818	1	10/16/20 10:48	10/16/20 10:48	ADM	Mt. Juliet, TN

DUP-01 L1271213-05 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 10:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559818	1	10/16/20 11:08	10/16/20 11:08	ADM	Mt. Juliet, TN

EB-01 L1271213-06 GW

Collected by: SU / HMI Team
Collected date/time: 10/06/20 11:35
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560531	1	10/16/20 15:39	10/16/20 15:39	JHH	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

R1 - Field chain-of-custody documentation;

R2 - Sample identification cross-reference;

R3 - Test reports (analytical data sheets) for each environmental sample that includes:

a. Items consistent with NELAC Chapter 5,

b. dilution factors,

c. preparation methods,

d. cleanup methods, and

e. if required for the project, tentatively identified compounds (TICs).

R4 - Surrogate recovery data including:

a. Calculated recovery (%R), and

b. The laboratory's surrogate QC limits.

R5 - Test reports/summary forms for blank samples;

R6 - Test reports/summary forms for laboratory control samples (LCSs) including:

a. LCS spiking amounts,

b. Calculated %R for each analyte, and

c. The laboratory's LCS QC limits.

R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a. Samples associated with the MS/MSD clearly identified,

b. MS/MSD spiking amounts,

c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d. Calculated %Rs and relative percent differences (RPDs), and

e. The laboratory's MS/MSD QC limits

R8 - Laboratory analytical duplicate (if applicable) recovery and precision:

a. The amount of analyte measured in the duplicate,

b. The calculated RPD, and

c. The laboratory's QC limits for analytical duplicates.

R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.

R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Chris McCord
Project Manager

Revised May 2010

Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/21/2020 20:09
Project Name: New Wells - Fall 2020	Laboratory Job Number: L1271213-01, 02, 03, 04, 05 and 06
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1559818 and WG1560531

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			1
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			2
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			3
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010

Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/21/2020 20:09
Project Name: New Wells - Fall 2020	Laboratory Job Number: L1271213-01, 02, 03, 04, 05 and 06
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1559818 and WG1560531

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010

Laboratory Review Checklist: Exception Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 10/21/2020 20:09
Project Name: New Wells - Fall 2020	Laboratory Job Number: L1271213-01, 02, 03, 04, 05 and 06
Reviewer Name: Chris McCord	Prep Batch Number(s): WG1559818 and WG1560531

ER #[1]	Description
1	8260B WG1559818 Acetone: Percent Recovery is outside of established control limits. 8260B WG1560531 Tetrachloroethene: Percent Recovery is outside of established control limits.
2	8260B WG1560531 Acetone: Relative Percent Difference is outside of established control limits.
3	8260B WG1560531 n-Butylbenzene, sec-Butylbenzene, Carbon tetrachloride, 1,1-Dichloroethene, Isopropylbenzene, p-Isopropyltoluene, 1,1,1-Trichloroethane, Vinyl chloride: Relative Percent Difference is outside of established control limits.

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Acetone	U	J4	0.0113	0.0500	0.0500	1	10/16/2020 09:47	WG1559818
Benzene	U		0.0000941	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 09:47	WG1559818
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 09:47	WG1559818
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 09:47	WG1559818
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 09:47	WG1559818
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 09:47	WG1559818
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 09:47	WG1559818
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 09:47	WG1559818
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 09:47	WG1559818
Methyl tert-butyl ether	0.000496	J	0.000101	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 09:47	WG1559818
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 09:47	WG1559818
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 09:47	WG1559818
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 09:47	WG1559818
(S) Toluene-d8	*105*				*80.0-120*		*10/16/2020 09:47*	WG1559818
(S) 4-Bromofluorobenzene	*95.9*				*77.0-126*		*10/16/2020 09:47*	WG1559818
(S) 1,2-Dichloroethane-d4	*112*				*70.0-130*		*10/16/2020 09:47*	WG1559818

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	0.0500	1	10/16/2020 10:07	WG1559818
Benzene	U		0.0000941	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 10:07	WG1559818
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 10:07	WG1559818
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 10:07	WG1559818
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 10:07	WG1559818
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 10:07	WG1559818
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 10:07	WG1559818
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 10:07	WG1559818
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 10:07	WG1559818
Methyl tert-butyl ether	U		0.000101	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 10:07	WG1559818
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 10:07	WG1559818
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 10:07	WG1559818
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 10:07	WG1559818
(S) Toluene-d8	*106*				*80.0-120*		*10/16/2020 10:07*	WG1559818
(S) 4-Bromofluorobenzene	*99.6*				*77.0-126*		*10/16/2020 10:07*	WG1559818
(S) 1,2-Dichloroethane-d4	*112*				*70.0-130*		*10/16/2020 10:07*	WG1559818

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	0.0500	1	10/16/2020 10:27	WG1559818
Benzene	U		0.0000941	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 10:27	WG1559818
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 10:27	WG1559818
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 10:27	WG1559818
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 10:27	WG1559818
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 10:27	WG1559818
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 10:27	WG1559818
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 10:27	WG1559818
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 10:27	WG1559818
Methyl tert-butyl ether	U		0.000101	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 10:27	WG1559818
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 10:27	WG1559818
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 10:27	WG1559818
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 10:27	WG1559818
(S) Toluene-d8	*103*				*80.0-120*		*10/16/2020 10:27*	WG1559818
(S) 4-Bromofluorobenzene	*96.3*				*77.0-126*		*10/16/2020 10:27*	WG1559818
(S) 1,2-Dichloroethane-d4	*115*				*70.0-130*		*10/16/2020 10:27*	WG1559818

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	0.0500	1	10/16/2020 10:48	WG1559818
Benzene	U		0.0000941	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 10:48	WG1559818
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 10:48	WG1559818
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 10:48	WG1559818
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 10:48	WG1559818
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 10:48	WG1559818
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 10:48	WG1559818
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 10:48	WG1559818
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 10:48	WG1559818
Methyl tert-butyl ether	0.000183	J	0.000101	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 10:48	WG1559818
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 10:48	WG1559818
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 10:48	WG1559818
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 10:48	WG1559818
(S) Toluene-d8	*104*				*80.0-120*		*10/16/2020 10:48*	WG1559818
(S) 4-Bromofluorobenzene	*97.4*				*77.0-126*		*10/16/2020 10:48*	WG1559818
(S) 1,2-Dichloroethane-d4	*117*				*70.0-130*		*10/16/2020 10:48*	WG1559818

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0113	0.0500	0.0500	1	10/16/2020 11:08	WG1559818
Benzene	U		0.0000941	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 11:08	WG1559818
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 11:08	WG1559818
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 11:08	WG1559818
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 11:08	WG1559818
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 11:08	WG1559818
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 11:08	WG1559818
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 11:08	WG1559818
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 11:08	WG1559818
Methyl tert-butyl ether	0.000507	J	0.000101	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 11:08	WG1559818
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 11:08	WG1559818
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 11:08	WG1559818
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 11:08	WG1559818
(S) Toluene-d8	*103*				*80.0-120*		*10/16/2020 11:08*	WG1559818
(S) 4-Bromofluorobenzene	*97.8*				*77.0-126*		*10/16/2020 11:08*	WG1559818
(S) 1,2-Dichloroethane-d4	*116*				*70.0-130*		*10/16/2020 11:08*	WG1559818

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	0.0500	1	10/16/2020 15:39	WG1560531
Benzene	0.000641	J	0.0000941	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Bromoform	U		0.000129	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Bromomethane	U		0.000605	0.00500	0.00500	1	10/16/2020 15:39	WG1560531
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Chlorobenzene	U		0.000116	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Chloroethane	U		0.000192	0.00500	0.00500	1	10/16/2020 15:39	WG1560531
Chloroform	U		0.000111	0.00500	0.00500	1	10/16/2020 15:39	WG1560531
Chloromethane	U		0.000960	0.00250	0.00250	1	10/16/2020 15:39	WG1560531
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Ethylbenzene	U		0.000137	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	10/16/2020 15:39	WG1560531
2-Hexanone	U		0.000787	0.0100	0.0100	1	10/16/2020 15:39	WG1560531
Methylene Chloride	U		0.000430	0.00500	0.00500	1	10/16/2020 15:39	WG1560531
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	10/16/2020 15:39	WG1560531
Methyl tert-butyl ether	U		0.000101	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Naphthalene	U		0.00100	0.00500	0.00500	1	10/16/2020 15:39	WG1560531
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Styrene	U		0.000118	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Tetrachloroethene	U	J4	0.000300	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Toluene	U		0.000278	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Trichloroethene	U		0.000190	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
Vinyl chloride	U		0.000234	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
o-Xylene	U		0.000174	0.00100	0.00100	1	10/16/2020 15:39	WG1560531
m&p-Xylene	U		0.000430	0.00200	0.00200	1	10/16/2020 15:39	WG1560531
Xylenes, Total	U		0.000174	0.00300	0.00300	1	10/16/2020 15:39	WG1560531
(S) Toluene-d8	*106*				*80.0-120*		*10/16/2020 15:39*	WG1560531
(S) 4-Bromofluorobenzene	*100*				*77.0-126*		*10/16/2020 15:39*	WG1560531
(S) 1,2-Dichloroethane-d4	*90.4*				*70.0-130*		*10/16/2020 15:39*	WG1560531

Method Blank (MB)

(MB) R3582366-2 10/16/20 08:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582366-2 10/16/20 08:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582366-1 10/16/20 07:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0524	210	19.0-160	J4
Benzene	0.00500	0.00506	101	70.0-123	
Bromodichloromethane	0.00500	0.00509	102	75.0-120	
Bromoform	0.00500	0.00543	109	68.0-132	
Bromomethane	0.00500	0.00553	111	10.0-160	
n-Butylbenzene	0.00500	0.00431	86.2	73.0-125	
sec-Butylbenzene	0.00500	0.00465	93.0	75.0-125	
Carbon disulfide	0.00500	0.00476	95.2	61.0-128	
Carbon tetrachloride	0.00500	0.00498	99.6	68.0-126	
Chlorobenzene	0.00500	0.00528	106	80.0-121	
Chlorodibromomethane	0.00500	0.00540	108	77.0-125	
Chloroethane	0.00500	0.00451	90.2	47.0-150	
Chloroform	0.00500	0.00533	107	73.0-120	
Chloromethane	0.00500	0.00420	84.0	41.0-142	
1,2-Dibromoethane	0.00500	0.00573	115	80.0-122	
1,1-Dichloroethane	0.00500	0.00502	100	70.0-126	
1,2-Dichloroethane	0.00500	0.00547	109	70.0-128	
1,1-Dichloroethene	0.00500	0.00474	94.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00513	103	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00496	99.2	73.0-120	
1,2-Dichloropropane	0.00500	0.00502	100	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00501	100	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00489	97.8	78.0-124	

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Laboratory Control Sample (LCS)

(LCS) R3582366-1 10/16/20 07:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00525	105	79.0-123	
2-Hexanone	0.0250	0.0241	96.4	67.0-149	
Isopropylbenzene	0.00500	0.00497	99.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00464	92.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0326	130	44.0-160	
Methylene Chloride	0.00500	0.00497	99.4	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0256	102	68.0-142	
Methyl tert-butyl ether	0.00500	0.00492	98.4	68.0-125	
Naphthalene	0.00500	0.00469	93.8	54.0-135	
n-Propylbenzene	0.00500	0.00476	95.2	77.0-124	
Styrene	0.00500	0.00496	99.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00529	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00487	97.4	65.0-130	
Tetrachloroethene	0.00500	0.00553	111	72.0-132	
Toluene	0.00500	0.00503	101	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00503	101	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00511	102	80.0-120	
Trichloroethene	0.00500	0.00601	120	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00481	96.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00486	97.2	76.0-122	
Vinyl chloride	0.00500	0.00435	87.0	67.0-131	
Xylenes, Total	0.0150	0.0152	101	79.0-123	
o-Xylene	0.00500	0.00509	102	80.0-122	
m&p-Xylenes	0.0100	0.0101	101	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.5*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*113*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582932-3 10/16/20 14:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582932-3 10/16/20 14:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*87.3*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582932-1 10/16/20 13:25 • (LCSD) R3582932-2 10/16/20 13:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0152	0.0209	60.8	83.6	19.0-160		J3	31.6	27
Benzene	0.00500	0.00545	0.00543	109	109	70.0-123			0.368	20
Bromodichloromethane	0.00500	0.00485	0.00484	97.0	96.8	75.0-120			0.206	20
Bromoform	0.00500	0.00442	0.00490	88.4	98.0	68.0-132			10.3	20
Bromomethane	0.00500	0.00627	0.00661	125	132	10.0-160			5.28	25
n-Butylbenzene	0.00500	0.00375	0.00421	75.0	84.2	73.0-125			11.6	20
sec-Butylbenzene	0.00500	0.00417	0.00447	83.4	89.4	75.0-125			6.94	20
Carbon disulfide	0.00500	0.00545	0.00538	109	108	61.0-128			1.29	20
Carbon tetrachloride	0.00500	0.00448	0.00467	89.6	93.4	68.0-126			4.15	20
Chlorobenzene	0.00500	0.00550	0.00590	110	118	80.0-121			7.02	20
Chlorodibromomethane	0.00500	0.00442	0.00485	88.4	97.0	77.0-125			9.28	20
Chloroethane	0.00500	0.00564	0.00572	113	114	47.0-150			1.41	20
Chloroform	0.00500	0.00487	0.00502	97.4	100	73.0-120			3.03	20
Chloromethane	0.00500	0.00399	0.00422	79.8	84.4	41.0-142			5.60	20
1,2-Dibromoethane	0.00500	0.00505	0.00521	101	104	80.0-122			3.12	20
1,1-Dichloroethane	0.00500	0.00467	0.00475	93.4	95.0	70.0-126			1.70	20
1,2-Dichloroethane	0.00500	0.00471	0.00506	94.2	101	70.0-128			7.16	20
1,1-Dichloroethene	0.00500	0.00549	0.00576	110	115	71.0-124			4.80	20
cis-1,2-Dichloroethene	0.00500	0.00505	0.00507	101	101	73.0-120			0.395	20
trans-1,2-Dichloroethene	0.00500	0.00514	0.00524	103	105	73.0-120			1.93	20
1,2-Dichloropropane	0.00500	0.00535	0.00576	107	115	77.0-125			7.38	20
cis-1,3-Dichloropropene	0.00500	0.00469	0.00490	93.8	98.0	80.0-123			4.38	20
trans-1,3-Dichloropropene	0.00500	0.00415	0.00465	83.0	93.0	78.0-124			11.4	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582932-1 10/16/20 13:25 • (LCSD) R3582932-2 10/16/20 13:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00526	0.00576	105	115	79.0-123			9.07	20
2-Hexanone	0.0250	0.0223	0.0243	89.2	97.2	67.0-149			8.58	20
Isopropylbenzene	0.00500	0.00451	0.00492	90.2	98.4	76.0-127			8.70	20
p-Isopropyltoluene	0.00500	0.00433	0.00453	86.6	90.6	76.0-125			4.51	20
2-Butanone (MEK)	0.0250	0.0227	0.0248	90.8	99.2	44.0-160			8.84	20
Methylene Chloride	0.00500	0.00522	0.00567	104	113	67.0-120			8.26	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0221	0.0240	88.4	96.0	68.0-142			8.24	20
Methyl tert-butyl ether	0.00500	0.00499	0.00510	99.8	102	68.0-125			2.18	20
Naphthalene	0.00500	0.00290	0.00319	58.0	63.8	54.0-135			9.52	20
n-Propylbenzene	0.00500	0.00451	0.00484	90.2	96.8	77.0-124			7.06	20
Styrene	0.00500	0.00467	0.00522	93.4	104	73.0-130			11.1	20
1,1,1,2-Tetrachloroethane	0.00500	0.00456	0.00492	91.2	98.4	75.0-125			7.59	20
1,1,2,2-Tetrachloroethane	0.00500	0.00429	0.00470	85.8	94.0	65.0-130			9.12	20
Tetrachloroethene	0.00500	0.00627	0.00678	125	136	72.0-132		J4	7.82	20
Toluene	0.00500	0.00513	0.00541	103	108	79.0-120			5.31	20
1,1,1-Trichloroethane	0.00500	0.00483	0.00503	96.6	101	73.0-124			4.06	20
1,1,2-Trichloroethane	0.00500	0.00510	0.00562	102	112	80.0-120			9.70	20
Trichloroethene	0.00500	0.00577	0.00613	115	123	78.0-124			6.05	20
1,2,4-Trimethylbenzene	0.00500	0.00430	0.00448	86.0	89.6	76.0-121			4.10	20
1,3,5-Trimethylbenzene	0.00500	0.00461	0.00493	92.2	98.6	76.0-122			6.71	20
Vinyl chloride	0.00500	0.00442	0.00438	88.4	87.6	67.0-131			0.909	20
Xylenes, Total	0.0150	0.0150	0.0164	100	109	79.0-123			8.92	20
o-Xylene	0.00500	0.00494	0.00535	98.8	107	80.0-122			7.97	20
m&p-Xylenes	0.0100	0.0101	0.0111	101	111	80.0-122			9.43	20
(S) Toluene-d8				*106*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.9*	*100*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*89.9*	*88.4*	*70.0-130*				

L1270332-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1270332-01 10/16/20 21:29 • (MS) R3582932-4 10/16/20 21:50 • (MSD) R3582932-5 10/16/20 22:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	3.16	3.52	3.68	57.6	83.2	25	10.0-160			4.44	35
Benzene	0.125	0.00308	0.100	0.116	77.5	90.3	25	17.0-158			14.8	27
Bromodichloromethane	0.125	U	0.109	0.126	87.2	101	25	31.0-150			14.5	27
Bromoform	0.125	U	0.120	0.129	96.0	103	25	29.0-150			7.23	29
Bromomethane	0.125	U	0.118	0.132	94.4	106	25	10.0-160			11.2	38
n-Butylbenzene	0.125	U	0.0657	0.102	52.6	81.6	25	31.0-150		J3	43.3	30

L1270332-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1270332-01 10/16/20 21:29 • (MS) R3582932-4 10/16/20 21:50 • (MSD) R3582932-5 10/16/20 22:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.125	U	0.0657	0.0989	52.6	79.1	25	33.0-155		J3	40.3	29
Carbon disulfide	0.125	U	0.0670	0.0884	53.6	70.7	25	10.0-156			27.5	28
Carbon tetrachloride	0.125	U	0.0666	0.0931	53.3	74.5	25	23.0-159		J3	33.2	28
Chlorobenzene	0.125	U	0.110	0.123	88.0	98.4	25	33.0-152			11.2	27
Chlorodibromomethane	0.125	U	0.115	0.122	92.0	97.6	25	37.0-149			5.91	27
Chloroethane	0.125	U	0.0891	0.118	71.3	94.4	25	10.0-160			27.9	30
Chloroform	0.125	U	0.0982	0.115	78.6	92.0	25	29.0-154			15.8	28
Chloromethane	0.125	U	0.0674	0.0868	53.9	69.4	25	10.0-160			25.2	29
1,2-Dibromoethane	0.125	U	0.134	0.137	107	110	25	34.0-147			2.21	27
1,1-Dichloroethane	0.125	U	0.0874	0.105	69.9	84.0	25	25.0-158			18.3	27
1,2-Dichloroethane	0.125	U	0.118	0.125	94.4	100	25	29.0-151			5.76	27
1,1-Dichloroethene	0.125	U	0.0727	0.102	58.2	81.6	25	11.0-160		J3	33.5	29
cis-1,2-Dichloroethene	0.125	U	0.104	0.119	83.2	95.2	25	10.0-160			13.5	27
trans-1,2-Dichloroethene	0.125	U	0.0843	0.0987	67.4	79.0	25	17.0-153			15.7	27
1,2-Dichloropropane	0.125	U	0.114	0.129	91.2	103	25	30.0-156			12.3	27
cis-1,3-Dichloropropene	0.125	U	0.109	0.118	87.2	94.4	25	34.0-149			7.93	28
trans-1,3-Dichloropropene	0.125	U	0.110	0.117	88.0	93.6	25	32.0-149			6.17	28
Ethylbenzene	0.125	0.00496	0.0935	0.115	70.8	88.0	25	30.0-155			20.6	27
2-Hexanone	0.625	U	0.646	0.661	103	106	25	21.0-160			2.30	29
Isopropylbenzene	0.125	U	0.0732	0.0988	58.6	79.0	25	28.0-157		J3	29.8	27
p-Isopropyltoluene	0.125	U	0.0715	0.102	57.2	81.6	25	30.0-154		J3	35.2	29
2-Butanone (MEK)	0.625	6.68	7.17	7.49	78.4	130	25	10.0-160			4.37	32
Methylene Chloride	0.125	U	0.121	0.126	96.8	101	25	23.0-144			4.05	28
4-Methyl-2-pentanone (MIBK)	0.625	0.0772	0.687	0.718	97.6	103	25	29.0-160			4.41	29
Methyl tert-butyl ether	0.125	U	0.132	0.138	106	110	25	28.0-150			4.44	29
Naphthalene	0.125	U	0.0899	0.101	71.9	80.8	25	12.0-156			11.6	35
n-Propylbenzene	0.125	U	0.0765	0.100	61.2	80.0	25	31.0-154			26.6	28
Styrene	0.125	U	0.0968	0.113	77.4	90.4	25	33.0-155			15.4	28
1,1,1,2-Tetrachloroethane	0.125	U	0.103	0.115	82.4	92.0	25	36.0-151			11.0	29
1,1,2,2-Tetrachloroethane	0.125	U	0.116	0.122	92.8	97.6	25	33.0-150			5.04	28
Tetrachloroethene	0.125	0.0691	0.106	0.137	29.5	54.3	25	10.0-160			25.5	27
Toluene	0.125	0.0727	0.123	0.148	40.2	60.2	25	26.0-154			18.5	28
1,1,1-Trichloroethane	0.125	U	0.0744	0.103	59.5	82.4	25	23.0-160		J3	32.2	28
1,1,2-Trichloroethane	0.125	U	0.137	0.141	110	113	25	35.0-147			2.88	27
Trichloroethene	0.125	U	0.101	0.122	80.8	97.6	25	10.0-160			18.8	25
1,2,4-Trimethylbenzene	0.125	U	0.0830	0.101	66.4	80.8	25	26.0-154			19.6	27
1,3,5-Trimethylbenzene	0.125	U	0.0840	0.106	67.2	84.8	25	28.0-153			23.2	27
Vinyl chloride	0.125	U	0.0605	0.0842	48.4	67.4	25	10.0-160		J3	32.8	27
Xylenes, Total	0.375	0.00953	0.278	0.342	71.6	88.7	25	29.0-154			20.6	28
o-Xylene	0.125	U	0.0941	0.112	75.3	89.6	25	45.0-144			17.4	26

Received by OCD: 6/23/2021 4:05:29 PM

Volatile Organic Compounds (GC/MS) by Method 8260B

L1271213-06

L1270332-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1270332-01 10/16/20 21:29 • (MS) R3582932-4 10/16/20 21:50 • (MSD) R3582932-5 10/16/20 22:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
m&p-Xylenes	0.250	U	0.184	0.230	73.6	92.0	25	43.0-146			22.2	26
(S) Toluene-d8					*105*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.2*	*99.2*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*86.9*	*90.8*		*70.0-130*				

Released to Imaging: 11/21/2023 10:16:55 AM

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

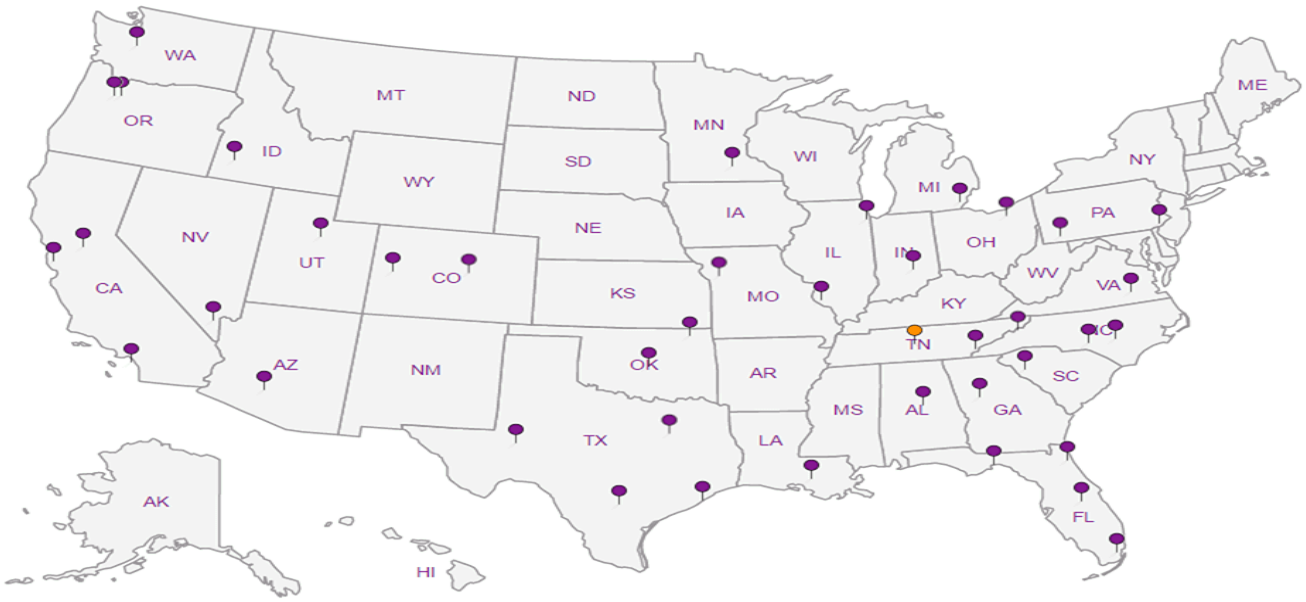
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
TRC Solutions - Austin, TX	403125.0000.0000.	L1271213	10/21/20 20:09	24 of 25

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: New Wells - Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-Artesia New Wells

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # (Navajo - Artesia)

P.O. # 150726

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical*
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271213

Tabl J030

Acctnum: TRCATX

Template: T140422

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-145	Grab	GW		10/6/20	1130	2	x											-01
MW-146	Grab	GW			1100	2	x											-02
MW-147	Grab	GW			1020	2	x											-03
MW-148	Grab	GW			940	2	x											-04
Dup-01	Grab	GW			1000	2	x											-05
EB-01	Grab	GW			1135	2	x											-06
	Grab	GW																
	Grab	GW																
	Grab	GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater

Remarks: Samples returned via FedEx

pH ____ Temp ____

Flow ____ Other ____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N

Relinquished by: (Signature) Scott Ude Date: 10/7/20 Time: 1400

Received by: (Signature) Olivia Tuey 980 10/8/20

1.1-.2-9 VOA A3

9159 8784 5580

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

October 21, 2020

TRC Solutions - Austin, TX

Sample Delivery Group:	L1271283
Samples Received:	10/08/2020
Project Number:	330538.0000.0000
Description:	TEL Fall 2020
Site:	TEL - NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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TEL-4 L1271283-01 GW

Collected by: Scott Ude | Collected date/time: 10/06/20 09:55 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 02:50	10/15/20 02:50	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	1	10/12/20 03:39	10/12/20 03:39	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	100	10/12/20 03:52	10/12/20 03:52	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/13/20 22:08	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	10	10/14/20 12:59	10/14/20 12:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	5	10/17/20 15:33	10/17/20 15:33	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	1	10/12/20 09:00	10/13/20 22:54	DMG	Mt. Juliet, TN

TEL-3 L1271283-02 GW

Collected by: Scott Ude | Collected date/time: 10/06/20 08:45 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 02:52	10/15/20 02:52	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	1	10/12/20 04:05	10/12/20 04:05	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	20	10/12/20 13:27	10/12/20 13:27	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 00:59	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	10	10/14/20 13:25	10/14/20 13:25	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560650	1	10/19/20 01:58	10/19/20 01:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	10	10/12/20 09:00	10/14/20 06:15	AEG	Mt. Juliet, TN

MW-49 L1271283-03 GW

Collected by: Scott Ude | Collected date/time: 10/06/20 13:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 02:59	10/15/20 02:59	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559473	5	10/15/20 11:00	10/15/20 18:17	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	1	10/12/20 04:30	10/12/20 04:30	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	10	10/12/20 04:43	10/12/20 04:43	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556620	1	10/09/20 09:03	10/11/20 11:23	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 04:56	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 01:02	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	20	10/14/20 14:38	10/14/20 14:38	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	20	10/17/20 15:53	10/17/20 15:53	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	1	10/12/20 09:00	10/13/20 23:19	DMG	Mt. Juliet, TN

DUP-TEL-01 L1271283-04 GW

Collected by: Scott Ude | Collected date/time: 10/06/20 11:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 03:00	10/15/20 03:00	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	1	10/12/20 04:56	10/12/20 04:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	20	10/12/20 14:02	10/12/20 14:02	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 01:05	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	10	10/14/20 14:13	10/14/20 14:13	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560663	1	10/17/20 05:22	10/17/20 05:22	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561380	1	10/19/20 19:16	10/19/20 19:16	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	1	10/12/20 09:00	10/13/20 23:44	DMG	Mt. Juliet, TN

EB-TEL-01 L1271283-05 GW

Collected by: Scott Ude
Collected date/time: 10/06/20 09:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 03:02	10/15/20 03:02	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557360	1	10/12/20 05:21	10/12/20 05:21	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 02:33	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560065	1	10/16/20 07:58	10/16/20 07:58	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560663	1	10/17/20 01:11	10/17/20 01:11	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	1	10/12/20 09:00	10/14/20 20:54	DMG	Mt. Juliet, TN

TRIP BLANK-TEL-01 L1271283-06 GW

Collected by: Scott Ude
Collected date/time: 10/06/20 00:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560663	1	10/17/20 01:30	10/17/20 01:30	JCP	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1271283-01	TEL-4	3511/8015
L1271283-03	MW-49	3511/8015
L1271283-04	DUP-TEL-01	3511/8015

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3470		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 02:50	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	400		37.9	100	100	10/12/2020 03:52	WG1557360
Fluoride	0.904		0.0640	0.150	1	10/12/2020 03:39	WG1557360
Sulfate	1140		59.4	500	100	10/12/2020 03:52	WG1557360

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00923		0.000735	0.00200	1	10/13/2020 22:08	WG1556438
Barium	0.0180	J	0.00778	0.0200	1	10/13/2020 22:08	WG1556438
Calcium	294		0.480	1.00	1	10/13/2020 22:08	WG1556438
Chromium	0.106		0.00149	0.00200	1	10/13/2020 22:08	WG1556438
Iron	0.479		0.0489	0.100	1	10/13/2020 22:08	WG1556438
Lead	U		0.00249	0.00500	1	10/13/2020 22:08	WG1556438
Manganese	1.24	V	0.00132	0.00500	1	10/13/2020 22:08	WG1556438
Potassium	U		0.534	2.00	1	10/13/2020 22:08	WG1556438
Selenium	U		0.000657	0.00200	1	10/13/2020 22:08	WG1556438
Sodium	296	V	0.630	2.00	1	10/13/2020 22:08	WG1556438

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.837	J	0.314	1.00	10	10/14/2020 12:59	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*118*			*78.0-120*		*10/14/2020 12:59*	WG1558684

Sample Narrative:

L1271283-01 WG1558684: Dilution due to foam.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	10/17/2020 15:33	WG1560846
Benzene	0.00154	J	0.000471	0.00500	5	10/17/2020 15:33	WG1560846
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 15:33	WG1560846
Bromoform	U		0.000645	0.00500	5	10/17/2020 15:33	WG1560846
Bromomethane	U		0.00303	0.0250	5	10/17/2020 15:33	WG1560846
n-Butylbenzene	U		0.000785	0.00500	5	10/17/2020 15:33	WG1560846
sec-Butylbenzene	0.00754		0.000625	0.00500	5	10/17/2020 15:33	WG1560846
Carbon disulfide	U		0.000481	0.00500	5	10/17/2020 15:33	WG1560846
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 15:33	WG1560846
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 15:33	WG1560846
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 15:33	WG1560846
Chloroethane	U		0.000960	0.0250	5	10/17/2020 15:33	WG1560846
Chloroform	U		0.000555	0.0250	5	10/17/2020 15:33	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloromethane	U		0.00480	0.0125	5	10/17/2020 15:33	WG1560846
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 15:33	WG1560846
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 15:33	WG1560846
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 15:33	WG1560846
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 15:33	WG1560846
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 15:33	WG1560846
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 15:33	WG1560846
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 15:33	WG1560846
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 15:33	WG1560846
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	10/17/2020 15:33	WG1560846
Ethylbenzene	U		0.000685	0.00500	5	10/17/2020 15:33	WG1560846
Isopropylbenzene	0.00919		0.000525	0.00500	5	10/17/2020 15:33	WG1560846
p-Isopropyltoluene	U		0.000600	0.00500	5	10/17/2020 15:33	WG1560846
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 15:33	WG1560846
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 15:33	WG1560846
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 15:33	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 15:33	WG1560846
Methyl tert-butyl ether	0.0898		0.000505	0.00500	5	10/17/2020 15:33	WG1560846
Naphthalene	U		0.00500	0.0250	5	10/17/2020 15:33	WG1560846
n-Propylbenzene	0.00405	J	0.000497	0.00500	5	10/17/2020 15:33	WG1560846
Styrene	U		0.000590	0.00500	5	10/17/2020 15:33	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 15:33	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 15:33	WG1560846
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 15:33	WG1560846
Toluene	U		0.00139	0.00500	5	10/17/2020 15:33	WG1560846
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 15:33	WG1560846
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 15:33	WG1560846
Trichloroethene	U		0.000950	0.00500	5	10/17/2020 15:33	WG1560846
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	10/17/2020 15:33	WG1560846
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	10/17/2020 15:33	WG1560846
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 15:33	WG1560846
o-Xylene	U		0.000870	0.00500	5	10/17/2020 15:33	WG1560846
m&p-Xylene	U		0.00215	0.0100	5	10/17/2020 15:33	WG1560846
Xylenes, Total	U		0.000870	0.0150	5	10/17/2020 15:33	WG1560846
(S) Toluene-d8	*104*			*80.0-120*		*10/17/2020 15:33*	WG1560846
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 15:33*	WG1560846
(S) 1,2-Dichloroethane-d4	*89.3*			*70.0-130*		*10/17/2020 15:33*	WG1560846

Sample Narrative:

L1271283-01 WG1560846: Dilution due to matrix.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.91		0.0247	0.100	1	10/13/2020 22:54	WG1557494
(S) o-Terphenyl	*88.4*			*31.0-160*		*10/13/2020 22:54*	WG1557494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2880		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U	J6	0.0500	0.100	1	10/15/2020 02:52	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	114		7.58	20.0	20	10/12/2020 13:27	WG1557360
Fluoride	1.73		0.0640	0.150	1	10/12/2020 04:05	WG1557360
Sulfate	1290		11.9	100	20	10/12/2020 13:27	WG1557360

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00434		0.000735	0.00200	1	10/14/2020 00:59	WG1556438
Barium	0.0158	J	0.00778	0.0200	1	10/14/2020 00:59	WG1556438
Calcium	424		0.480	1.00	1	10/14/2020 00:59	WG1556438
Chromium	0.0275		0.00149	0.00200	1	10/14/2020 00:59	WG1556438
Iron	0.158		0.0489	0.100	1	10/14/2020 00:59	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 00:59	WG1556438
Manganese	0.0170		0.00132	0.00500	1	10/14/2020 00:59	WG1556438
Potassium	2.55		0.534	2.00	1	10/14/2020 00:59	WG1556438
Selenium	U		0.000657	0.00200	1	10/14/2020 00:59	WG1556438
Sodium	86.5		0.630	2.00	1	10/14/2020 00:59	WG1556438

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.28		0.314	1.00	10	10/14/2020 13:25	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*116*			*78.0-120*		*10/14/2020 13:25*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/19/2020 01:58	WG1560650
Benzene	0.182		0.0000941	0.00100	1	10/19/2020 01:58	WG1560650
Bromodichloromethane	U		0.000136	0.00100	1	10/19/2020 01:58	WG1560650
Bromoform	U		0.000129	0.00100	1	10/19/2020 01:58	WG1560650
Bromomethane	U	J4	0.000605	0.00500	1	10/19/2020 01:58	WG1560650
n-Butylbenzene	0.00244		0.000157	0.00100	1	10/19/2020 01:58	WG1560650
sec-Butylbenzene	0.00749		0.000125	0.00100	1	10/19/2020 01:58	WG1560650
Carbon disulfide	0.00307		0.0000962	0.00100	1	10/19/2020 01:58	WG1560650
Carbon tetrachloride	U		0.000128	0.00100	1	10/19/2020 01:58	WG1560650
Chlorobenzene	U		0.000116	0.00100	1	10/19/2020 01:58	WG1560650
Chlorodibromomethane	U		0.000140	0.00100	1	10/19/2020 01:58	WG1560650
Chloroethane	U		0.000192	0.00500	1	10/19/2020 01:58	WG1560650
Chloroform	U		0.000111	0.00500	1	10/19/2020 01:58	WG1560650
Chloromethane	U		0.000960	0.00250	1	10/19/2020 01:58	WG1560650
1,2-Dibromoethane	U		0.000126	0.00100	1	10/19/2020 01:58	WG1560650
1,1-Dichloroethane	U		0.000100	0.00100	1	10/19/2020 01:58	WG1560650

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/19/2020 01:58	WG1560650
1,1-Dichloroethene	U		0.000188	0.00100	1	10/19/2020 01:58	WG1560650
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/19/2020 01:58	WG1560650
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/19/2020 01:58	WG1560650
1,2-Dichloropropane	U		0.000149	0.00100	1	10/19/2020 01:58	WG1560650
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/19/2020 01:58	WG1560650
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/19/2020 01:58	WG1560650
Ethylbenzene	0.00262		0.000137	0.00100	1	10/19/2020 01:58	WG1560650
Isopropylbenzene	0.0541		0.000105	0.00100	1	10/19/2020 01:58	WG1560650
p-Isopropyltoluene	0.00180		0.000120	0.00100	1	10/19/2020 01:58	WG1560650
2-Butanone (MEK)	U		0.00119	0.0100	1	10/19/2020 01:58	WG1560650
2-Hexanone	U		0.000787	0.0100	1	10/19/2020 01:58	WG1560650
Methylene Chloride	U		0.000430	0.00500	1	10/19/2020 01:58	WG1560650
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/19/2020 01:58	WG1560650
Methyl tert-butyl ether	0.00419		0.000101	0.00100	1	10/19/2020 01:58	WG1560650
Naphthalene	0.00365	J	0.00100	0.00500	1	10/19/2020 01:58	WG1560650
n-Propylbenzene	0.0255		0.0000993	0.00100	1	10/19/2020 01:58	WG1560650
Styrene	U		0.000118	0.00100	1	10/19/2020 01:58	WG1560650
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/19/2020 01:58	WG1560650
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/19/2020 01:58	WG1560650
Tetrachloroethene	U		0.000300	0.00100	1	10/19/2020 01:58	WG1560650
Toluene	0.00449		0.000278	0.00100	1	10/19/2020 01:58	WG1560650
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/19/2020 01:58	WG1560650
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/19/2020 01:58	WG1560650
Trichloroethene	U	J4	0.000190	0.00100	1	10/19/2020 01:58	WG1560650
1,2,4-Trimethylbenzene	0.0659		0.000322	0.00100	1	10/19/2020 01:58	WG1560650
1,3,5-Trimethylbenzene	0.00147		0.000104	0.00100	1	10/19/2020 01:58	WG1560650
Vinyl chloride	U		0.000234	0.00100	1	10/19/2020 01:58	WG1560650
o-Xylene	0.00640		0.000174	0.00100	1	10/19/2020 01:58	WG1560650
m&p-Xylene	0.0441		0.000430	0.00200	1	10/19/2020 01:58	WG1560650
Xylenes, Total	0.0505		0.000174	0.00300	1	10/19/2020 01:58	WG1560650
(S) Toluene-d8	*106*			*80.0-120*		*10/19/2020 01:58*	WG1560650
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/19/2020 01:58*	WG1560650
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*		*10/19/2020 01:58*	WG1560650

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.36		0.247	1.00	10	10/14/2020 06:15	WG1557494
(S) o-Terphenyl	*86.8*			*31.0-160*		*10/14/2020 06:15*	WG1557494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2340		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 02:59	WG1558993

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	0.0121	J	0.00900	0.0250	5	10/15/2020 18:17	WG1559473

Sample Narrative:

L1271283-03 WG1559473: dilution due to sulfide interference

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	451		3.79	10.0	10	10/12/2020 04:43	WG1557360
Fluoride	1.30		0.0640	0.150	1	10/12/2020 04:30	WG1557360
Sulfate	437		5.94	50.0	10	10/12/2020 04:43	WG1557360

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/11/2020 11:23	WG1556620

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.661		0.0254	0.200	1	10/12/2020 04:56	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00538		0.000735	0.00200	1	10/14/2020 01:02	WG1556438
Barium	0.0500		0.00778	0.0200	1	10/14/2020 01:02	WG1556438
Cadmium	U		0.000478	0.00100	1	10/14/2020 01:02	WG1556438
Calcium	196		0.480	1.00	1	10/14/2020 01:02	WG1556438
Chromium	U		0.00149	0.00200	1	10/14/2020 01:02	WG1556438
Cobalt	U		0.000477	0.00200	1	10/14/2020 01:02	WG1556438
Iron	0.0526	J	0.0489	0.100	1	10/14/2020 01:02	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 01:02	WG1556438
Manganese	0.220		0.00132	0.00500	1	10/14/2020 01:02	WG1556438
Nickel	0.00835		0.000952	0.00200	1	10/14/2020 01:02	WG1556438
Potassium	2.45		0.534	2.00	1	10/14/2020 01:02	WG1556438
Selenium	U		0.000657	0.00200	1	10/14/2020 01:02	WG1556438
Sodium	308		0.630	2.00	1	10/14/2020 01:02	WG1556438
Uranium	U		0.00754	0.0200	1	10/14/2020 01:02	WG1556438
Vanadium	U		0.000986	0.00500	1	10/14/2020 01:02	WG1556438

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5.05		0.628	2.00	20	10/14/2020 14:38	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*115*			*78.0-120*		*10/14/2020 14:38*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	10/17/2020 15:53	WG1560846
Benzene	0.404		0.00188	0.0200	20	10/17/2020 15:53	WG1560846
Bromodichloromethane	U		0.00272	0.0200	20	10/17/2020 15:53	WG1560846
Bromoform	U		0.00258	0.0200	20	10/17/2020 15:53	WG1560846
Bromomethane	U		0.0121	0.100	20	10/17/2020 15:53	WG1560846
n-Butylbenzene	U		0.00314	0.0200	20	10/17/2020 15:53	WG1560846
sec-Butylbenzene	0.00550	J	0.00250	0.0200	20	10/17/2020 15:53	WG1560846
Carbon disulfide	U		0.00192	0.0200	20	10/17/2020 15:53	WG1560846
Carbon tetrachloride	U		0.00256	0.0200	20	10/17/2020 15:53	WG1560846
Chlorobenzene	U		0.00232	0.0200	20	10/17/2020 15:53	WG1560846
Chlorodibromomethane	U		0.00280	0.0200	20	10/17/2020 15:53	WG1560846
Chloroethane	U		0.00384	0.100	20	10/17/2020 15:53	WG1560846
Chloroform	U		0.00222	0.100	20	10/17/2020 15:53	WG1560846
Chloromethane	U		0.0192	0.0500	20	10/17/2020 15:53	WG1560846
1,2-Dibromoethane	U		0.00252	0.0200	20	10/17/2020 15:53	WG1560846
1,1-Dichloroethane	U		0.00200	0.0200	20	10/17/2020 15:53	WG1560846
1,2-Dichloroethane	U		0.00164	0.0200	20	10/17/2020 15:53	WG1560846
1,1-Dichloroethene	U		0.00376	0.0200	20	10/17/2020 15:53	WG1560846
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	10/17/2020 15:53	WG1560846
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	10/17/2020 15:53	WG1560846
1,2-Dichloropropane	U		0.00298	0.0200	20	10/17/2020 15:53	WG1560846
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	10/17/2020 15:53	WG1560846
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	10/17/2020 15:53	WG1560846
Ethylbenzene	0.0121	J	0.00274	0.0200	20	10/17/2020 15:53	WG1560846
Isopropylbenzene	0.0329		0.00210	0.0200	20	10/17/2020 15:53	WG1560846
p-Isopropyltoluene	U		0.00240	0.0200	20	10/17/2020 15:53	WG1560846
2-Butanone (MEK)	U		0.0238	0.200	20	10/17/2020 15:53	WG1560846
2-Hexanone	U		0.0157	0.200	20	10/17/2020 15:53	WG1560846
Methylene Chloride	U		0.00860	0.100	20	10/17/2020 15:53	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	10/17/2020 15:53	WG1560846
Methyl tert-butyl ether	0.196		0.00202	0.0200	20	10/17/2020 15:53	WG1560846
Naphthalene	U		0.0200	0.100	20	10/17/2020 15:53	WG1560846
n-Propylbenzene	0.0359		0.00199	0.0200	20	10/17/2020 15:53	WG1560846
Styrene	U		0.00236	0.0200	20	10/17/2020 15:53	WG1560846
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	10/17/2020 15:53	WG1560846
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	10/17/2020 15:53	WG1560846
Tetrachloroethene	U		0.00600	0.0200	20	10/17/2020 15:53	WG1560846
Toluene	U		0.00556	0.0200	20	10/17/2020 15:53	WG1560846
1,1,1-Trichloroethane	U		0.00298	0.0200	20	10/17/2020 15:53	WG1560846
1,1,2-Trichloroethane	U		0.00316	0.0200	20	10/17/2020 15:53	WG1560846
Trichloroethene	U		0.00380	0.0200	20	10/17/2020 15:53	WG1560846
1,2,4-Trimethylbenzene	0.0763		0.00644	0.0200	20	10/17/2020 15:53	WG1560846
1,3,5-Trimethylbenzene	0.0154	J	0.00208	0.0200	20	10/17/2020 15:53	WG1560846
Vinyl chloride	U		0.00468	0.0200	20	10/17/2020 15:53	WG1560846
o-Xylene	U		0.00348	0.0200	20	10/17/2020 15:53	WG1560846
m&p-Xylene	0.113		0.00860	0.0400	20	10/17/2020 15:53	WG1560846
Xylenes, Total	0.113		0.00348	0.0600	20	10/17/2020 15:53	WG1560846
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 15:53*	WG1560846
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 15:53*	WG1560846

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-45
Collected date/time: 10/06/20 13:00
L1271283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
(S) 1,2-Dichloroethane-d4	*84.7*			*70.0-130*		*10/17/2020 15:53*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	5.44		0.0247	0.100	1	10/13/2020 23:19	WG1557494
(S) o-Terphenyl	*99.5*			*31.0-160*		*10/13/2020 23:19*	WG1557494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3510		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 03:00	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	450		7.58	20.0	20	10/12/2020 14:02	WG1557360
Fluoride	0.834		0.0640	0.150	1	10/12/2020 04:56	WG1557360
Sulfate	1230		11.9	100	20	10/12/2020 14:02	WG1557360

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00921		0.000735	0.00200	1	10/14/2020 01:05	WG1556438
Barium	0.0181	J	0.00778	0.0200	1	10/14/2020 01:05	WG1556438
Calcium	291		0.480	1.00	1	10/14/2020 01:05	WG1556438
Chromium	0.0522		0.00149	0.00200	1	10/14/2020 01:05	WG1556438
Iron	0.360		0.0489	0.100	1	10/14/2020 01:05	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 01:05	WG1556438
Manganese	1.19		0.00132	0.00500	1	10/14/2020 01:05	WG1556438
Potassium	U		0.534	2.00	1	10/14/2020 01:05	WG1556438
Selenium	U		0.000657	0.00200	1	10/14/2020 01:05	WG1556438
Sodium	307		0.630	2.00	1	10/14/2020 01:05	WG1556438

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.07		0.314	1.00	10	10/14/2020 14:13	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*119*			*78.0-120*		*10/14/2020 14:13*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	10/17/2020 05:22	WG1560663
Benzene	0.00133		0.0000941	0.00100	1	10/17/2020 05:22	WG1560663
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:22	WG1560663
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:22	WG1560663
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:22	WG1560663
n-Butylbenzene	0.000616	J	0.000157	0.00100	1	10/17/2020 05:22	WG1560663
sec-Butylbenzene	0.00930		0.000125	0.00100	1	10/17/2020 05:22	WG1560663
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:22	WG1560663
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 05:22	WG1560663
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:22	WG1560663
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:22	WG1560663
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:22	WG1560663
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:22	WG1560663
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:22	WG1560663
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:22	WG1560663
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:22	WG1560663

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:22	WG1560663
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:22	WG1560663
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:22	WG1560663
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:22	WG1560663
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:22	WG1560663
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:22	WG1560663
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 05:22	WG1560663
Ethylbenzene	0.000370	J	0.000137	0.00100	1	10/17/2020 05:22	WG1560663
Isopropylbenzene	0.0114		0.000105	0.00100	1	10/17/2020 05:22	WG1560663
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:22	WG1560663
2-Butanone (MEK)	U	J3	0.00119	0.0100	1	10/17/2020 05:22	WG1560663
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:22	WG1560663
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:22	WG1560663
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:22	WG1560663
Methyl tert-butyl ether	0.0891		0.000101	0.00100	1	10/17/2020 05:22	WG1560663
Naphthalene	U		0.00100	0.00500	1	10/17/2020 05:22	WG1560663
n-Propylbenzene	0.00460		0.0000993	0.00100	1	10/17/2020 05:22	WG1560663
Styrene	U		0.000118	0.00100	1	10/17/2020 05:22	WG1560663
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:22	WG1560663
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:22	WG1560663
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:22	WG1560663
Toluene	0.000395	J	0.000278	0.00100	1	10/17/2020 05:22	WG1560663
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 05:22	WG1560663
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:22	WG1560663
Trichloroethene	U		0.000190	0.00100	1	10/19/2020 19:16	WG1561380
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:22	WG1560663
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:22	WG1560663
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:22	WG1560663
o-Xylene	0.000209	J	0.000174	0.00100	1	10/17/2020 05:22	WG1560663
m&p-Xylene	0.000965	J	0.000430	0.00200	1	10/17/2020 05:22	WG1560663
Xylenes, Total	0.00117	J	0.000174	0.00300	1	10/17/2020 05:22	WG1560663
(S) Toluene-d8	*105*			*80.0-120*		*10/17/2020 05:22*	WG1560663
(S) Toluene-d8	*94.6*			*80.0-120*		*10/19/2020 19:16*	WG1561380
(S) 4-Bromofluorobenzene	*98.4*			*77.0-126*		*10/17/2020 05:22*	WG1560663
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*10/19/2020 19:16*	WG1561380
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/17/2020 05:22*	WG1560663
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*10/19/2020 19:16*	WG1561380

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.12		0.0247	0.100	1	10/13/2020 23:44	WG1557494
(S) o-Terphenyl	*92.1*			*31.0-160*		*10/13/2020 23:44*	WG1557494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	30.7		3.75	13.3	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 03:02	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U		0.379	1.00	1	10/12/2020 05:21	WG1557360
Fluoride	U		0.0640	0.150	1	10/12/2020 05:21	WG1557360
Sulfate	U		0.594	5.00	1	10/12/2020 05:21	WG1557360

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/14/2020 02:33	WG1556438
Barium	U		0.00778	0.0200	1	10/14/2020 02:33	WG1556438
Calcium	U		0.480	1.00	1	10/14/2020 02:33	WG1556438
Chromium	U		0.00149	0.00200	1	10/14/2020 02:33	WG1556438
Iron	U		0.0489	0.100	1	10/14/2020 02:33	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 02:33	WG1556438
Manganese	U		0.00132	0.00500	1	10/14/2020 02:33	WG1556438
Potassium	U		0.534	2.00	1	10/14/2020 02:33	WG1556438
Selenium	U		0.000657	0.00200	1	10/14/2020 02:33	WG1556438
Sodium	U		0.630	2.00	1	10/14/2020 02:33	WG1556438

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 07:58	WG1560065
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*		*10/16/2020 07:58*	WG1560065

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	10/17/2020 01:11	WG1560663
Benzene	U		0.0000941	0.00100	1	10/17/2020 01:11	WG1560663
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 01:11	WG1560663
Bromoform	U		0.000129	0.00100	1	10/17/2020 01:11	WG1560663
Bromomethane	U		0.000605	0.00500	1	10/17/2020 01:11	WG1560663
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 01:11	WG1560663
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 01:11	WG1560663
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 01:11	WG1560663
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 01:11	WG1560663
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 01:11	WG1560663
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 01:11	WG1560663
Chloroethane	U		0.000192	0.00500	1	10/17/2020 01:11	WG1560663
Chloroform	U		0.000111	0.00500	1	10/17/2020 01:11	WG1560663
Chloromethane	U		0.000960	0.00250	1	10/17/2020 01:11	WG1560663
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 01:11	WG1560663
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 01:11	WG1560663

EB-TEL-01
Collected date/time: 10/06/20 09:10
L1271283

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 01:11	WG1560663
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 01:11	WG1560663
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 01:11	WG1560663
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 01:11	WG1560663
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 01:11	WG1560663
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 01:11	WG1560663
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 01:11	WG1560663
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 01:11	WG1560663
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 01:11	WG1560663
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 01:11	WG1560663
2-Butanone (MEK)	U	J3	0.00119	0.0100	1	10/17/2020 01:11	WG1560663
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 01:11	WG1560663
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 01:11	WG1560663
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 01:11	WG1560663
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 01:11	WG1560663
Naphthalene	U		0.00100	0.00500	1	10/17/2020 01:11	WG1560663
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 01:11	WG1560663
Styrene	U		0.000118	0.00100	1	10/17/2020 01:11	WG1560663
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 01:11	WG1560663
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 01:11	WG1560663
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 01:11	WG1560663
Toluene	U		0.000278	0.00100	1	10/17/2020 01:11	WG1560663
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 01:11	WG1560663
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 01:11	WG1560663
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 01:11	WG1560663
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 01:11	WG1560663
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 01:11	WG1560663
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 01:11	WG1560663
o-Xylene	U		0.000174	0.00100	1	10/17/2020 01:11	WG1560663
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 01:11	WG1560663
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 01:11	WG1560663
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 01:11*	WG1560663
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*10/17/2020 01:11*	WG1560663
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 01:11*	WG1560663

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/14/2020 20:54	WG1557494
(S) o-Terphenyl	*85.8*			*31.0-160*		*10/14/2020 20:54*	WG1557494

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U	J3	0.0113	0.0500	1	10/17/2020 01:30	WG1560663
Benzene	U		0.0000941	0.00100	1	10/17/2020 01:30	WG1560663
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 01:30	WG1560663
Bromoform	U		0.000129	0.00100	1	10/17/2020 01:30	WG1560663
Bromomethane	U		0.000605	0.00500	1	10/17/2020 01:30	WG1560663
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 01:30	WG1560663
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 01:30	WG1560663
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 01:30	WG1560663
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 01:30	WG1560663
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 01:30	WG1560663
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 01:30	WG1560663
Chloroethane	U		0.000192	0.00500	1	10/17/2020 01:30	WG1560663
Chloroform	U		0.000111	0.00500	1	10/17/2020 01:30	WG1560663
Chloromethane	U		0.000960	0.00250	1	10/17/2020 01:30	WG1560663
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 01:30	WG1560663
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 01:30	WG1560663
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 01:30	WG1560663
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 01:30	WG1560663
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 01:30	WG1560663
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 01:30	WG1560663
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 01:30	WG1560663
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 01:30	WG1560663
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 01:30	WG1560663
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 01:30	WG1560663
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 01:30	WG1560663
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 01:30	WG1560663
2-Butanone (MEK)	U	J3	0.00119	0.0100	1	10/17/2020 01:30	WG1560663
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 01:30	WG1560663
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 01:30	WG1560663
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 01:30	WG1560663
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 01:30	WG1560663
Naphthalene	U		0.00100	0.00500	1	10/17/2020 01:30	WG1560663
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 01:30	WG1560663
Styrene	U		0.000118	0.00100	1	10/17/2020 01:30	WG1560663
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 01:30	WG1560663
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 01:30	WG1560663
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 01:30	WG1560663
Toluene	U		0.000278	0.00100	1	10/17/2020 01:30	WG1560663
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 01:30	WG1560663
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 01:30	WG1560663
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 01:30	WG1560663
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 01:30	WG1560663
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 01:30	WG1560663
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 01:30	WG1560663
o-Xylene	U		0.000174	0.00100	1	10/17/2020 01:30	WG1560663
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 01:30	WG1560663
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 01:30	WG1560663
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 01:30*	WG1560663
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/17/2020 01:30*	WG1560663
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*10/17/2020 01:30*	WG1560663

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3581958-1 10/13/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1270630-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270630-02 10/13/20 21:36 • (DUP) R3581958-3 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	159	155	1	2.55		5

L1271301-53 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-53 10/13/20 21:36 • (DUP) R3581958-4 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4440	4390	1	1.27		5

Laboratory Control Sample (LCS)

(LCS) R3581958-2 10/13/20 21:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	77.4-123	

Method Blank (MB)

(MB) R3581654-1 10/15/20 02:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1270979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1270979-01 10/15/20 02:57 • (DUP) R3581654-2 10/15/20 02:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.247	0.206	1	18.1		20

L1272738-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1272738-05 10/15/20 04:26 • (DUP) R3581654-5 10/15/20 04:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3581654-4 10/15/20 04:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.35	94.0	90.0-110	

L1271283-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271283-02 10/15/20 02:52 • (MS) R3581654-3 10/15/20 02:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.19	87.6	1	90.0-110	J6

L1272738-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1272738-06 10/15/20 04:29 • (MS) R3581654-6 10/15/20 04:30 • (MSD) R3581654-7 10/15/20 04:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	1.61	1.69	64.4	67.6	1	90.0-110	J6	J6	4.85	20

Method Blank (MB)

(MB) R3582022-1 10/15/20 17:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1271016-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271016-01 10/15/20 18:05 • (DUP) R3582022-3 10/15/20 18:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1271044-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271044-01 10/15/20 18:07 • (DUP) R3582022-4 10/15/20 18:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00195	U	1	200	P1	20

Laboratory Control Sample (LCS)

(LCS) R3582022-2 10/15/20 17:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0956	95.6	87.1-120	

L1271044-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271044-02 10/15/20 18:09 • (MS) R3582022-5 10/15/20 18:12 • (MSD) R3582022-6 10/15/20 18:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00249	0.100	0.101	97.5	98.5	1	90.0-110			0.995	20

L1271298-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-22 10/15/20 18:19 • (MS) R3582022-7 10/15/20 18:20 • (MSD) R3582022-8 10/15/20 18:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.100	0.0994	100	99.4	1	90.0-110			0.602	20

Method Blank (MB)

(MB) R3580675-1 10/11/20 21:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1270838-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1270838-01 10/11/20 22:44 • (DUP) R3580675-3 10/11/20 22:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	11.7	11.9	1	1.15		15
Fluoride	0.109	0.110	1	0.917	J	15
Sulfate	13.2	13.4	1	1.13		15

L1271283-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1271283-05 10/12/20 05:21 • (DUP) R3580675-6 10/12/20 06:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3580675-2 10/11/20 21:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.5	98.8	80.0-120	
Fluoride	8.00	8.06	101	80.0-120	
Sulfate	40.0	39.0	97.5	80.0-120	

L1270838-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1270838-02 10/11/20 23:10 • (MS) R3580675-4 10/11/20 23:23 • (MSD) R3580675-5 10/11/20 23:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	6.56	58.5	57.3	104	101	1	80.0-120			2.06	15
Fluoride	5.00	0.0775	5.23	5.11	103	101	1	80.0-120			2.19	15
Sulfate	50.0	45.3	93.8	92.0	97.0	93.3	1	80.0-120			2.00	15

L1271376-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271376-02 10/12/20 06:26 • (MS) R3580675-7 10/12/20 06:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	29.1	79.1	99.8	1	80.0-120	
Fluoride	5.00	0.138	5.36	104	1	80.0-120	
Sulfate	50.0	40.7	88.3	95.3	1	80.0-120	

Method Blank (MB)

(MB) R3580201-1 10/11/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3580201-2 10/11/20 10:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00292	97.2	80.0-120	

L1271298-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-30 10/11/20 10:36 • (MS) R3580201-3 10/11/20 10:38 • (MSD) R3580201-4 10/11/20 10:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00261	0.00246	87.1	82.1	1	75.0-125			5.92	20

Method Blank (MB)

(MB) R3580327-1 10/12/20 04:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3580327-2 10/12/20 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.984	98.4	80.0-120	

L1271025-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271025-08 10/12/20 04:10 • (MS) R3580327-4 10/12/20 04:15 • (MSD) R3580327-5 10/12/20 04:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.496	1.46	1.46	96.0	96.1	1	75.0-125			0.0564	20

Method Blank (MB)

(MB) R3581309-1 10/13/20 22:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581309-2 10/13/20 22:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0490	98.1	80.0-120	
Barium	0.0500	0.0507	101	80.0-120	
Cadmium	0.0500	0.0492	98.4	80.0-120	
Calcium	5.00	4.96	99.3	80.0-120	
Chromium	0.0500	0.0501	100	80.0-120	
Cobalt	0.0500	0.0503	101	80.0-120	
Iron	5.00	5.01	100	80.0-120	
Lead	0.0500	0.0500	99.9	80.0-120	
Manganese	0.0500	0.0500	99.9	80.0-120	
Nickel	0.0500	0.0504	101	80.0-120	
Potassium	5.00	4.88	97.6	80.0-120	
Selenium	0.0500	0.0500	100	80.0-120	
Sodium	5.00	4.65	93.0	80.0-120	
Uranium	0.0500	0.0494	98.7	80.0-120	
Vanadium	0.0500	0.0500	99.9	80.0-120	

L1271283-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271283-01 10/13/20 22:08 • (MS) R3581309-4 10/13/20 22:14 • (MSD) R3581309-5 10/13/20 22:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00923	0.0581	0.0576	97.7	96.8	1	75.0-125			0.768	20
Barium	0.0500	0.0180	0.0674	0.0675	98.9	99.1	1	75.0-125			0.157	20
Cadmium	0.0500	U	0.0496	0.0501	99.1	100	1	75.0-125			1.04	20
Calcium	5.00	294	296	296	49.1	39.6	1	75.0-125	V	V	0.161	20
Chromium	0.0500	0.106	0.150	0.147	88.9	82.1	1	75.0-125			2.29	20
Cobalt	0.0500	0.00237	0.0499	0.0500	95.1	95.2	1	75.0-125			0.141	20
Potassium	5.00	U	5.20	5.15	94.0	92.9	1	75.0-125			1.10	20
Iron	5.00	0.479	5.25	5.31	95.5	96.6	1	75.0-125			1.10	20
Lead	0.0500	U	0.0489	0.0506	96.0	99.4	1	75.0-125			3.36	20
Manganese	0.0500	1.24	1.25	1.24	21.9	0.000	1	75.0-125	V	V	0.896	20
Nickel	0.0500	0.140	0.182	0.173	84.2	66.8	1	75.0-125		J6	4.88	20
Selenium	0.0500	U	0.0504	0.0512	99.6	101	1	75.0-125			1.57	20
Sodium	5.00	296	297	300	32.7	83.4	1	75.0-125	V		0.848	20
Uranium	0.0500	U	0.0506	0.0515	100	102	1	75.0-125			1.64	20
Vanadium	0.0500	U	0.0502	0.0502	100	100	1	75.0-125			0.0380	20

Method Blank (MB)

(MB) R3582008-2 10/14/20 07:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582008-1 10/14/20 06:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.83	87.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

Method Blank (MB)

(MB) R3582384-3 10/16/20 07:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582384-2 10/16/20 06:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.95	108	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583098-2 10/19/20 01:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583098-2 10/19/20 01:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*92.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583098-1 10/19/20 00:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0244	97.6	19.0-160	
Benzene	0.00500	0.00505	101	70.0-123	
Bromodichloromethane	0.00500	0.00458	91.6	75.0-120	
Bromoform	0.00500	0.00521	104	68.0-132	
Bromomethane	0.00500	0.00821	164	10.0-160	J4
n-Butylbenzene	0.00500	0.00419	83.8	73.0-125	
sec-Butylbenzene	0.00500	0.00457	91.4	75.0-125	
Carbon disulfide	0.00500	0.00497	99.4	61.0-128	
Carbon tetrachloride	0.00500	0.00549	110	68.0-126	
Chlorobenzene	0.00500	0.00557	111	80.0-121	
Chlorodibromomethane	0.00500	0.00510	102	77.0-125	
Chloroethane	0.00500	0.00515	103	47.0-150	
Chloroform	0.00500	0.00505	101	73.0-120	
Chloromethane	0.00500	0.00281	56.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00579	116	80.0-122	
1,1-Dichloroethane	0.00500	0.00466	93.2	70.0-126	
1,2-Dichloroethane	0.00500	0.00505	101	70.0-128	
1,1-Dichloroethene	0.00500	0.00554	111	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00508	102	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00531	106	73.0-120	
1,2-Dichloropropane	0.00500	0.00432	86.4	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00466	93.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00431	86.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3583098-1 10/19/20 00:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00561	112	79.0-123	
2-Hexanone	0.0250	0.0207	82.8	67.0-149	
Isopropylbenzene	0.00500	0.00544	109	76.0-127	
p-Isopropyltoluene	0.00500	0.00449	89.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0200	80.0	44.0-160	
Methylene Chloride	0.00500	0.00481	96.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0190	76.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00474	94.8	68.0-125	
Naphthalene	0.00500	0.00413	82.6	54.0-135	
n-Propylbenzene	0.00500	0.00416	83.2	77.0-124	
Styrene	0.00500	0.00526	105	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00526	105	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00393	78.6	65.0-130	
Tetrachloroethene	0.00500	0.00647	129	72.0-132	
Toluene	0.00500	0.00526	105	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00509	102	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00545	109	80.0-120	
Trichloroethene	0.00500	0.00623	125	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00419	83.8	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00406	81.2	76.0-122	
Vinyl chloride	0.00500	0.00416	83.2	67.0-131	
Xylenes, Total	0.0150	0.0166	111	79.0-123	
o-Xylene	0.00500	0.00580	116	80.0-122	
m&p-Xylenes	0.0100	0.0108	108	80.0-122	
(S) Toluene-d8			*103*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*95.0*	*70.0-130*	

Method Blank (MB)

(MB) R3582815-3 10/17/20 00:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582815-3 10/17/20 00:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582815-1 10/16/20 23:15 • (LCSD) R3582815-2 10/16/20 23:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0220	0.0302	88.0	121	19.0-160		J3	31.4	27
Benzene	0.00500	0.00490	0.00521	98.0	104	70.0-123			6.13	20
Bromodichloromethane	0.00500	0.00472	0.00530	94.4	106	75.0-120			11.6	20
Bromoform	0.00500	0.00486	0.00507	97.2	101	68.0-132			4.23	20
Bromomethane	0.00500	0.00538	0.00490	108	98.0	10.0-160			9.34	25
n-Butylbenzene	0.00500	0.00480	0.00526	96.0	105	73.0-125			9.15	20
sec-Butylbenzene	0.00500	0.00470	0.00502	94.0	100	75.0-125			6.58	20
Carbon disulfide	0.00500	0.00496	0.00522	99.2	104	61.0-128			5.11	20
Carbon tetrachloride	0.00500	0.00498	0.00532	99.6	106	68.0-126			6.60	20
Chlorobenzene	0.00500	0.00504	0.00537	101	107	80.0-121			6.34	20
Chlorodibromomethane	0.00500	0.00500	0.00515	100	103	77.0-125			2.96	20
Chloroethane	0.00500	0.00541	0.00515	108	103	47.0-150			4.92	20
Chloroform	0.00500	0.00495	0.00529	99.0	106	73.0-120			6.64	20
Chloromethane	0.00500	0.00483	0.00454	96.6	90.8	41.0-142			6.19	20
1,2-Dibromoethane	0.00500	0.00498	0.00545	99.6	109	80.0-122			9.01	20
1,1-Dichloroethane	0.00500	0.00510	0.00525	102	105	70.0-126			2.90	20
1,2-Dichloroethane	0.00500	0.00505	0.00551	101	110	70.0-128			8.71	20
1,1-Dichloroethene	0.00500	0.00490	0.00512	98.0	102	71.0-124			4.39	20
cis-1,2-Dichloroethene	0.00500	0.00511	0.00535	102	107	73.0-120			4.59	20
trans-1,2-Dichloroethene	0.00500	0.00501	0.00519	100	104	73.0-120			3.53	20
1,2-Dichloropropane	0.00500	0.00481	0.00547	96.2	109	77.0-125			12.8	20
cis-1,3-Dichloropropene	0.00500	0.00473	0.00524	94.6	105	80.0-123			10.2	20
trans-1,3-Dichloropropene	0.00500	0.00486	0.00483	97.2	96.6	78.0-124			0.619	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582815-1 10/16/20 23:15 • (LCSD) R3582815-2 10/16/20 23:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00505	0.00540	101	108	79.0-123			6.70	20
2-Hexanone	0.0250	0.0244	0.0276	97.6	110	67.0-149			12.3	20
Isopropylbenzene	0.00500	0.00509	0.00535	102	107	76.0-127			4.98	20
p-Isopropyltoluene	0.00500	0.00478	0.00519	95.6	104	76.0-125			8.22	20
2-Butanone (MEK)	0.0250	0.0228	0.0279	91.2	112	44.0-160		J3	20.1	20
Methylene Chloride	0.00500	0.00460	0.00484	92.0	96.8	67.0-120			5.08	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0243	0.0269	97.2	108	68.0-142			10.2	20
Methyl tert-butyl ether	0.00500	0.00491	0.00544	98.2	109	68.0-125			10.2	20
Naphthalene	0.00500	0.00502	0.00528	100	106	54.0-135			5.05	20
n-Propylbenzene	0.00500	0.00447	0.00458	89.4	91.6	77.0-124			2.43	20
Styrene	0.00500	0.00494	0.00512	98.8	102	73.0-130			3.58	20
1,1,1,2-Tetrachloroethane	0.00500	0.00506	0.00524	101	105	75.0-125			3.50	20
1,1,2,2-Tetrachloroethane	0.00500	0.00444	0.00448	88.8	89.6	65.0-130			0.897	20
Tetrachloroethene	0.00500	0.00519	0.00535	104	107	72.0-132			3.04	20
Toluene	0.00500	0.00500	0.00517	100	103	79.0-120			3.34	20
1,1,1-Trichloroethane	0.00500	0.00490	0.00513	98.0	103	73.0-124			4.59	20
1,1,2-Trichloroethane	0.00500	0.00506	0.00555	101	111	80.0-120			9.24	20
Trichloroethene	0.00500	0.00517	0.00553	103	111	78.0-124			6.73	20
1,2,4-Trimethylbenzene	0.00500	0.00461	0.00483	92.2	96.6	76.0-121			4.66	20
1,3,5-Trimethylbenzene	0.00500	0.00448	0.00467	89.6	93.4	76.0-122			4.15	20
Vinyl chloride	0.00500	0.00544	0.00501	109	100	67.0-131			8.23	20
Xylenes, Total	0.0150	0.0150	0.0158	100	105	79.0-123			5.19	20
o-Xylene	0.00500	0.00494	0.00532	98.8	106	80.0-122			7.41	20
m&p-Xylenes	0.0100	0.0101	0.0105	101	105	80.0-122			3.88	20
(S) Toluene-d8				*108*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*107*	*114*	*70.0-130*				

L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	1.25	U	1.39	1.34	111	107	50	10.0-160			3.66	35
Benzene	0.250	0.00478	0.261	0.214	102	83.7	50	17.0-158			19.8	27
Bromodichloromethane	0.250	U	0.258	0.223	103	89.2	50	31.0-150			14.6	27
Bromoform	0.250	U	0.272	0.238	109	95.2	50	29.0-150			13.3	29
Bromomethane	0.250	U	0.244	0.189	97.6	75.6	50	10.0-160			25.4	38
n-Butylbenzene	0.250	U	0.224	0.193	89.6	77.2	50	31.0-150			14.9	30

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L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
sec-Butylbenzene	0.250	U	0.231	0.184	92.4	73.6	50	33.0-155			22.7	29
Carbon disulfide	0.250	U	0.214	0.129	85.6	51.6	50	10.0-156		J3	49.6	28
Carbon tetrachloride	0.250	U	0.223	0.164	89.2	65.6	50	23.0-159		J3	30.5	28
Chlorobenzene	0.250	U	0.254	0.215	102	86.0	50	33.0-152			16.6	27
Chlorodibromomethane	0.250	U	0.268	0.250	107	100	50	37.0-149			6.95	27
Chloroethane	0.250	U	0.255	0.183	102	73.2	50	10.0-160		J3	32.9	30
Chloroform	0.250	U	0.268	0.218	107	87.2	50	29.0-154			20.6	28
Chloromethane	0.250	U	0.222	0.157	88.8	62.8	50	10.0-160		J3	34.3	29
1,2-Dibromoethane	0.250	U	0.288	0.252	115	101	50	34.0-147			13.3	27
1,1-Dichloroethane	0.250	U	0.255	0.201	102	80.4	50	25.0-158			23.7	27
1,2-Dichloroethane	0.250	U	0.284	0.248	114	99.2	50	29.0-151			13.5	27
1,1-Dichloroethene	0.250	0.0500	0.286	0.207	94.4	62.8	50	11.0-160		J3	32.0	29
cis-1,2-Dichloroethene	0.250	2.70	2.90	2.96	80.0	104	50	10.0-160			2.05	27
trans-1,2-Dichloroethene	0.250	0.0199	0.263	0.193	97.2	69.2	50	17.0-153		J3	30.7	27
1,2-Dichloropropane	0.250	U	0.266	0.223	106	89.2	50	30.0-156			17.6	27
cis-1,3-Dichloropropene	0.250	U	0.261	0.218	104	87.2	50	34.0-149			18.0	28
trans-1,3-Dichloropropene	0.250	U	0.247	0.232	98.8	92.8	50	32.0-149			6.26	28
Ethylbenzene	0.250	U	0.252	0.219	101	87.6	50	30.0-155			14.0	27
2-Hexanone	1.25	U	1.43	1.29	114	103	50	21.0-160			10.3	29
Isopropylbenzene	0.250	U	0.246	0.203	98.4	81.2	50	28.0-157			19.2	27
p-Isopropyltoluene	0.250	U	0.241	0.194	96.4	77.6	50	30.0-154			21.6	29
2-Butanone (MEK)	1.25	U	1.34	1.27	107	102	50	10.0-160			5.36	32
Methylene Chloride	0.250	U	0.235	0.201	94.0	80.4	50	23.0-144			15.6	28
4-Methyl-2-pentanone (MIBK)	1.25	U	1.41	1.27	113	102	50	29.0-160			10.4	29
Methyl tert-butyl ether	0.250	U	0.307	0.316	123	126	50	28.0-150			2.89	29
Naphthalene	0.250	U	0.275	0.257	110	103	50	12.0-156			6.77	35
n-Propylbenzene	0.250	U	0.223	0.176	89.2	70.4	50	31.0-154			23.6	28
Styrene	0.250	U	0.248	0.214	99.2	85.6	50	33.0-155			14.7	28
1,1,1,2-Tetrachloroethane	0.250	U	0.265	0.232	106	92.8	50	36.0-151			13.3	29
1,1,2,2-Tetrachloroethane	0.250	U	0.256	0.227	102	90.8	50	33.0-150			12.0	28
Tetrachloroethene	0.250	U	0.261	0.207	104	82.8	50	10.0-160			23.1	27
Toluene	0.250	U	0.289	0.292	116	117	50	26.0-154			1.03	28
1,1,1-Trichloroethane	0.250	U	0.255	0.182	102	72.8	50	23.0-160		J3	33.4	28
1,1,2-Trichloroethane	0.250	0.0141	0.286	0.277	109	105	50	35.0-147			3.20	27
Trichloroethene	0.250	74.2	71.3	75.8	0.000	640	50	10.0-160	E V	E V	6.12	25
1,2,4-Trimethylbenzene	0.250	U	0.243	0.221	97.2	88.4	50	26.0-154			9.48	27
1,3,5-Trimethylbenzene	0.250	U	0.226	0.184	90.4	73.6	50	28.0-153			20.5	27
Vinyl chloride	0.250	0.127	0.378	0.287	100	64.0	50	10.0-160		J3	27.4	27
Xylenes, Total	0.750	U	0.788	0.734	105	97.9	50	29.0-154			7.10	28
o-Xylene	0.250	U	0.269	0.247	108	98.8	50	45.0-144			8.53	26

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
m&p-Xylenes	0.500	U	0.519	0.487	104	97.4	50	43.0-146			6.36	26
(S) Toluene-d8					*105*	*109*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.1*	*101*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*111*	*110*		*70.0-130*				

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582701-2 10/17/20 09:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582701-2 10/17/20 09:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylene	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582701-1 10/17/20 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0201	80.4	19.0-160	
Benzene	0.00500	0.00504	101	70.0-123	
Bromodichloromethane	0.00500	0.00441	88.2	75.0-120	
Bromoform	0.00500	0.00420	84.0	68.0-132	
Bromomethane	0.00500	0.00604	121	10.0-160	
n-Butylbenzene	0.00500	0.00432	86.4	73.0-125	
sec-Butylbenzene	0.00500	0.00416	83.2	75.0-125	
Carbon disulfide	0.00500	0.00485	97.0	61.0-128	
Carbon tetrachloride	0.00500	0.00437	87.4	68.0-126	
Chlorobenzene	0.00500	0.00509	102	80.0-121	
Chlorodibromomethane	0.00500	0.00427	85.4	77.0-125	
Chloroethane	0.00500	0.00532	106	47.0-150	
Chloroform	0.00500	0.00477	95.4	73.0-120	
Chloromethane	0.00500	0.00409	81.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00481	96.2	80.0-122	
1,1-Dichloroethane	0.00500	0.00458	91.6	70.0-126	
1,2-Dichloroethane	0.00500	0.00458	91.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00529	106	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00459	91.8	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00484	96.8	73.0-120	
1,2-Dichloropropane	0.00500	0.00491	98.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00453	90.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00431	86.2	78.0-124	

Received by OCD: 6/23/2021 4:05:29 PM

Laboratory Control Sample (LCS)

(LCS) R3582701-1 10/17/20 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00510	102	79.0-123	
2-Hexanone	0.0250	0.0221	88.4	67.0-149	
Isopropylbenzene	0.00500	0.00446	89.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00440	88.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0217	86.8	44.0-160	
Methylene Chloride	0.00500	0.00527	105	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0220	88.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00468	93.6	68.0-125	
Naphthalene	0.00500	0.00345	69.0	54.0-135	
n-Propylbenzene	0.00500	0.00451	90.2	77.0-124	
Styrene	0.00500	0.00460	92.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00454	90.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00389	77.8	65.0-130	
Tetrachloroethene	0.00500	0.00575	115	72.0-132	
Toluene	0.00500	0.00476	95.2	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00462	92.4	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00510	102	80.0-120	
Trichloroethene	0.00500	0.00580	116	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00422	84.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00454	90.8	76.0-122	
Vinyl chloride	0.00500	0.00418	83.6	67.0-131	
Xylenes, Total	0.0150	0.0148	98.7	79.0-123	
o-Xylene	0.00500	0.00481	96.2	80.0-122	
m&p-Xylene	0.0100	0.00999	99.9	80.0-122	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*88.3*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583292-2 10/19/20 14:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*99.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583292-3 10/19/20 14:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.00500	0.00398	79.6	78.0-124	
(S) Toluene-d8			*98.1*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3580820-1 10/13/20 06:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*81.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3580820-2 10/13/20 06:46 • (LCSD) R3580820-3 10/13/20 07:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.45	1.46	96.7	97.3	50.0-150			0.687	20
(S) o-Terphenyl				*91.5*	*92.0*	*31.0-160*				

Released to Imaging: 11/21/2023 10:16:55 AM

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

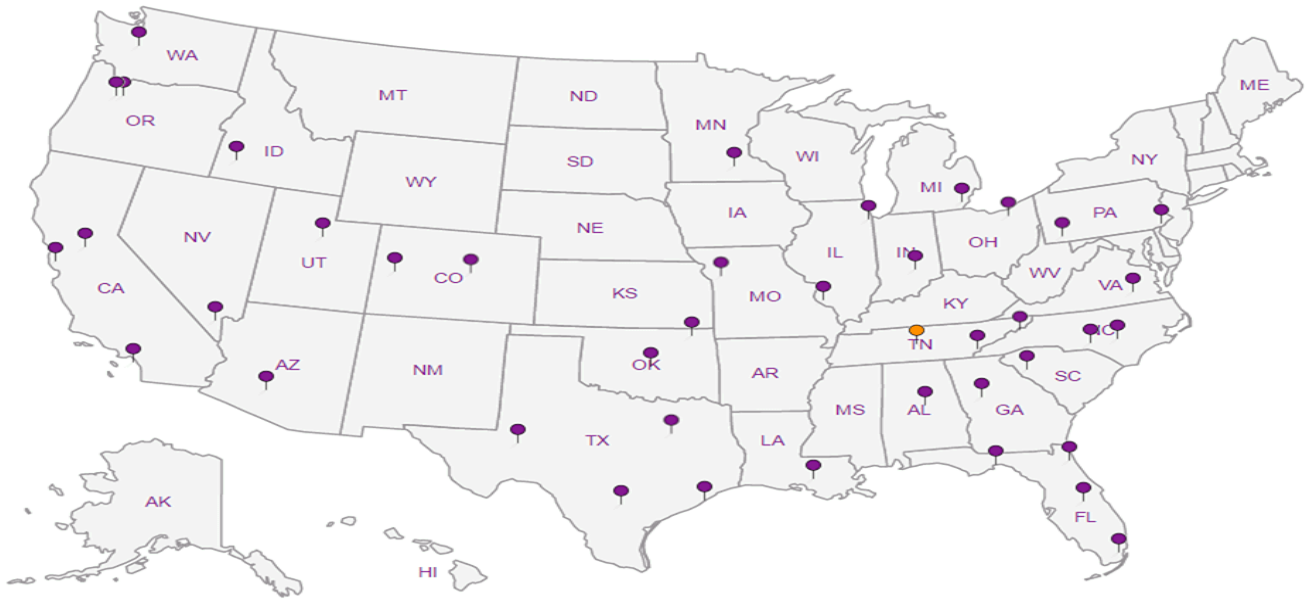
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
TRC Solutions - Austin, TX	330538.0000.0000	L1271283	10/21/20 21:37	43 of 44

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: TEL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-TEL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # TEL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

9-18/19

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 171283

Table # 1191

Acctnum: TRCATX

Template: T115528

Prelogin: P799955

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
TEL-4	Grab	GW		10/6/20	955	9	x	x	x	x	x	x	x					-01
TEL-3	Grab	GW		10/6/20	845	9	x	x	x	x	x	x	x					02
~~TEL-2~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~03~~
~~TEL-1~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~04~~
MW-49	Grab	GW		10/6/20	1300	10	x	x	x		x	x	x	x	x		SU	03
DUP-TEL-01	Grab	GW		10/6/20	1100	11	x	x	x	x	x	x	x			x		04
EB-TEL-01	Grab	GW		10/6/20	910	9	x	x	x	x	x	x	x					05
Trip Blank-TEL-01	Grab	GW		10/6/20	—	1	x											06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: X Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=9 °C Bottles Received: 46
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 02, 2021

Revised Report

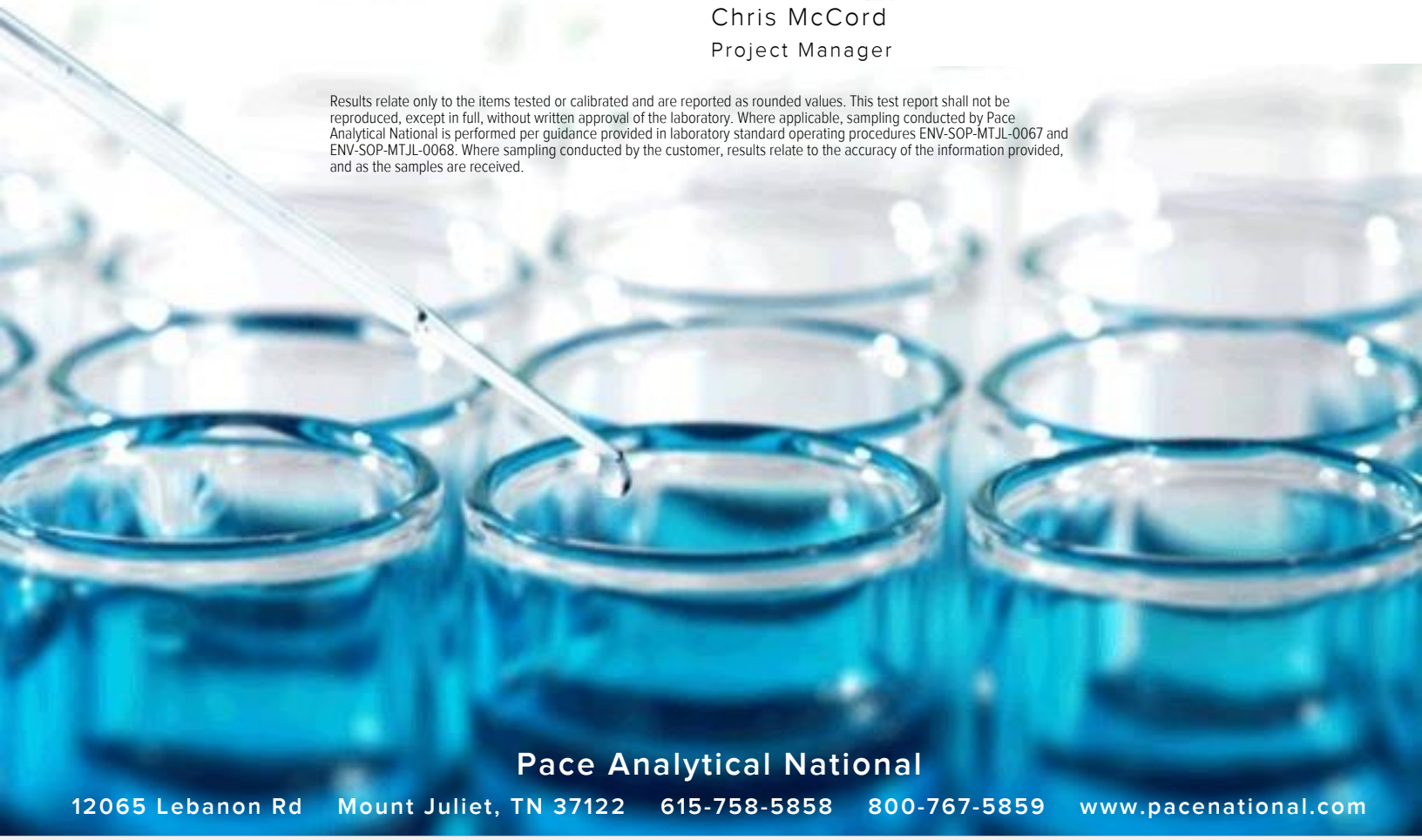
TRC Solutions - Austin, TX

Sample Delivery Group:	L1271284
Samples Received:	10/08/2020
Project Number:	330538.0000.0000
Description:	NCL Fall 2020
Site:	NCL - NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-45 L1271284-01 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/06/20 16:10 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:17	10/16/20 21:17	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1560164	1	10/15/20 23:14	10/16/20 04:44	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/12/20 18:19	10/12/20 18:19	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	5	10/12/20 18:02	10/12/20 18:02	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557452	1	10/11/20 15:27	10/12/20 09:23	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 04:59	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 02:37	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560663	1	10/17/20 05:42	10/17/20 05:42	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561380	1	10/19/20 19:37	10/19/20 19:37	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557494	1	10/12/20 09:00	10/14/20 00:35	DMG	Mt. Juliet, TN

NCL-33 L1271284-02 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/07/20 10:30 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:21	10/16/20 21:21	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 18:37	10/12/20 18:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/12/20 18:55	10/12/20 18:55	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556438	1	10/11/20 21:47	10/14/20 02:40	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 12:17	10/17/20 12:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 01:45	10/20/20 01:45	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	10	10/14/20 07:17	10/18/20 02:14	DMG	Mt. Juliet, TN

NCL-44 L1271284-03 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/07/20 09:50 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:22	10/16/20 21:22	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 19:12	10/12/20 19:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	50	10/12/20 19:30	10/12/20 19:30	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 15:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 12:37	10/17/20 12:37	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 03:20	DMG	Mt. Juliet, TN

NCL-32 L1271284-04 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/07/20 09:05 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	2	10/16/20 21:54	10/16/20 21:54	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 19:48	10/12/20 19:48	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	50	10/12/20 20:06	10/12/20 20:06	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 15:43	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 12:56	10/17/20 12:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 02:06	10/20/20 02:06	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 03:40	DMG	Mt. Juliet, TN

MW-108 L1271284-05 GW

Collected by	Collected date/time	Received date/time
Scott Uds/HMI Team	10/06/20 14:10	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:55	10/16/20 21:55	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 21:08	10/12/20 21:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	10	10/12/20 22:33	10/12/20 22:33	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 15:47	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	5	10/17/20 15:51	10/17/20 15:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	5	10/20/20 04:47	10/20/20 04:47	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 01:11	DMG	Mt. Juliet, TN

NCL-31 L1271284-06 GW

Collected by	Collected date/time	Received date/time
Scott Uds/HMI Team	10/06/20 13:25	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:31	10/16/20 21:31	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 23:16	10/12/20 23:16	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	50	10/12/20 23:37	10/12/20 23:37	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 15:51	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 13:15	10/17/20 13:15	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 02:26	10/20/20 02:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 10:17	DMG	Mt. Juliet, TN

MW-55 L1271284-07 GW

Collected by	Collected date/time	Received date/time
Scott Uds/HMI Team	10/07/20 08:25	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:32	10/16/20 21:32	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1560164	1	10/15/20 23:14	10/16/20 04:45	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/12/20 23:58	10/12/20 23:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	50	10/13/20 00:19	10/13/20 00:19	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557452	1	10/11/20 15:27	10/12/20 09:25	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 05:02	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 19:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	1	10/14/20 10:28	10/14/20 10:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	10	10/17/20 16:10	10/17/20 16:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	10	10/20/20 06:08	10/20/20 06:08	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 04:00	DMG	Mt. Juliet, TN

MW-54A L1271284-08 GW

Collected by	Collected date/time	Received date/time
Scott Uds/HMI Team	10/06/20 09:30	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:33	10/16/20 21:33	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 01:23	10/13/20 01:23	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	20	10/13/20 01:45	10/13/20 01:45	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 19:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1562049	1	10/20/20 11:55	10/20/20 11:55	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 02:02	DMG	Mt. Juliet, TN

NCL-49 L1271284-09 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/06/20 10:10 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	5	10/16/20 21:36	10/16/20 21:36	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 02:06	10/13/20 02:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/13/20 02:27	10/13/20 02:27	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 19:52	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 13:54	10/17/20 13:54	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 02:46	10/20/20 02:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 09:52	DMG	Mt. Juliet, TN

DUP-NCL-01 L1271284-10 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/06/20 11:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	5	10/16/20 21:37	10/16/20 21:37	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 02:49	10/13/20 02:49	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/13/20 03:24	10/13/20 03:24	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 19:55	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 14:13	10/17/20 14:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 03:06	10/20/20 03:06	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 02:53	DMG	Mt. Juliet, TN

EB-NCL-01 L1271284-11 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/07/20 09:15 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:39	10/16/20 21:39	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 03:46	10/13/20 03:46	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 19:59	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 11:19	10/17/20 11:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 03:26	10/20/20 03:26	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 04:20	DMG	Mt. Juliet, TN

TRIP BLANK-NCL-01 L1271284-12 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/06/20 00:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 11:38	10/17/20 11:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 00:04	10/20/20 00:04	ACG	Mt. Juliet, TN

MW-53R L1271284-13 GW

Collected by: Scott Uds/HMI Team | Collected date/time: 10/06/20 08:50 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558995	1	10/16/20 21:44	10/16/20 21:44	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 05:41	10/13/20 05:41	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	50	10/13/20 06:02	10/13/20 06:02	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:03	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 14:33	10/17/20 14:33	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 03:46	10/20/20 03:46	ACG	Mt. Juliet, TN

MW-53R L1271284-13 GW

			Collected by	Collected date/time	Received date/time
			Scott Uds/HMI Team	10/06/20 08:50	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 03:19	DMG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 10/22/20 17:19
Level II Report - Version 2: 02/01/21 21:44

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1271284-12	TRIP BLANK-NCL-01	8260B

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	4970		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:17	WG1558995

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	10/16/2020 04:44	WG1560164

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	429		1.90	5.00	5	10/12/2020 18:02	WG1557660
Fluoride	1.70		0.320	0.750	5	10/12/2020 18:02	WG1557660
Sulfate	2350		59.4	500	100	10/12/2020 18:19	WG1557660

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/12/2020 09:23	WG1557452

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.620		0.0254	0.200	1	10/12/2020 04:59	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00493		0.000735	0.00200	1	10/14/2020 02:37	WG1556438
Barium	0.0149	J	0.00778	0.0200	1	10/14/2020 02:37	WG1556438
Cadmium	U		0.000478	0.00100	1	10/14/2020 02:37	WG1556438
Calcium	577		0.480	1.00	1	10/14/2020 02:37	WG1556438
Chromium	U		0.00149	0.00200	1	10/14/2020 02:37	WG1556438
Cobalt	U		0.000477	0.00200	1	10/14/2020 02:37	WG1556438
Iron	1.26		0.0489	0.100	1	10/14/2020 02:37	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 02:37	WG1556438
Manganese	0.526		0.00132	0.00500	1	10/14/2020 02:37	WG1556438
Nickel	0.00569		0.000952	0.00200	1	10/14/2020 02:37	WG1556438
Potassium	4.70		0.534	2.00	1	10/14/2020 02:37	WG1556438
Selenium	U		0.000657	0.00200	1	10/14/2020 02:37	WG1556438
Sodium	359		0.630	2.00	1	10/14/2020 02:37	WG1556438
Uranium	U		0.00754	0.0200	1	10/14/2020 02:37	WG1556438
Vanadium	0.00106	J	0.000986	0.00500	1	10/14/2020 02:37	WG1556438

Received by OCD: 6/23/2021 4:05:29 PM

MW-45
Collected date/time: 10/06/20 16:10
L1271284

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U	J3	0.0113	0.0500	1	10/17/2020 05:42	WG1560663
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:42	WG1560663
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:42	WG1560663
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:42	WG1560663
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:42	WG1560663
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:42	WG1560663
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:42	WG1560663
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:42	WG1560663
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 05:42	WG1560663
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:42	WG1560663
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:42	WG1560663
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:42	WG1560663
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:42	WG1560663
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:42	WG1560663
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:42	WG1560663
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:42	WG1560663
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:42	WG1560663
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:42	WG1560663
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:42	WG1560663
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:42	WG1560663
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:42	WG1560663
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:42	WG1560663
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 05:42	WG1560663
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:42	WG1560663
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 05:42	WG1560663
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:42	WG1560663
2-Butanone (MEK)	U	J3	0.00119	0.0100	1	10/17/2020 05:42	WG1560663
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:42	WG1560663
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:42	WG1560663
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:42	WG1560663
Methyl tert-butyl ether	0.0124		0.000101	0.00100	1	10/17/2020 05:42	WG1560663
Naphthalene	U		0.00100	0.00500	1	10/17/2020 05:42	WG1560663
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 05:42	WG1560663
Styrene	U		0.000118	0.00100	1	10/17/2020 05:42	WG1560663
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:42	WG1560663
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:42	WG1560663
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:42	WG1560663
Toluene	U		0.000278	0.00100	1	10/17/2020 05:42	WG1560663
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 05:42	WG1560663
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:42	WG1560663
Trichloroethene	U		0.000190	0.00100	1	10/19/2020 19:37	WG1561380
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:42	WG1560663
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:42	WG1560663
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:42	WG1560663
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:42	WG1560663
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:42	WG1560663
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:42	WG1560663
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 05:42*	WG1560663
(S) Toluene-d8	*98.4*			*80.0-120*		*10/19/2020 19:37*	WG1561380
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 05:42*	WG1560663
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*10/19/2020 19:37*	WG1561380
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*10/17/2020 05:42*	WG1560663
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/19/2020 19:37*	WG1561380

Released to Imaging: 11/21/2023 10:16:55 AM

MW-43
Collected date/time: 10/06/20 16:10
L1271284

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.728		0.0247	0.100	1	10/14/2020 00:35	WG1557494
(S) o-Terphenyl	*88.9*			*31.0-160*		*10/14/2020 00:35*	WG1557494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3960		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:21	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	667		37.9	100	100	10/12/2020 18:55	WG1557660
Fluoride	2.64		0.0640	0.150	1	10/12/2020 18:37	WG1557660
Sulfate	1340		59.4	500	100	10/12/2020 18:55	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00531		0.000735	0.00200	1	10/14/2020 02:40	WG1556438
Barium	0.0231		0.00778	0.0200	1	10/14/2020 02:40	WG1556438
Calcium	688		0.480	1.00	1	10/14/2020 02:40	WG1556438
Chromium	U		0.00149	0.00200	1	10/14/2020 02:40	WG1556438
Iron	4.03		0.0489	0.100	1	10/14/2020 02:40	WG1556438
Lead	U		0.00249	0.00500	1	10/14/2020 02:40	WG1556438
Manganese	0.188		0.00132	0.00500	1	10/14/2020 02:40	WG1556438
Potassium	6.43		0.534	2.00	1	10/14/2020 02:40	WG1556438
Selenium	0.00144	J	0.000657	0.00200	1	10/14/2020 02:40	WG1556438
Sodium	178		0.630	2.00	1	10/14/2020 02:40	WG1556438

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:17	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:17	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:17	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:17	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:17	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:17	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 12:17	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:17	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:17	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:17	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:17	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:17	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:17	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:17	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:17	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:17	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:17	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:17	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:17	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:17	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:17	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:17	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:17	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:17	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 12:17	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:17	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:17	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:17	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:17	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:17	WG1560666
Methyl tert-butyl ether	0.000230	J	0.000101	0.00100	1	10/17/2020 12:17	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:17	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:17	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 12:17	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:17	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:17	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:17	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 12:17	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:17	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:17	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 01:45	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 12:17	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:17	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:17	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:17	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:17	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:17	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 12:17*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 01:45*	WG1561731
(S) 4-Bromofluorobenzene	*97.9*			*77.0-126*		*10/17/2020 12:17*	WG1560666
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2020 01:45*	WG1561731
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/17/2020 12:17*	WG1560666
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/20/2020 01:45*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.54		0.247	1.00	10	10/18/2020 02:14	WG1557910
(S) o-Terphenyl	*183*	J1		*31.0-160*		*10/18/2020 02:14*	WG1557910

Sample Narrative:

L1271284-02 WG1557910: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2730		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:22	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	126	B	19.0	50.0	50	10/12/2020 19:30	WG1557660
Fluoride	1.63		0.0640	0.150	1	10/12/2020 19:12	WG1557660
Sulfate	1170		29.7	250	50	10/12/2020 19:30	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0211		0.000735	0.00200	1	10/15/2020 15:39	WG1556439
Barium	0.0201		0.00778	0.0200	1	10/15/2020 15:39	WG1556439
Calcium	358		0.480	1.00	1	10/15/2020 15:39	WG1556439
Chromium	0.00369		0.00149	0.00200	1	10/15/2020 15:39	WG1556439
Iron	0.641		0.0489	0.100	1	10/15/2020 15:39	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 15:39	WG1556439
Manganese	0.820		0.00132	0.00500	1	10/15/2020 15:39	WG1556439
Potassium	2.29		0.534	2.00	1	10/15/2020 15:39	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 15:39	WG1556439
Sodium	142		0.630	2.00	1	10/15/2020 15:39	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:37	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:37	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:37	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:37	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:37	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:37	WG1560666
sec-Butylbenzene	0.000615	J	0.000125	0.00100	1	10/17/2020 12:37	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:37	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:37	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:37	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:37	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:37	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:37	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:37	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:37	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:37	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:37	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:37	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:37	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:37	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:37	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:37	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:37	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:37	WG1560666
Isopropylbenzene	0.00164		0.000105	0.00100	1	10/17/2020 12:37	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:37	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:37	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:37	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:37	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:37	WG1560666
Methyl tert-butyl ether	0.000412	J	0.000101	0.00100	1	10/17/2020 12:37	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:37	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:37	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 12:37	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:37	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:37	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:37	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 12:37	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:37	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:37	WG1560666
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 12:37	WG1560666
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 12:37	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:37	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:37	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:37	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:37	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:37	WG1560666
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 12:37*	WG1560666
(S) 4-Bromofluorobenzene	*96.9*			*77.0-126*		*10/17/2020 12:37*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/17/2020 12:37*	WG1560666

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.12		0.0247	0.100	1	10/15/2020 03:20	WG1557910
(S) o-Terphenyl	*104*			*31.0-160*		*10/15/2020 03:20*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3040		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	5.82		0.100	0.200	2	10/16/2020 21:54	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	90.7		0.379	1.00	1	10/12/2020 19:48	WG1557660
Fluoride	1.27		0.0640	0.150	1	10/12/2020 19:48	WG1557660
Sulfate	1640		29.7	250	50	10/12/2020 20:06	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00236		0.000735	0.00200	1	10/15/2020 15:43	WG1556439
Barium	0.0160	J	0.00778	0.0200	1	10/15/2020 15:43	WG1556439
Calcium	483		0.480	1.00	1	10/15/2020 15:43	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 15:43	WG1556439
Iron	0.0494	J	0.0489	0.100	1	10/15/2020 15:43	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 15:43	WG1556439
Manganese	1.73		0.00132	0.00500	1	10/15/2020 15:43	WG1556439
Potassium	3.47		0.534	2.00	1	10/15/2020 15:43	WG1556439
Selenium	0.00271		0.000657	0.00200	1	10/15/2020 15:43	WG1556439
Sodium	118		0.630	2.00	1	10/15/2020 15:43	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:56	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:56	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:56	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:56	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:56	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:56	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 12:56	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:56	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:56	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:56	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:56	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:56	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:56	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:56	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:56	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:56	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:56	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:56	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:56	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:56	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:56	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:56	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:56	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:56	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 12:56	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:56	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:56	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:56	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:56	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:56	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 12:56	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:56	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:56	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 12:56	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:56	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:56	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:56	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 12:56	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:56	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:56	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 02:06	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 12:56	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:56	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:56	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:56	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:56	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:56	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 12:56*	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/20/2020 02:06*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 12:56*	WG1560666
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/20/2020 02:06*	WG1561731
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/17/2020 12:56*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 02:06*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.800		0.0247	0.100	1	10/15/2020 03:40	WG1557910
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/15/2020 03:40*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1150		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:55	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	15.8		0.379	1.00	1	10/12/2020 21:08	WG1557660
Fluoride	1.48		0.0640	0.150	1	10/12/2020 21:08	WG1557660
Sulfate	221		5.94	50.0	10	10/12/2020 22:33	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00115	J	0.000735	0.00200	1	10/15/2020 15:47	WG1556439
Barium	0.0469		0.00778	0.0200	1	10/15/2020 15:47	WG1556439
Calcium	139		0.480	1.00	1	10/15/2020 15:47	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 15:47	WG1556439
Iron	U		0.0489	0.100	1	10/15/2020 15:47	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 15:47	WG1556439
Manganese	0.0593		0.00132	0.00500	1	10/15/2020 15:47	WG1556439
Potassium	U		0.534	2.00	1	10/15/2020 15:47	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 15:47	WG1556439
Sodium	46.8		0.630	2.00	1	10/15/2020 15:47	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	10/17/2020 15:51	WG1560666
Benzene	0.100		0.000471	0.00500	5	10/17/2020 15:51	WG1560666
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 15:51	WG1560666
Bromoform	U		0.000645	0.00500	5	10/17/2020 15:51	WG1560666
Bromomethane	U		0.00303	0.0250	5	10/17/2020 15:51	WG1560666
n-Butylbenzene	U		0.000785	0.00500	5	10/17/2020 15:51	WG1560666
sec-Butylbenzene	0.00187	J	0.000625	0.00500	5	10/17/2020 15:51	WG1560666
Carbon disulfide	U		0.000481	0.00500	5	10/17/2020 15:51	WG1560666
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 15:51	WG1560666
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 15:51	WG1560666
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 15:51	WG1560666
Chloroethane	U		0.000960	0.0250	5	10/17/2020 15:51	WG1560666
Chloroform	U		0.000555	0.0250	5	10/17/2020 15:51	WG1560666
Chloromethane	U		0.00480	0.0125	5	10/17/2020 15:51	WG1560666
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 15:51	WG1560666
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 15:51	WG1560666
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 15:51	WG1560666
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 15:51	WG1560666
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 15:51	WG1560666
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 15:51	WG1560666
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 15:51	WG1560666
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 15:51	WG1560666
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	10/17/2020 15:51	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000685	0.00500	5	10/17/2020 15:51	WG1560666
Isopropylbenzene	0.0119		0.000525	0.00500	5	10/17/2020 15:51	WG1560666
p-Isopropyltoluene	U		0.000600	0.00500	5	10/17/2020 15:51	WG1560666
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 15:51	WG1560666
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 15:51	WG1560666
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 15:51	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 15:51	WG1560666
Methyl tert-butyl ether	U		0.000505	0.00500	5	10/17/2020 15:51	WG1560666
Naphthalene	U		0.00500	0.0250	5	10/17/2020 15:51	WG1560666
n-Propylbenzene	0.00864		0.000497	0.00500	5	10/17/2020 15:51	WG1560666
Styrene	U		0.000590	0.00500	5	10/17/2020 15:51	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 15:51	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 15:51	WG1560666
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 15:51	WG1560666
Toluene	0.00141	J	0.00139	0.00500	5	10/17/2020 15:51	WG1560666
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 15:51	WG1560666
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 15:51	WG1560666
Trichloroethene	U		0.000950	0.00500	5	10/20/2020 04:47	WG1561731
1,2,4-Trimethylbenzene	0.00527		0.00161	0.00500	5	10/17/2020 15:51	WG1560666
1,3,5-Trimethylbenzene	0.000782	J	0.000520	0.00500	5	10/17/2020 15:51	WG1560666
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 15:51	WG1560666
o-Xylene	U		0.000870	0.00500	5	10/17/2020 15:51	WG1560666
m&p-Xylene	0.0176		0.00215	0.0100	5	10/17/2020 15:51	WG1560666
Xylenes, Total	0.0176		0.000870	0.0150	5	10/17/2020 15:51	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 15:51*	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/20/2020 04:47*	WG1561731
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 15:51*	WG1560666
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/20/2020 04:47*	WG1561731
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/17/2020 15:51*	WG1560666
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/20/2020 04:47*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.18		0.0247	0.100	1	10/15/2020 01:11	WG1557495
(S) o-Terphenyl	*106*			*31.0-160*		*10/15/2020 01:11*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2460		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:31	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	28.6		0.379	1.00	1	10/12/2020 23:16	WG1557660
Fluoride	1.23		0.0640	0.150	1	10/12/2020 23:16	WG1557660
Sulfate	1360		29.7	250	50	10/12/2020 23:37	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0120		0.000735	0.00200	1	10/15/2020 15:51	WG1556439
Barium	0.0129	J	0.00778	0.0200	1	10/15/2020 15:51	WG1556439
Calcium	290		0.480	1.00	1	10/15/2020 15:51	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 15:51	WG1556439
Iron	0.689		0.0489	0.100	1	10/15/2020 15:51	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 15:51	WG1556439
Manganese	2.15		0.00132	0.00500	1	10/15/2020 15:51	WG1556439
Potassium	U		0.534	2.00	1	10/15/2020 15:51	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 15:51	WG1556439
Sodium	69.7		0.630	2.00	1	10/15/2020 15:51	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 13:15	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 13:15	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 13:15	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 13:15	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 13:15	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 13:15	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 13:15	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 13:15	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 13:15	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 13:15	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 13:15	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 13:15	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 13:15	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 13:15	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 13:15	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 13:15	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 13:15	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 13:15	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 13:15	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 13:15	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 13:15	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 13:15	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 13:15	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	0.000275	J	0.000137	0.00100	1	10/17/2020 13:15	WG1560666
Isopropylbenzene	0.000108	J	0.000105	0.00100	1	10/17/2020 13:15	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 13:15	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 13:15	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 13:15	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 13:15	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 13:15	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 13:15	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 13:15	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 13:15	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 13:15	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 13:15	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 13:15	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 13:15	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 13:15	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 13:15	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 13:15	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 02:26	WG1561731
1,2,4-Trimethylbenzene	0.000771	J	0.000322	0.00100	1	10/17/2020 13:15	WG1560666
1,3,5-Trimethylbenzene	0.000160	J	0.000104	0.00100	1	10/17/2020 13:15	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 13:15	WG1560666
o-Xylene	0.000396	J	0.000174	0.00100	1	10/17/2020 13:15	WG1560666
m&p-Xylene	0.000833	J	0.000430	0.00200	1	10/17/2020 13:15	WG1560666
Xylenes, Total	0.00123	J	0.000174	0.00300	1	10/17/2020 13:15	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 13:15*	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2020 02:26*	WG1561731
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 13:15*	WG1560666
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2020 02:26*	WG1561731
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*10/17/2020 13:15*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 02:26*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.587		0.0247	0.100	1	10/15/2020 10:17	WG1557495
(S) o-Terphenyl	*103*			*31.0-160*		*10/15/2020 10:17*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	3010		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:32	WG1558995

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	10/16/2020 04:45	WG1560164

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	505		19.0	50.0	50	10/13/2020 00:19	WG1557660
Fluoride	1.30		0.0640	0.150	1	10/12/2020 23:58	WG1557660
Sulfate	949		29.7	250	50	10/13/2020 00:19	WG1557660

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/12/2020 09:25	WG1557452

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.695		0.0254	0.200	1	10/12/2020 05:02	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00684		0.000735	0.00200	1	10/15/2020 19:44	WG1556439
Barium	0.0131	J	0.00778	0.0200	1	10/15/2020 19:44	WG1556439
Cadmium	U		0.000478	0.00100	1	10/15/2020 19:44	WG1556439
Calcium	333		0.480	1.00	1	10/15/2020 19:44	WG1556439
Chromium	0.00201		0.00149	0.00200	1	10/15/2020 19:44	WG1556439
Cobalt	U		0.000477	0.00200	1	10/15/2020 19:44	WG1556439
Iron	0.0508	J	0.0489	0.100	1	10/15/2020 19:44	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 19:44	WG1556439
Manganese	0.168		0.00132	0.00500	1	10/15/2020 19:44	WG1556439
Nickel	0.00670		0.000952	0.00200	1	10/15/2020 19:44	WG1556439
Potassium	0.842	J	0.534	2.00	1	10/15/2020 19:44	WG1556439
Selenium	0.00120	J	0.000657	0.00200	1	10/15/2020 19:44	WG1556439
Sodium	228		0.630	2.00	1	10/15/2020 19:44	WG1556439
Uranium	0.0364		0.00754	0.0200	1	10/15/2020 19:44	WG1556439
Vanadium	0.0186		0.000986	0.00500	1	10/15/2020 19:44	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	0.635		0.0314	0.100	1	10/14/2020 10:28	WG1558684

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*119*			*78.0-120*		*10/14/2020 10:28*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	10/17/2020 16:10	WG1560666
Benzene	U		0.000941	0.0100	10	10/17/2020 16:10	WG1560666
Bromodichloromethane	U		0.00136	0.0100	10	10/17/2020 16:10	WG1560666
Bromoform	U		0.00129	0.0100	10	10/17/2020 16:10	WG1560666
Bromomethane	U		0.00605	0.0500	10	10/17/2020 16:10	WG1560666
n-Butylbenzene	U		0.00157	0.0100	10	10/17/2020 16:10	WG1560666
sec-Butylbenzene	U		0.00125	0.0100	10	10/17/2020 16:10	WG1560666
Carbon disulfide	U		0.000962	0.0100	10	10/17/2020 16:10	WG1560666
Carbon tetrachloride	U		0.00128	0.0100	10	10/17/2020 16:10	WG1560666
Chlorobenzene	U		0.00116	0.0100	10	10/17/2020 16:10	WG1560666
Chlorodibromomethane	U		0.00140	0.0100	10	10/17/2020 16:10	WG1560666
Chloroethane	U		0.00192	0.0500	10	10/17/2020 16:10	WG1560666
Chloroform	U		0.00111	0.0500	10	10/17/2020 16:10	WG1560666
Chloromethane	U		0.00960	0.0250	10	10/17/2020 16:10	WG1560666
1,2-Dibromoethane	U		0.00126	0.0100	10	10/17/2020 16:10	WG1560666
1,1-Dichloroethane	U		0.00100	0.0100	10	10/17/2020 16:10	WG1560666
1,2-Dichloroethane	U		0.000819	0.0100	10	10/17/2020 16:10	WG1560666
1,1-Dichloroethene	U		0.00188	0.0100	10	10/17/2020 16:10	WG1560666
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	10/17/2020 16:10	WG1560666
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	10/17/2020 16:10	WG1560666
1,2-Dichloropropane	U		0.00149	0.0100	10	10/17/2020 16:10	WG1560666
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	10/17/2020 16:10	WG1560666
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	10/17/2020 16:10	WG1560666
Ethylbenzene	U		0.00137	0.0100	10	10/17/2020 16:10	WG1560666
Isopropylbenzene	U		0.00105	0.0100	10	10/17/2020 16:10	WG1560666
p-Isopropyltoluene	U		0.00120	0.0100	10	10/17/2020 16:10	WG1560666
2-Butanone (MEK)	U		0.0119	0.100	10	10/17/2020 16:10	WG1560666
2-Hexanone	U		0.00787	0.100	10	10/17/2020 16:10	WG1560666
Methylene Chloride	U		0.00430	0.0500	10	10/17/2020 16:10	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	10/17/2020 16:10	WG1560666
Methyl tert-butyl ether	0.299		0.00101	0.0100	10	10/17/2020 16:10	WG1560666
Naphthalene	U		0.0100	0.0500	10	10/17/2020 16:10	WG1560666
n-Propylbenzene	U		0.000993	0.0100	10	10/17/2020 16:10	WG1560666
Styrene	U		0.00118	0.0100	10	10/17/2020 16:10	WG1560666
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	10/17/2020 16:10	WG1560666
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	10/17/2020 16:10	WG1560666
Tetrachloroethene	U		0.00300	0.0100	10	10/17/2020 16:10	WG1560666
Toluene	U		0.00278	0.0100	10	10/17/2020 16:10	WG1560666
1,1,1-Trichloroethane	U		0.00149	0.0100	10	10/17/2020 16:10	WG1560666
1,1,2-Trichloroethane	U		0.00158	0.0100	10	10/17/2020 16:10	WG1560666
Trichloroethene	U		0.00190	0.0100	10	10/20/2020 06:08	WG1561731
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	10/17/2020 16:10	WG1560666
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	10/17/2020 16:10	WG1560666
Vinyl chloride	U		0.00234	0.0100	10	10/17/2020 16:10	WG1560666
o-Xylene	U		0.00174	0.0100	10	10/17/2020 16:10	WG1560666
m&p-Xylene	U		0.00430	0.0200	10	10/17/2020 16:10	WG1560666
Xylenes, Total	U		0.00174	0.0300	10	10/17/2020 16:10	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 16:10*	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/20/2020 06:08*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 16:10*	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/20/2020 06:08*	WG1561731
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*10/17/2020 16:10*	WG1560666
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/20/2020 06:08*	WG1561731

Sample Narrative:

L1271284-07 WG1560666: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.34		0.0247	0.100	1	10/15/2020 04:00	WG1557910
(S) o-Terphenyl	*100*			*31.0-160*		*10/15/2020 04:00*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1990		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U	J5	0.0500	0.100	1	10/16/2020 21:33	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	196		7.58	20.0	20	10/13/2020 01:45	WG1557660
Fluoride	0.913		0.0640	0.150	1	10/13/2020 01:23	WG1557660
Sulfate	768		11.9	100	20	10/13/2020 01:45	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00516		0.000735	0.00200	1	10/15/2020 19:48	WG1556439
Barium	0.0161	J	0.00778	0.0200	1	10/15/2020 19:48	WG1556439
Calcium	374		0.480	1.00	1	10/15/2020 19:48	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 19:48	WG1556439
Iron	0.121		0.0489	0.100	1	10/15/2020 19:48	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 19:48	WG1556439
Manganese	0.625		0.00132	0.00500	1	10/15/2020 19:48	WG1556439
Potassium	U		0.534	2.00	1	10/15/2020 19:48	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 19:48	WG1556439
Sodium	60.8		0.630	2.00	1	10/15/2020 19:48	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/20/2020 11:55	WG1562049
Benzene	0.000171	J	0.0000941	0.00100	1	10/20/2020 11:55	WG1562049
Bromodichloromethane	U		0.000136	0.00100	1	10/20/2020 11:55	WG1562049
Bromoform	U		0.000129	0.00100	1	10/20/2020 11:55	WG1562049
Bromomethane	U		0.000605	0.00500	1	10/20/2020 11:55	WG1562049
n-Butylbenzene	U		0.000157	0.00100	1	10/20/2020 11:55	WG1562049
sec-Butylbenzene	U		0.000125	0.00100	1	10/20/2020 11:55	WG1562049
Carbon disulfide	U		0.0000962	0.00100	1	10/20/2020 11:55	WG1562049
Carbon tetrachloride	U		0.000128	0.00100	1	10/20/2020 11:55	WG1562049
Chlorobenzene	U		0.000116	0.00100	1	10/20/2020 11:55	WG1562049
Chlorodibromomethane	U		0.000140	0.00100	1	10/20/2020 11:55	WG1562049
Chloroethane	U		0.000192	0.00500	1	10/20/2020 11:55	WG1562049
Chloroform	U		0.000111	0.00500	1	10/20/2020 11:55	WG1562049
Chloromethane	U		0.000960	0.00250	1	10/20/2020 11:55	WG1562049
1,2-Dibromoethane	U		0.000126	0.00100	1	10/20/2020 11:55	WG1562049
1,1-Dichloroethane	U		0.000100	0.00100	1	10/20/2020 11:55	WG1562049
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/20/2020 11:55	WG1562049
1,1-Dichloroethene	U		0.000188	0.00100	1	10/20/2020 11:55	WG1562049
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/20/2020 11:55	WG1562049
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/20/2020 11:55	WG1562049
1,2-Dichloropropane	U		0.000149	0.00100	1	10/20/2020 11:55	WG1562049
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/20/2020 11:55	WG1562049
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/20/2020 11:55	WG1562049

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ethylbenzene	U		0.000137	0.00100	1	10/20/2020 11:55	WG1562049
Isopropylbenzene	U		0.000105	0.00100	1	10/20/2020 11:55	WG1562049
p-Isopropyltoluene	U		0.000120	0.00100	1	10/20/2020 11:55	WG1562049
2-Butanone (MEK)	U		0.00119	0.0100	1	10/20/2020 11:55	WG1562049
2-Hexanone	U		0.000787	0.0100	1	10/20/2020 11:55	WG1562049
Methylene Chloride	U		0.000430	0.00500	1	10/20/2020 11:55	WG1562049
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/20/2020 11:55	WG1562049
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/20/2020 11:55	WG1562049
Naphthalene	U		0.00100	0.00500	1	10/20/2020 11:55	WG1562049
n-Propylbenzene	U		0.0000993	0.00100	1	10/20/2020 11:55	WG1562049
Styrene	U		0.000118	0.00100	1	10/20/2020 11:55	WG1562049
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/20/2020 11:55	WG1562049
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/20/2020 11:55	WG1562049
Tetrachloroethene	U		0.000300	0.00100	1	10/20/2020 11:55	WG1562049
Toluene	U		0.000278	0.00100	1	10/20/2020 11:55	WG1562049
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/20/2020 11:55	WG1562049
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/20/2020 11:55	WG1562049
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 11:55	WG1562049
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/20/2020 11:55	WG1562049
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/20/2020 11:55	WG1562049
Vinyl chloride	U		0.000234	0.00100	1	10/20/2020 11:55	WG1562049
o-Xylene	U		0.000174	0.00100	1	10/20/2020 11:55	WG1562049
m&p-Xylene	U		0.000430	0.00200	1	10/20/2020 11:55	WG1562049
Xylenes, Total	U		0.000174	0.00300	1	10/20/2020 11:55	WG1562049
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 11:55*	WG1562049
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*10/20/2020 11:55*	WG1562049
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*10/20/2020 11:55*	WG1562049

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	2.82		0.0247	0.100	1	10/15/2020 02:02	WG1557495
(S) o-Terphenyl	*106*			*31.0-160*		*10/15/2020 02:02*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3380		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	10.1		0.250	0.500	5	10/16/2020 21:36	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	135	B	37.9	100	100	10/13/2020 02:27	WG1557660
Fluoride	0.606		0.0640	0.150	1	10/13/2020 02:06	WG1557660
Sulfate	1830		59.4	500	100	10/13/2020 02:27	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00141	J	0.000735	0.00200	1	10/15/2020 19:52	WG1556439
Barium	0.0129	J	0.00778	0.0200	1	10/15/2020 19:52	WG1556439
Calcium	487		0.480	1.00	1	10/15/2020 19:52	WG1556439
Chromium	0.00153	J	0.00149	0.00200	1	10/15/2020 19:52	WG1556439
Iron	U		0.0489	0.100	1	10/15/2020 19:52	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 19:52	WG1556439
Manganese	U		0.00132	0.00500	1	10/15/2020 19:52	WG1556439
Potassium	0.692	J	0.534	2.00	1	10/15/2020 19:52	WG1556439
Selenium	0.00873		0.000657	0.00200	1	10/15/2020 19:52	WG1556439
Sodium	135		0.630	2.00	1	10/15/2020 19:52	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 13:54	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 13:54	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 13:54	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 13:54	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 13:54	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 13:54	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 13:54	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 13:54	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 13:54	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 13:54	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 13:54	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 13:54	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 13:54	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 13:54	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 13:54	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 13:54	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 13:54	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 13:54	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 13:54	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 13:54	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 13:54	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 13:54	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 13:54	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 13:54	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 13:54	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 13:54	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 13:54	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 13:54	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 13:54	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 13:54	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 13:54	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 13:54	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 13:54	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 13:54	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 13:54	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 13:54	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 13:54	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 13:54	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 13:54	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 13:54	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 02:46	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 13:54	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 13:54	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 13:54	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 13:54	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 13:54	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 13:54	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 13:54*	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/20/2020 02:46*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 13:54*	WG1560666
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/20/2020 02:46*	WG1561731
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/17/2020 13:54*	WG1560666
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/20/2020 02:46*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0702	J	0.0247	0.100	1	10/15/2020 09:52	WG1557495
(S) o-Terphenyl	*91.6*			*31.0-160*		*10/15/2020 09:52*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3430		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	10.0		0.250	0.500	5	10/16/2020 21:37	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	135	B	37.9	100	100	10/13/2020 03:24	WG1557660
Fluoride	0.600		0.0640	0.150	1	10/13/2020 02:49	WG1557660
Sulfate	1820		59.4	500	100	10/13/2020 03:24	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00155	J	0.000735	0.00200	1	10/15/2020 19:55	WG1556439
Barium	0.0123	J	0.00778	0.0200	1	10/15/2020 19:55	WG1556439
Calcium	482		0.480	1.00	1	10/15/2020 19:55	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 19:55	WG1556439
Iron	U		0.0489	0.100	1	10/15/2020 19:55	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 19:55	WG1556439
Manganese	U		0.00132	0.00500	1	10/15/2020 19:55	WG1556439
Potassium	0.675	J	0.534	2.00	1	10/15/2020 19:55	WG1556439
Selenium	0.00920		0.000657	0.00200	1	10/15/2020 19:55	WG1556439
Sodium	133		0.630	2.00	1	10/15/2020 19:55	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:13	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:13	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:13	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:13	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:13	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:13	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:13	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:13	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:13	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:13	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:13	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:13	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:13	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:13	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:13	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:13	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:13	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:13	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:13	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:13	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:13	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:13	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:13	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:13	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:13	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:13	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:13	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:13	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:13	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:13	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 14:13	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:13	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:13	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 14:13	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:13	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:13	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:13	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 14:13	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:13	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:13	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 03:06	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:13	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:13	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:13	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:13	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:13	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:13	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 14:13*	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2020 03:06*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 14:13*	WG1560666
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2020 03:06*	WG1561731
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/17/2020 14:13*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 03:06*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0750	J	0.0247	0.100	1	10/15/2020 02:53	WG1557495
(S) o-Terphenyl	*94.7*			*31.0-160*		*10/15/2020 02:53*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	22.0	B	2.82	10.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:39	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.403	B J	0.379	1.00	1	10/13/2020 03:46	WG1557660
Fluoride	U		0.0640	0.150	1	10/13/2020 03:46	WG1557660
Sulfate	U		0.594	5.00	1	10/13/2020 03:46	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/15/2020 19:59	WG1556439
Barium	U		0.00778	0.0200	1	10/15/2020 19:59	WG1556439
Calcium	U		0.480	1.00	1	10/15/2020 19:59	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 19:59	WG1556439
Iron	U		0.0489	0.100	1	10/15/2020 19:59	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 19:59	WG1556439
Manganese	U		0.00132	0.00500	1	10/15/2020 19:59	WG1556439
Potassium	U		0.534	2.00	1	10/15/2020 19:59	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 19:59	WG1556439
Sodium	U		0.630	2.00	1	10/15/2020 19:59	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 11:19	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:19	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:19	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:19	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:19	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:19	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 11:19	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:19	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:19	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:19	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:19	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:19	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:19	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:19	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:19	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:19	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:19	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:19	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:19	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:19	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:19	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:19	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:19	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:19	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 11:19	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:19	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:19	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:19	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:19	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:19	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 11:19	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:19	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 11:19	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 11:19	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:19	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:19	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:19	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 11:19	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:19	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:19	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 03:26	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 11:19	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:19	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:19	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 11:19	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 11:19	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 11:19	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 11:19*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 03:26*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 11:19*	WG1560666
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/20/2020 03:26*	WG1561731
(S) 1,2-Dichloroethane-d4	*117*			*70.0-130*		*10/17/2020 11:19*	WG1560666
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/20/2020 03:26*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0437	J	0.0247	0.100	1	10/15/2020 04:20	WG1557910
(S) o-Terphenyl	*86.3*			*31.0-160*		*10/15/2020 04:20*	WG1557910

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	10/17/2020 11:38	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:38	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:38	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:38	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:38	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:38	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 11:38	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:38	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:38	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:38	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:38	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:38	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:38	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:38	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:38	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:38	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:38	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:38	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:38	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:38	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:38	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:38	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:38	WG1560666
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:38	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 11:38	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:38	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:38	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:38	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:38	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:38	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 11:38	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:38	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 11:38	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 11:38	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:38	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:38	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:38	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 11:38	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:38	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:38	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 00:04	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 11:38	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:38	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:38	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 11:38	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 11:38	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 11:38	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 11:38*	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/20/2020 00:04*	WG1561731
(S) 4-Bromofluorobenzene	*98.3*			*77.0-126*		*10/17/2020 11:38*	WG1560666
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/20/2020 00:04*	WG1561731
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*10/17/2020 11:38*	WG1560666
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/20/2020 00:04*	WG1561731

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1920		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 21:44	WG1558995

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	66.7		0.379	1.00	1	10/13/2020 05:41	WG1557660
Fluoride	1.11		0.0640	0.150	1	10/13/2020 05:41	WG1557660
Sulfate	955		29.7	250	50	10/13/2020 06:02	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00190	J	0.000735	0.00200	1	10/15/2020 20:03	WG1556439
Barium	0.0482		0.00778	0.0200	1	10/15/2020 20:03	WG1556439
Calcium	298		0.480	1.00	1	10/15/2020 20:03	WG1556439
Chromium	0.00177	J	0.00149	0.00200	1	10/15/2020 20:03	WG1556439
Iron	0.426		0.0489	0.100	1	10/15/2020 20:03	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:03	WG1556439
Manganese	0.474		0.00132	0.00500	1	10/15/2020 20:03	WG1556439
Potassium	4.08		0.534	2.00	1	10/15/2020 20:03	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 20:03	WG1556439
Sodium	69.1		0.630	2.00	1	10/15/2020 20:03	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:33	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:33	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:33	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:33	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:33	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:33	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:33	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:33	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:33	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:33	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:33	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:33	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:33	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:33	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:33	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:33	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:33	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:33	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:33	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:33	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:33	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:33	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:33	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:33	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:33	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:33	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:33	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:33	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:33	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:33	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 14:33	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:33	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:33	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 14:33	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:33	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:33	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:33	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 14:33	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:33	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:33	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 03:46	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:33	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:33	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:33	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:33	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:33	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:33	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 14:33*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 03:46*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 14:33*	WG1560666
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/20/2020 03:46*	WG1561731
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/17/2020 14:33*	WG1560666
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/20/2020 03:46*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.206		0.0247	0.100	1	10/15/2020 03:19	WG1557495
(S) o-Terphenyl	*98.9*			*31.0-160*		*10/15/2020 03:19*	WG1557495

Method Blank (MB)

(MB) R3582135-1 10/14/20 02:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	3.00	J	2.82	10.0

L1271259-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271259-01 10/14/20 02:47 • (DUP) R3582135-3 10/14/20 02:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	971	980	1	0.923		5

L1271609-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271609-01 10/14/20 02:47 • (DUP) R3582135-4 10/14/20 02:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	900	911	1	1.21		5

Laboratory Control Sample (LCS)

(LCS) R3582135-2 10/14/20 02:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8810	100	77.4-123	

Method Blank (MB)

(MB) R3581958-1 10/13/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1270630-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270630-02 10/13/20 21:36 • (DUP) R3581958-3 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	159	155	1	2.55		5

L1271301-53 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-53 10/13/20 21:36 • (DUP) R3581958-4 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4440	4390	1	1.27		5

Laboratory Control Sample (LCS)

(LCS) R3581958-2 10/13/20 21:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	77.4-123	

Method Blank (MB)

(MB) R3582500-1 10/16/20 21:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271284-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-03 10/16/20 21:22 • (DUP) R3582500-5 10/16/20 21:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271387-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271387-01 10/16/20 21:45 • (DUP) R3582500-7 10/16/20 21:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	2.65	2.66	1	0.377		20

Laboratory Control Sample (LCS)

(LCS) R3582500-2 10/16/20 21:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.35	94.0	90.0-110	

L1271284-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271284-01 10/16/20 21:17 • (MS) R3582500-3 10/16/20 21:18 • (MSD) R3582500-4 10/16/20 21:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.44	2.44	97.6	97.6	1	90.0-110			0.000	20

L1271284-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271284-08 10/16/20 21:33 • (MS) R3582500-6 10/16/20 21:35

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.94	118	1	90.0-110	J5

Method Blank (MB)

(MB) R3582107-1 10/16/20 04:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1270958-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270958-02 10/16/20 04:34 • (DUP) R3582107-3 10/16/20 04:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	0.00187	1	0.000		20

L1271284-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-07 10/16/20 04:45 • (DUP) R3582107-6 10/16/20 04:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582107-2 10/16/20 04:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.106	106	87.1-120	

L1271000-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271000-02 10/16/20 04:39 • (MS) R3582107-4 10/16/20 04:40 • (MSD) R3582107-5 10/16/20 04:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00382	0.108	0.103	104	99.2	1	90.0-110			4.74	20

L1271576-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271576-03 10/16/20 05:24 • (MS) R3582107-7 10/16/20 05:25 • (MSD) R3582107-8 10/16/20 05:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00223	0.0894	0.0935	87.2	91.3	1	90.0-110	J6		4.48	20

Method Blank (MB)

(MB) R3581098-1 10/12/20 17:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.405	J	0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271284-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-05 10/12/20 21:08 • (DUP) R3581098-3 10/12/20 21:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.8	15.8	1	0.0798		15
Fluoride	1.48	1.49	1	0.768		15

L1271284-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-05 10/12/20 22:33 • (DUP) R3581098-6 10/12/20 22:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	221	223	10	0.703		15

L1271284-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-11 10/13/20 03:46 • (DUP) R3581098-7 10/13/20 04:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	0.403	0.407	1	0.913	J	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3581098-2 10/12/20 17:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	80.0-120	
Fluoride	8.00	8.08	101	80.0-120	
Sulfate	40.0	39.4	98.6	80.0-120	

L1271284-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271284-05 10/12/20 21:08 • (MS) R3581098-4 10/12/20 21:51 • (MSD) R3581098-5 10/12/20 22:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	15.8	68.1	67.5	105	103	1	80.0-120			0.794	15
Fluoride	5.00	1.48	6.33	6.43	97.0	98.9	1	80.0-120			1.52	15

L1271284-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271284-11 10/13/20 03:46 • (MS) R3581098-8 10/13/20 04:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	0.403	50.0	99.3	1	80.0-120	
Fluoride	5.00	U	4.99	99.7	1	80.0-120	
Sulfate	50.0	U	49.7	99.4	1	80.0-120	

Method Blank (MB)

(MB) R3580427-1 10/12/20 09:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3580427-2 10/12/20 09:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00313	104	80.0-120	

L1272054-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1272054-07 10/12/20 09:09 • (MS) R3580427-3 10/12/20 09:11 • (MSD) R3580427-4 10/12/20 09:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.000137	0.00368	0.00385	118	124	1	75.0-125			4.57	20

Method Blank (MB)

(MB) R3580327-1 10/12/20 04:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3580327-2 10/12/20 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.984	98.4	80.0-120	

L1271025-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271025-08 10/12/20 04:10 • (MS) R3580327-4 10/12/20 04:15 • (MSD) R3580327-5 10/12/20 04:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.496	1.46	1.46	96.0	96.1	1	75.0-125			0.0564	20

Method Blank (MB)

(MB) R3581309-1 10/13/20 22:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581309-2 10/13/20 22:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0490	98.1	80.0-120	
Barium	0.0500	0.0507	101	80.0-120	
Cadmium	0.0500	0.0492	98.4	80.0-120	
Calcium	5.00	4.96	99.3	80.0-120	
Chromium	0.0500	0.0501	100	80.0-120	
Cobalt	0.0500	0.0503	101	80.0-120	
Iron	5.00	5.01	100	80.0-120	
Lead	0.0500	0.0500	99.9	80.0-120	
Manganese	0.0500	0.0500	99.9	80.0-120	
Nickel	0.0500	0.0504	101	80.0-120	
Potassium	5.00	4.88	97.6	80.0-120	
Selenium	0.0500	0.0500	100	80.0-120	
Sodium	5.00	4.65	93.0	80.0-120	
Uranium	0.0500	0.0494	98.7	80.0-120	
Vanadium	0.0500	0.0500	99.9	80.0-120	

L1271283-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271283-01 10/13/20 22:08 • (MS) R3581309-4 10/13/20 22:14 • (MSD) R3581309-5 10/13/20 22:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00923	0.0581	0.0576	97.7	96.8	1	75.0-125			0.768	20
Barium	0.0500	0.0180	0.0674	0.0675	98.9	99.1	1	75.0-125			0.157	20
Cadmium	0.0500	U	0.0496	0.0501	99.1	100	1	75.0-125			1.04	20
Calcium	5.00	294	296	296	49.1	39.6	1	75.0-125	V	V	0.161	20
Chromium	0.0500	0.106	0.150	0.147	88.9	82.1	1	75.0-125			2.29	20
Cobalt	0.0500	0.00237	0.0499	0.0500	95.1	95.2	1	75.0-125			0.141	20
Potassium	5.00	U	5.20	5.15	94.0	92.9	1	75.0-125			1.10	20
Iron	5.00	0.479	5.25	5.31	95.5	96.6	1	75.0-125			1.10	20
Lead	0.0500	U	0.0489	0.0506	96.0	99.4	1	75.0-125			3.36	20
Manganese	0.0500	1.24	1.25	1.24	21.9	0.000	1	75.0-125	V	V	0.896	20
Nickel	0.0500	0.140	0.182	0.173	84.2	66.8	1	75.0-125		J6	4.88	20
Selenium	0.0500	U	0.0504	0.0512	99.6	101	1	75.0-125			1.57	20
Sodium	5.00	296	297	300	32.7	83.4	1	75.0-125	V		0.848	20
Uranium	0.0500	U	0.0506	0.0515	100	102	1	75.0-125			1.64	20
Vanadium	0.0500	U	0.0502	0.0502	100	100	1	75.0-125			0.0380	20

Method Blank (MB)

(MB) R3581976-1 10/15/20 15:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	0.00111	J	0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581976-2 10/15/20 15:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0481	96.1	80.0-120	
Barium	0.0500	0.0490	97.9	80.0-120	
Cadmium	0.0500	0.0494	98.8	80.0-120	
Calcium	5.00	4.92	98.5	80.0-120	
Chromium	0.0500	0.0492	98.5	80.0-120	
Cobalt	0.0500	0.0483	96.6	80.0-120	
Iron	5.00	4.78	95.7	80.0-120	
Lead	0.0500	0.0462	92.4	80.0-120	
Manganese	0.0500	0.0481	96.3	80.0-120	
Nickel	0.0500	0.0489	97.7	80.0-120	
Potassium	5.00	4.98	99.6	80.0-120	
Selenium	0.0500	0.0490	98.0	80.0-120	
Sodium	5.00	5.08	102	80.0-120	
Uranium	0.0500	0.0504	101	80.0-120	
Vanadium	0.0500	0.0492	98.4	80.0-120	

L1271298-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-08 10/15/20 15:24 • (MS) R3581976-4 10/15/20 15:32 • (MSD) R3581976-5 10/15/20 15:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00798	0.0571	0.0546	98.3	93.2	1	75.0-125			4.57	20
Barium	0.0500	0.0148	0.0677	0.0638	106	98.0	1	75.0-125			5.95	20
Cadmium	0.0500	U	0.0506	0.0505	101	101	1	75.0-125			0.251	20
Calcium	5.00	292	297	297	96.6	92.8	1	75.0-125			0.0646	20
Chromium	0.0500	U	0.0505	0.0488	98.4	95.0	1	75.0-125			3.42	20
Cobalt	0.0500	U	0.0491	0.0473	97.3	93.7	1	75.0-125			3.73	20
Potassium	5.00	3.46	8.33	8.34	97.3	97.6	1	75.0-125			0.140	20
Iron	5.00	0.700	5.55	5.33	97.1	92.6	1	75.0-125			4.16	20
Lead	0.0500	U	0.0459	0.0461	91.8	92.1	1	75.0-125			0.331	20
Manganese	0.0500	0.491	0.522	0.507	62.9	32.6	1	75.0-125	V	V	2.94	20
Nickel	0.0500	0.0101	0.0569	0.0561	93.7	92.0	1	75.0-125			1.53	20
Selenium	0.0500	0.000658	0.0532	0.0543	105	107	1	75.0-125			1.92	20
Sodium	5.00	1030	1030	1030	117	0.000	1	75.0-125	E	E V	0.736	20
Uranium	0.0500	U	0.0539	0.0546	102	104	1	75.0-125			1.15	20
Vanadium	0.0500	0.00192	0.0515	0.0494	99.2	95.0	1	75.0-125			4.07	20

Method Blank (MB)

(MB) R3582008-2 10/14/20 07:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582008-1 10/14/20 06:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.83	87.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

Method Blank (MB)

(MB) R3582815-3 10/17/20 00:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582815-3 10/17/20 00:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582815-1 10/16/20 23:15 • (LCSD) R3582815-2 10/16/20 23:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0220	0.0302	88.0	121	19.0-160		J3	31.4	27
Benzene	0.00500	0.00490	0.00521	98.0	104	70.0-123			6.13	20
Bromodichloromethane	0.00500	0.00472	0.00530	94.4	106	75.0-120			11.6	20
Bromoform	0.00500	0.00486	0.00507	97.2	101	68.0-132			4.23	20
Bromomethane	0.00500	0.00538	0.00490	108	98.0	10.0-160			9.34	25
n-Butylbenzene	0.00500	0.00480	0.00526	96.0	105	73.0-125			9.15	20
sec-Butylbenzene	0.00500	0.00470	0.00502	94.0	100	75.0-125			6.58	20
Carbon disulfide	0.00500	0.00496	0.00522	99.2	104	61.0-128			5.11	20
Carbon tetrachloride	0.00500	0.00498	0.00532	99.6	106	68.0-126			6.60	20
Chlorobenzene	0.00500	0.00504	0.00537	101	107	80.0-121			6.34	20
Chlorodibromomethane	0.00500	0.00500	0.00515	100	103	77.0-125			2.96	20
Chloroethane	0.00500	0.00541	0.00515	108	103	47.0-150			4.92	20
Chloroform	0.00500	0.00495	0.00529	99.0	106	73.0-120			6.64	20
Chloromethane	0.00500	0.00483	0.00454	96.6	90.8	41.0-142			6.19	20
1,2-Dibromoethane	0.00500	0.00498	0.00545	99.6	109	80.0-122			9.01	20
1,1-Dichloroethane	0.00500	0.00510	0.00525	102	105	70.0-126			2.90	20
1,2-Dichloroethane	0.00500	0.00505	0.00551	101	110	70.0-128			8.71	20
1,1-Dichloroethene	0.00500	0.00490	0.00512	98.0	102	71.0-124			4.39	20
cis-1,2-Dichloroethene	0.00500	0.00511	0.00535	102	107	73.0-120			4.59	20
trans-1,2-Dichloroethene	0.00500	0.00501	0.00519	100	104	73.0-120			3.53	20
1,2-Dichloropropane	0.00500	0.00481	0.00547	96.2	109	77.0-125			12.8	20
cis-1,3-Dichloropropene	0.00500	0.00473	0.00524	94.6	105	80.0-123			10.2	20
trans-1,3-Dichloropropene	0.00500	0.00486	0.00483	97.2	96.6	78.0-124			0.619	20
Ethylbenzene	0.00500	0.00505	0.00540	101	108	79.0-123			6.70	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582815-1 10/16/20 23:15 • (LCSD) R3582815-2 10/16/20 23:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
2-Hexanone	0.0250	0.0244	0.0276	97.6	110	67.0-149			12.3	20
Isopropylbenzene	0.00500	0.00509	0.00535	102	107	76.0-127			4.98	20
p-Isopropyltoluene	0.00500	0.00478	0.00519	95.6	104	76.0-125			8.22	20
2-Butanone (MEK)	0.0250	0.0228	0.0279	91.2	112	44.0-160		J3	20.1	20
Methylene Chloride	0.00500	0.00460	0.00484	92.0	96.8	67.0-120			5.08	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0243	0.0269	97.2	108	68.0-142			10.2	20
Methyl tert-butyl ether	0.00500	0.00491	0.00544	98.2	109	68.0-125			10.2	20
Naphthalene	0.00500	0.00502	0.00528	100	106	54.0-135			5.05	20
n-Propylbenzene	0.00500	0.00447	0.00458	89.4	91.6	77.0-124			2.43	20
Styrene	0.00500	0.00494	0.00512	98.8	102	73.0-130			3.58	20
1,1,1,2-Tetrachloroethane	0.00500	0.00506	0.00524	101	105	75.0-125			3.50	20
1,1,2,2-Tetrachloroethane	0.00500	0.00444	0.00448	88.8	89.6	65.0-130			0.897	20
Tetrachloroethene	0.00500	0.00519	0.00535	104	107	72.0-132			3.04	20
Toluene	0.00500	0.00500	0.00517	100	103	79.0-120			3.34	20
1,1,1-Trichloroethane	0.00500	0.00490	0.00513	98.0	103	73.0-124			4.59	20
1,1,2-Trichloroethane	0.00500	0.00506	0.00555	101	111	80.0-120			9.24	20
1,2,4-Trimethylbenzene	0.00500	0.00461	0.00483	92.2	96.6	76.0-121			4.66	20
1,3,5-Trimethylbenzene	0.00500	0.00448	0.00467	89.6	93.4	76.0-122			4.15	20
Vinyl chloride	0.00500	0.00544	0.00501	109	100	67.0-131			8.23	20
Xylenes, Total	0.0150	0.0150	0.0158	100	105	79.0-123			5.19	20
o-Xylene	0.00500	0.00494	0.00532	98.8	106	80.0-122			7.41	20
m&p-Xylenes	0.0100	0.0101	0.0105	101	105	80.0-122			3.88	20
(S) Toluene-d8				*108*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*107*	*114*	*70.0-130*				

L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	1.25	U	1.39	1.34	111	107	50	10.0-160			3.66	35
Benzene	0.250	0.00478	0.261	0.214	102	83.7	50	17.0-158			19.8	27
Bromodichloromethane	0.250	U	0.258	0.223	103	89.2	50	31.0-150			14.6	27
Bromoform	0.250	U	0.272	0.238	109	95.2	50	29.0-150			13.3	29
Bromomethane	0.250	U	0.244	0.189	97.6	75.6	50	10.0-160			25.4	38
n-Butylbenzene	0.250	U	0.224	0.193	89.6	77.2	50	31.0-150			14.9	30
sec-Butylbenzene	0.250	U	0.231	0.184	92.4	73.6	50	33.0-155			22.7	29
Carbon disulfide	0.250	U	0.214	0.129	85.6	51.6	50	10.0-156		J3	49.6	28

L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.250	U	0.223	0.164	89.2	65.6	50	23.0-159		J3	30.5	28
Chlorobenzene	0.250	U	0.254	0.215	102	86.0	50	33.0-152			16.6	27
Chlorodibromomethane	0.250	U	0.268	0.250	107	100	50	37.0-149			6.95	27
Chloroethane	0.250	U	0.255	0.183	102	73.2	50	10.0-160		J3	32.9	30
Chloroform	0.250	U	0.268	0.218	107	87.2	50	29.0-154			20.6	28
Chloromethane	0.250	U	0.222	0.157	88.8	62.8	50	10.0-160		J3	34.3	29
1,2-Dibromoethane	0.250	U	0.288	0.252	115	101	50	34.0-147			13.3	27
1,1-Dichloroethane	0.250	U	0.255	0.201	102	80.4	50	25.0-158			23.7	27
1,2-Dichloroethane	0.250	U	0.284	0.248	114	99.2	50	29.0-151			13.5	27
1,1-Dichloroethene	0.250	0.0500	0.286	0.207	94.4	62.8	50	11.0-160		J3	32.0	29
cis-1,2-Dichloroethene	0.250	2.70	2.90	2.96	80.0	104	50	10.0-160			2.05	27
trans-1,2-Dichloroethene	0.250	0.0199	0.263	0.193	97.2	69.2	50	17.0-153		J3	30.7	27
1,2-Dichloropropane	0.250	U	0.266	0.223	106	89.2	50	30.0-156			17.6	27
cis-1,3-Dichloropropene	0.250	U	0.261	0.218	104	87.2	50	34.0-149			18.0	28
trans-1,3-Dichloropropene	0.250	U	0.247	0.232	98.8	92.8	50	32.0-149			6.26	28
Ethylbenzene	0.250	U	0.252	0.219	101	87.6	50	30.0-155			14.0	27
2-Hexanone	1.25	U	1.43	1.29	114	103	50	21.0-160			10.3	29
Isopropylbenzene	0.250	U	0.246	0.203	98.4	81.2	50	28.0-157			19.2	27
p-Isopropyltoluene	0.250	U	0.241	0.194	96.4	77.6	50	30.0-154			21.6	29
2-Butanone (MEK)	1.25	U	1.34	1.27	107	102	50	10.0-160			5.36	32
Methylene Chloride	0.250	U	0.235	0.201	94.0	80.4	50	23.0-144			15.6	28
4-Methyl-2-pentanone (MIBK)	1.25	U	1.41	1.27	113	102	50	29.0-160			10.4	29
Methyl tert-butyl ether	0.250	U	0.307	0.316	123	126	50	28.0-150			2.89	29
Naphthalene	0.250	U	0.275	0.257	110	103	50	12.0-156			6.77	35
n-Propylbenzene	0.250	U	0.223	0.176	89.2	70.4	50	31.0-154			23.6	28
Styrene	0.250	U	0.248	0.214	99.2	85.6	50	33.0-155			14.7	28
1,1,1,2-Tetrachloroethane	0.250	U	0.265	0.232	106	92.8	50	36.0-151			13.3	29
1,1,2,2-Tetrachloroethane	0.250	U	0.256	0.227	102	90.8	50	33.0-150			12.0	28
Tetrachloroethene	0.250	U	0.261	0.207	104	82.8	50	10.0-160			23.1	27
Toluene	0.250	U	0.289	0.292	116	117	50	26.0-154			1.03	28
1,1,1-Trichloroethane	0.250	U	0.255	0.182	102	72.8	50	23.0-160		J3	33.4	28
1,1,2-Trichloroethane	0.250	0.0141	0.286	0.277	109	105	50	35.0-147			3.20	27
1,2,4-Trimethylbenzene	0.250	U	0.243	0.221	97.2	88.4	50	26.0-154			9.48	27
1,3,5-Trimethylbenzene	0.250	U	0.226	0.184	90.4	73.6	50	28.0-153			20.5	27
Vinyl chloride	0.250	0.127	0.378	0.287	100	64.0	50	10.0-160		J3	27.4	27
Xylenes, Total	0.750	U	0.788	0.734	105	97.9	50	29.0-154			7.10	28
o-Xylene	0.250	U	0.269	0.247	108	98.8	50	45.0-144			8.53	26
m&p-Xylenes	0.500	U	0.519	0.487	104	97.4	50	43.0-146			6.36	26
(S) Toluene-d8					*105*	*109*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.1*	*101*		*77.0-126*				

Received by OCD: 6/23/2021 4:05:29 PM

L1271276-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271276-04 10/17/20 06:01 • (MS) R3582815-4 10/17/20 06:59 • (MSD) R3582815-5 10/17/20 07:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
(S) 1,2-Dichloroethane-d4					*111*	*110*		*70.0-130*				

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	0.000781	J	0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0244	97.6	19.0-160	
Benzene	0.00500	0.00503	101	70.0-123	
Bromodichloromethane	0.00500	0.00493	98.6	75.0-120	
Bromoform	0.00500	0.00486	97.2	68.0-132	
Bromomethane	0.00500	0.00555	111	10.0-160	
n-Butylbenzene	0.00500	0.00506	101	73.0-125	
sec-Butylbenzene	0.00500	0.00510	102	75.0-125	
Carbon disulfide	0.00500	0.00486	97.2	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00517	103	80.0-121	
Chlorodibromomethane	0.00500	0.00505	101	77.0-125	
Chloroethane	0.00500	0.00559	112	47.0-150	
Chloroform	0.00500	0.00498	99.6	73.0-120	
Chloromethane	0.00500	0.00502	100	41.0-142	
1,2-Dibromoethane	0.00500	0.00511	102	80.0-122	
1,1-Dichloroethane	0.00500	0.00507	101	70.0-126	
1,2-Dichloroethane	0.00500	0.00500	100	70.0-128	
1,1-Dichloroethene	0.00500	0.00486	97.2	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00512	102	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00509	102	73.0-120	
1,2-Dichloropropane	0.00500	0.00504	101	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00485	97.0	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00481	96.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00531	106	79.0-123	
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00517	103	76.0-127	
p-Isopropyltoluene	0.00500	0.00515	103	76.0-125	
2-Butanone (MEK)	0.0250	0.0238	95.2	44.0-160	
Methylene Chloride	0.00500	0.00469	93.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	100	68.0-142	
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Naphthalene	0.00500	0.00505	101	54.0-135	
n-Propylbenzene	0.00500	0.00475	95.0	77.0-124	
Styrene	0.00500	0.00508	102	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00530	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00425	85.0	65.0-130	
Tetrachloroethene	0.00500	0.00548	110	72.0-132	
Toluene	0.00500	0.00513	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00508	102	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00530	106	80.0-120	
Trichloroethene	0.00500	0.00727	145	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00472	94.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00478	95.6	76.0-122	
Vinyl chloride	0.00500	0.00554	111	67.0-131	
Xylenes, Total	0.0150	0.0154	103	79.0-123	
o-Xylene	0.00500	0.00508	102	80.0-122	
m&p-Xylenes	0.0100	0.0103	103	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583292-2 10/19/20 14:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*99.4*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583292-3 10/19/20 14:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.00500	0.00398	79.6	78.0-124	
(S) Toluene-d8			*98.1*	*80.0-120*	
(S) 4-Bromofluorobenzene			*102*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583344-3 10/19/20 22:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583344-1 10/19/20 21:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Trichloroethene	0.00500	0.00507	101	78.0-124	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*104*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3583488-3 10/20/20 10:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3583488-3 10/20/20 10:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3583488-1 10/20/20 09:41 • (LCSD) R3583488-2 10/20/20 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0272	0.0264	109	106	19.0-160			2.99	27
Benzene	0.00500	0.00468	0.00489	93.6	97.8	70.0-123			4.39	20
Bromodichloromethane	0.00500	0.00476	0.00467	95.2	93.4	75.0-120			1.91	20
Bromoform	0.00500	0.00477	0.00495	95.4	99.0	68.0-132			3.70	20
Bromomethane	0.00500	0.00460	0.00478	92.0	95.6	10.0-160			3.84	25
n-Butylbenzene	0.00500	0.00441	0.00474	88.2	94.8	73.0-125			7.21	20
sec-Butylbenzene	0.00500	0.00467	0.00491	93.4	98.2	75.0-125			5.01	20
Carbon disulfide	0.00500	0.00373	0.00413	74.6	82.6	61.0-128			10.2	20
Carbon tetrachloride	0.00500	0.00438	0.00456	87.6	91.2	68.0-126			4.03	20
Chlorobenzene	0.00500	0.00503	0.00504	101	101	80.0-121			0.199	20
Chlorodibromomethane	0.00500	0.00483	0.00499	96.6	99.8	77.0-125			3.26	20
Chloroethane	0.00500	0.00450	0.00483	90.0	96.6	47.0-150			7.07	20
Chloroform	0.00500	0.00470	0.00499	94.0	99.8	73.0-120			5.99	20
Chloromethane	0.00500	0.00390	0.00422	78.0	84.4	41.0-142			7.88	20
1,2-Dibromoethane	0.00500	0.00484	0.00519	96.8	104	80.0-122			6.98	20
1,1-Dichloroethane	0.00500	0.00470	0.00490	94.0	98.0	70.0-126			4.17	20
1,2-Dichloroethane	0.00500	0.00511	0.00522	102	104	70.0-128			2.13	20
1,1-Dichloroethene	0.00500	0.00425	0.00439	85.0	87.8	71.0-124			3.24	20
cis-1,2-Dichloroethene	0.00500	0.00448	0.00469	89.6	93.8	73.0-120			4.58	20
trans-1,2-Dichloroethene	0.00500	0.00441	0.00467	88.2	93.4	73.0-120			5.73	20
1,2-Dichloropropane	0.00500	0.00494	0.00500	98.8	100	77.0-125			1.21	20
cis-1,3-Dichloropropene	0.00500	0.00464	0.00473	92.8	94.6	80.0-123			1.92	20
trans-1,3-Dichloropropene	0.00500	0.00471	0.00485	94.2	97.0	78.0-124			2.93	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3583488-1 10/20/20 09:41 • (LCSD) R3583488-2 10/20/20 10:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	0.00500	0.00487	0.00513	97.4	103	79.0-123			5.20	20
2-Hexanone	0.0250	0.0250	0.0287	100	115	67.0-149			13.8	20
Isopropylbenzene	0.00500	0.00479	0.00500	95.8	100	76.0-127			4.29	20
p-Isopropyltoluene	0.00500	0.00476	0.00479	95.2	95.8	76.0-125			0.628	20
2-Butanone (MEK)	0.0250	0.0247	0.0287	98.8	115	44.0-160			15.0	20
Methylene Chloride	0.00500	0.00412	0.00413	82.4	82.6	67.0-120			0.242	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0252	0.0283	101	113	68.0-142			11.6	20
Methyl tert-butyl ether	0.00500	0.00475	0.00499	95.0	99.8	68.0-125			4.93	20
Naphthalene	0.00500	0.00434	0.00468	86.8	93.6	54.0-135			7.54	20
n-Propylbenzene	0.00500	0.00424	0.00441	84.8	88.2	77.0-124			3.93	20
Styrene	0.00500	0.00466	0.00488	93.2	97.6	73.0-130			4.61	20
1,1,1,2-Tetrachloroethane	0.00500	0.00484	0.00504	96.8	101	75.0-125			4.05	20
1,1,2,2-Tetrachloroethane	0.00500	0.00446	0.00475	89.2	95.0	65.0-130			6.30	20
Tetrachloroethene	0.00500	0.00473	0.00510	94.6	102	72.0-132			7.53	20
Toluene	0.00500	0.00476	0.00488	95.2	97.6	79.0-120			2.49	20
1,1,1-Trichloroethane	0.00500	0.00449	0.00476	89.8	95.2	73.0-124			5.84	20
1,1,2-Trichloroethane	0.00500	0.00490	0.00525	98.0	105	80.0-120			6.90	20
Trichloroethene	0.00500	0.00460	0.00497	92.0	99.4	78.0-124			7.73	20
1,2,4-Trimethylbenzene	0.00500	0.00434	0.00450	86.8	90.0	76.0-121			3.62	20
1,3,5-Trimethylbenzene	0.00500	0.00428	0.00440	85.6	88.0	76.0-122			2.76	20
Vinyl chloride	0.00500	0.00458	0.00471	91.6	94.2	67.0-131			2.80	20
Xylenes, Total	0.0150	0.0143	0.0148	95.3	98.7	79.0-123			3.44	20
o-Xylene	0.00500	0.00477	0.00480	95.4	96.0	80.0-122			0.627	20
m&p-Xylenes	0.0100	0.00957	0.00996	95.7	99.6	80.0-122			3.99	20
(S) Toluene-d8				*109*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*113*	*115*	*70.0-130*				

Method Blank (MB)

(MB) R3580820-1 10/13/20 06:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*81.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3580820-2 10/13/20 06:46 • (LCSD) R3580820-3 10/13/20 07:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.45	1.46	96.7	97.3	50.0-150			0.687	20
(S) o-Terphenyl				*91.5*	*92.0*	*31.0-160*				

Method Blank (MB)

(MB) R3581663-1 10/14/20 12:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*98.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581663-2 10/14/20 12:50 • (LCSD) R3581663-3 10/14/20 13:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.63	1.63	109	109	50.0-150			0.000	20
(S) o-Terphenyl				*107*	*108*	*31.0-160*				

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3581676-1 10/14/20 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*101*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581676-2 10/15/20 00:19 • (LCSD) R3581676-3 10/15/20 00:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.58	1.61	105	107	50.0-150			1.88	20
(S) o-Terphenyl				*106*	*104*	*31.0-160*				

Released to Imaging: 11/21/2023 10:16:55 AM

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: NCL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-NCL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # NCL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271284
1192

Tabl

Acctnum: TRCATX
Template: T140423
Prelogin: P799954
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	EDB - 8011	Remarks	Sample # (lab only)
MW-45	Grab	GW		10/6/20	1610	8	x	x			x	x	x	x	x			-01
~~NCL-34A~~ LNAPL	Grab	GW				7	x	x		x	x	x	x					-02
NCL-33	Grab	GW		10/7/20	1030	7	x	x		x	x	x	x					-03
NCL-44	Grab	GW		10/7/20	950	7	x	x		x	x	x	x					-04
NCL-32	Grab	GW		10/7/20	905	7	x	x		x	x	x	x					-05
MW-108	Grab	GW		10/6/20	1410	10	x	x		x	x	x	x			x	54	-06
NCL-31	Grab	GW		10/6/20	1325	7	x	x		x	x	x	x					-07
MW-55	Grab	GW		10/7/20	825	10	x	x	x		x	x	x	x	x			-08
MW-54A	Grab	GW		10/6/20	930	7	x	x		x	x	x	x					-09
NCL-49	Grab	GW		10/6/20	1010	7	x	x		x	x	x	x					-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=9 °C Bottles Received: 91
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tirres	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: NCL Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-NCL

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # NCL (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
DUP-NCL-01	Grab	GW		10/6/20	1100	7	x	x		x	x	x	x					-11
EB-NCL-01	Grab	GW		10/7/20	915	7	x	x		x	x	x	x					-12
TRIP BLANK-NCL-01	Grab	GW		10/6/20	—	1	x											-13
MW-53R	Grab	GW		10/6/20	850	7	X	X		X	X	X	X					-14

Chain of Custody Page 2 of 2

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L211284

Table #

Acctnum: TRCATX

Template: T140423

Prelogin: P799954

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1, 2.9 °C Bottles Received: 9 1	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuce	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

Page 1692 of 2498

Hailey Melson

Pace Analytical®
National Center for Testing & Innovation

Login #: L1271284	Client: TRCATX	Date: 10/08/2020	Evaluated by: Olivia S.

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

Did not receive SVOC vials for MW-108

Client informed by:		Call		Email		Voice Mail		Date: 10/9/20	Time: 18:07
TSR Initials: CM	Client Contact:								

Login Instructions:

SV8011 not needed on MW-108.

Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

January 28, 2021

Revised Report

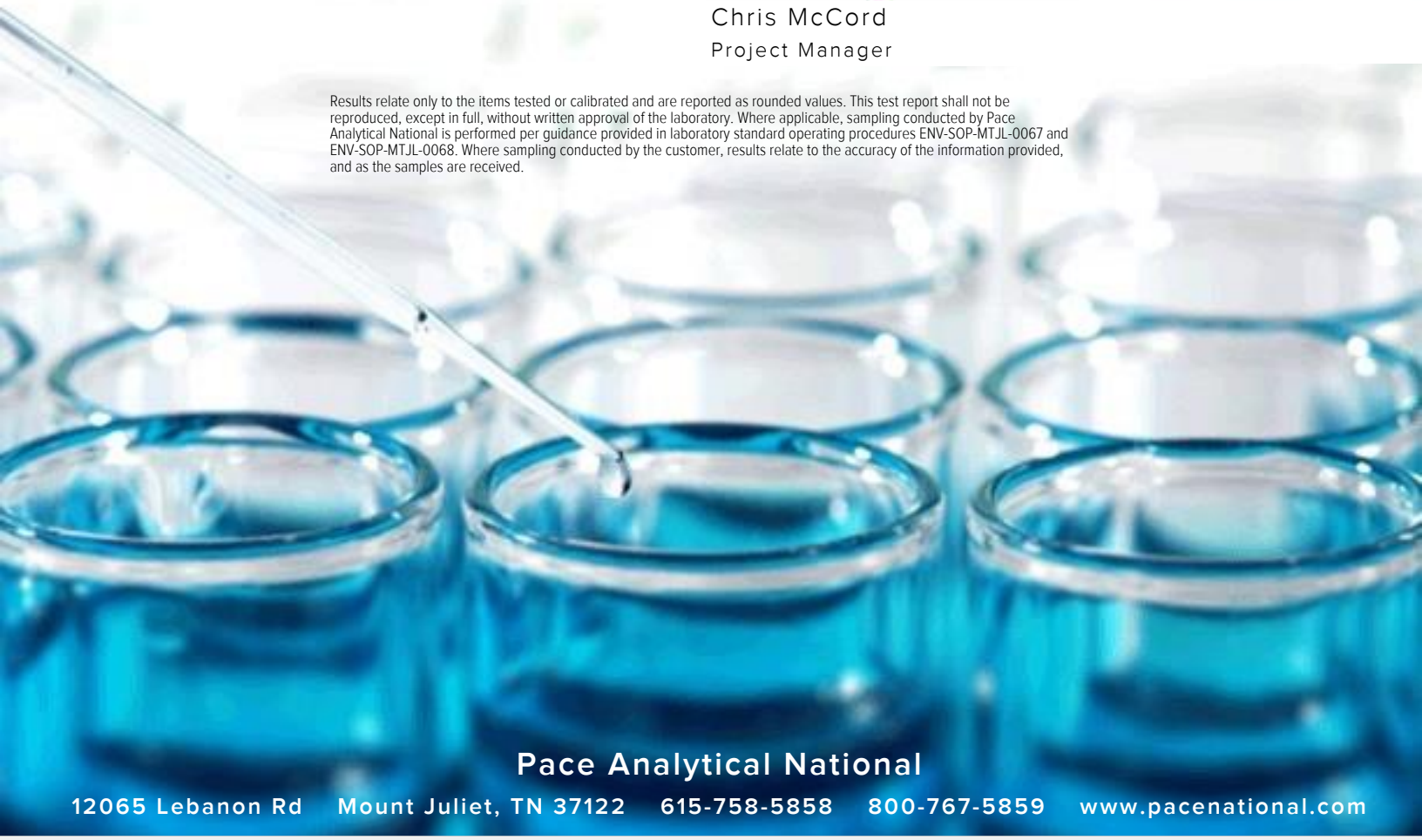
TRC Solutions - Austin, TX

Sample Delivery Group:	L1271297
Samples Received:	10/08/2020
Project Number:	330538.0000.0000
Description:	TMD Fall 2020
Site:	TMD - NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-21 L1271297-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:45
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	10	10/15/20 03:03	10/15/20 03:03	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 06:24	10/13/20 06:24	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/13/20 06:45	10/13/20 06:45	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	1	10/14/20 10:53	10/14/20 10:53	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	5	10/17/20 16:30	10/17/20 16:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	5	10/20/20 05:07	10/20/20 05:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 03:44	DMG	Mt. Juliet, TN

MW-46R L1271297-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:40
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558993	1	10/15/20 03:04	10/15/20 03:04	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	1	10/13/20 07:06	10/13/20 07:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557660	100	10/13/20 07:27	10/13/20 07:27	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 14:52	10/17/20 14:52	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 04:07	10/20/20 04:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 04:10	DMG	Mt. Juliet, TN

TRIP BLANK-TMD-01 L1271297-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 00:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 11:58	10/17/20 11:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 00:24	10/20/20 00:24	ACG	Mt. Juliet, TN

NP-1 L1271297-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:15
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 15:12	10/17/20 15:12	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	5	10/20/20 05:28	10/20/20 05:28	ACG	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 10/22/20 17:41

Project Narrative

01/27/21: Revised report to update COC from NCF to OK. A missing sample was received in a delayed cooler the next day in good order. An incorrect qualifier was also removed from the Method Blank in WG1556439.

Sample Delivery Group (SDG) Narrative

Analyzed from headspace vial.

Lab Sample ID	Project Sample ID	Method
L1271297-03	TRIP BLANK-TMD-01	8260B

Received by OCD: 6/23/2021 4:05:29 PM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	5600		14.1	50.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	17.5		0.500	1.00	10	10/15/2020 03:03	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	616		37.9	100	100	10/13/2020 06:45	WG1557660
Fluoride	1.41		0.0640	0.150	1	10/13/2020 06:24	WG1557660
Sulfate	2700		59.4	500	100	10/13/2020 06:45	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00571		0.000735	0.00200	1	10/15/2020 20:07	WG1556439
Barium	U		0.00778	0.0200	1	10/15/2020 20:07	WG1556439
Calcium	552		0.480	1.00	1	10/15/2020 20:07	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:07	WG1556439
Iron	U		0.0489	0.100	1	10/15/2020 20:07	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:07	WG1556439
Manganese	0.193		0.00132	0.00500	1	10/15/2020 20:07	WG1556439
Potassium	2.15		0.534	2.00	1	10/15/2020 20:07	WG1556439
Selenium	0.0429		0.000657	0.00200	1	10/15/2020 20:07	WG1556439
Sodium	429		0.630	2.00	1	10/15/2020 20:07	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	0.492		0.0314	0.100	1	10/14/2020 10:53	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*		*10/14/2020 10:53*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0565	0.250	5	10/17/2020 16:30	WG1560666
Benzene	U		0.000471	0.00500	5	10/17/2020 16:30	WG1560666
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 16:30	WG1560666
Bromoform	U		0.000645	0.00500	5	10/17/2020 16:30	WG1560666
Bromomethane	U		0.00303	0.0250	5	10/17/2020 16:30	WG1560666
n-Butylbenzene	U		0.000785	0.00500	5	10/17/2020 16:30	WG1560666
sec-Butylbenzene	U		0.000625	0.00500	5	10/17/2020 16:30	WG1560666
Carbon disulfide	U		0.000481	0.00500	5	10/17/2020 16:30	WG1560666
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 16:30	WG1560666
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 16:30	WG1560666
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 16:30	WG1560666
Chloroethane	U		0.000960	0.0250	5	10/17/2020 16:30	WG1560666
Chloroform	U		0.000555	0.0250	5	10/17/2020 16:30	WG1560666
Chloromethane	U		0.00480	0.0125	5	10/17/2020 16:30	WG1560666
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 16:30	WG1560666
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 16:30	WG1560666

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

MW-21
Collected date/time: 10/06/20 15:45
L1271297

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 16:30	WG1560666
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 16:30	WG1560666
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 16:30	WG1560666
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 16:30	WG1560666
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 16:30	WG1560666
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 16:30	WG1560666
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	10/17/2020 16:30	WG1560666
Ethylbenzene	U		0.000685	0.00500	5	10/17/2020 16:30	WG1560666
Isopropylbenzene	U		0.000525	0.00500	5	10/17/2020 16:30	WG1560666
p-Isopropyltoluene	U		0.000600	0.00500	5	10/17/2020 16:30	WG1560666
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 16:30	WG1560666
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 16:30	WG1560666
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 16:30	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 16:30	WG1560666
Methyl tert-butyl ether	0.243		0.000505	0.00500	5	10/17/2020 16:30	WG1560666
Naphthalene	U		0.00500	0.0250	5	10/17/2020 16:30	WG1560666
n-Propylbenzene	U		0.000497	0.00500	5	10/17/2020 16:30	WG1560666
Styrene	U		0.000590	0.00500	5	10/17/2020 16:30	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 16:30	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 16:30	WG1560666
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 16:30	WG1560666
Toluene	U		0.00139	0.00500	5	10/17/2020 16:30	WG1560666
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 16:30	WG1560666
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 16:30	WG1560666
Trichloroethene	U		0.000950	0.00500	5	10/20/2020 05:07	WG1561731
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	10/17/2020 16:30	WG1560666
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	10/17/2020 16:30	WG1560666
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 16:30	WG1560666
o-Xylene	U		0.000870	0.00500	5	10/17/2020 16:30	WG1560666
m&p-Xylene	U		0.00215	0.0100	5	10/17/2020 16:30	WG1560666
Xylenes, Total	U		0.000870	0.0150	5	10/17/2020 16:30	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 16:30*	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/20/2020 05:07*	WG1561731
(S) 4-Bromofluorobenzene	*98.6*			*77.0-126*		*10/17/2020 16:30*	WG1560666
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/20/2020 05:07*	WG1561731
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*10/17/2020 16:30*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 05:07*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.163		0.0247	0.100	1	10/15/2020 03:44	WG1557495
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/15/2020 03:44*	WG1557495

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3860		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 03:04	WG1558993

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	175	B	37.9	100	100	10/13/2020 07:27	WG1557660
Fluoride	1.16		0.0640	0.150	1	10/13/2020 07:06	WG1557660
Sulfate	2070		59.4	500	100	10/13/2020 07:27	WG1557660

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00290		0.000735	0.00200	1	10/15/2020 20:10	WG1556439
Barium	0.0110	J	0.00778	0.0200	1	10/15/2020 20:10	WG1556439
Calcium	553		0.480	1.00	1	10/15/2020 20:10	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:10	WG1556439
Iron	0.0522	J	0.0489	0.100	1	10/15/2020 20:10	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:10	WG1556439
Manganese	0.0720		0.00132	0.00500	1	10/15/2020 20:10	WG1556439
Potassium	0.725	B J	0.534	2.00	1	10/15/2020 20:10	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 20:10	WG1556439
Sodium	166		0.630	2.00	1	10/15/2020 20:10	WG1556439

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:52	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:52	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:52	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:52	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:52	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:52	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:52	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:52	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:52	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:52	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:52	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:52	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:52	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:52	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:52	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:52	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:52	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:52	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:52	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:52	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:52	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:52	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:52	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:52	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:52	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:52	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:52	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:52	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 14:52	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:52	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:52	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 14:52	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:52	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:52	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:52	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 14:52	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:52	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 04:07	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:52	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:52	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:52	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:52	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:52	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:52	WG1560666
(S) Toluene-d8	*112*			*80.0-120*		*10/17/2020 14:52*	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2020 04:07*	WG1561731
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 14:52*	WG1560666
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/20/2020 04:07*	WG1561731
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/17/2020 14:52*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 04:07*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.111		0.0247	0.100	1	10/15/2020 04:10	WG1557495
(S) o-Terphenyl	*91.6*			*31.0-160*		*10/15/2020 04:10*	WG1557495

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	1	10/17/2020 11:58	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:58	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:58	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:58	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:58	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:58	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 11:58	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:58	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:58	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:58	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:58	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:58	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:58	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:58	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:58	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:58	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:58	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:58	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:58	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:58	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:58	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:58	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:58	WG1560666
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:58	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 11:58	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:58	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:58	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:58	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:58	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:58	WG1560666
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 11:58	WG1560666
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:58	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 11:58	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 11:58	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:58	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:58	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:58	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 11:58	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:58	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:58	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 00:24	WG1561731
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 11:58	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:58	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:58	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 11:58	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 11:58	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 11:58	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 11:58*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 00:24*	WG1561731
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*10/17/2020 11:58*	WG1560666
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/20/2020 00:24*	WG1561731
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/17/2020 11:58*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 00:24*	WG1561731

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 15:12	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 15:12	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 15:12	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 15:12	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 15:12	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 15:12	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 15:12	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 15:12	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 15:12	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 15:12	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 15:12	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 15:12	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 15:12	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 15:12	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 15:12	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 15:12	WG1560666
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 15:12	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 15:12	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 15:12	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 15:12	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 15:12	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 15:12	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 15:12	WG1560666
Ethylbenzene	0.000245	J	0.000137	0.00100	1	10/17/2020 15:12	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 15:12	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 15:12	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 15:12	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 15:12	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 15:12	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 15:12	WG1560666
Methyl tert-butyl ether	0.217		0.000505	0.00500	5	10/20/2020 05:28	WG1561731
Naphthalene	U		0.00100	0.00500	1	10/17/2020 15:12	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 15:12	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 15:12	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 15:12	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 15:12	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 15:12	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 15:12	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 15:12	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 15:12	WG1560666
Trichloroethene	U		0.000950	0.00500	5	10/20/2020 05:28	WG1561731
1,2,4-Trimethylbenzene	0.000430	J	0.000322	0.00100	1	10/17/2020 15:12	WG1560666
1,3,5-Trimethylbenzene	0.000104	J	0.000104	0.00100	1	10/17/2020 15:12	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 15:12	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 15:12	WG1560666
m&p-Xylene	0.000456	J	0.000430	0.00200	1	10/17/2020 15:12	WG1560666
Xylenes, Total	0.000456	J	0.000174	0.00300	1	10/17/2020 15:12	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 15:12*	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2020 05:28*	WG1561731
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 15:12*	WG1560666
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2020 05:28*	WG1561731
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*10/17/2020 15:12*	WG1560666
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/20/2020 05:28*	WG1561731

Method Blank (MB)

(MB) R3581958-1 10/13/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1270630-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270630-02 10/13/20 21:36 • (DUP) R3581958-3 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	159	155	1	2.55		5

L1271301-53 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-53 10/13/20 21:36 • (DUP) R3581958-4 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4440	4390	1	1.27		5

Laboratory Control Sample (LCS)

(LCS) R3581958-2 10/13/20 21:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	77.4-123	

Method Blank (MB)

(MB) R3581654-1 10/15/20 02:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1270979-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1270979-01 10/15/20 02:57 • (DUP) R3581654-2 10/15/20 02:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.247	0.206	1	18.1		20

L1272738-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1272738-05 10/15/20 04:26 • (DUP) R3581654-5 10/15/20 04:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3581654-4 10/15/20 04:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.35	94.0	90.0-110	

L1271283-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271283-02 10/15/20 02:52 • (MS) R3581654-3 10/15/20 02:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.19	87.6	1	90.0-110	J6

L1272738-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1272738-06 10/15/20 04:29 • (MS) R3581654-6 10/15/20 04:30 • (MSD) R3581654-7 10/15/20 04:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	1.61	1.69	64.4	67.6	1	90.0-110	J6	J6	4.85	20

Method Blank (MB)

(MB) R3581098-1 10/12/20 17:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.405	J	0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271284-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-05 10/12/20 21:08 • (DUP) R3581098-3 10/12/20 21:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.8	15.8	1	0.0798		15
Fluoride	1.48	1.49	1	0.768		15

L1271284-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-05 10/12/20 22:33 • (DUP) R3581098-6 10/12/20 22:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	221	223	10	0.703		15

L1271284-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-11 10/13/20 03:46 • (DUP) R3581098-7 10/13/20 04:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	0.403	0.407	1	0.913	J	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3581098-2 10/12/20 17:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.6	80.0-120	
Fluoride	8.00	8.08	101	80.0-120	
Sulfate	40.0	39.4	98.6	80.0-120	

L1271284-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271284-05 10/12/20 21:08 • (MS) R3581098-4 10/12/20 21:51 • (MSD) R3581098-5 10/12/20 22:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	15.8	68.1	67.5	105	103	1	80.0-120			0.794	15
Fluoride	5.00	1.48	6.33	6.43	97.0	98.9	1	80.0-120			1.52	15

L1271284-11 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271284-11 10/13/20 03:46 • (MS) R3581098-8 10/13/20 04:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	0.403	50.0	99.3	1	80.0-120	
Fluoride	5.00	U	4.99	99.7	1	80.0-120	
Sulfate	50.0	U	49.7	99.4	1	80.0-120	

Method Blank (MB)

(MB) R3581976-1 10/15/20 15:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3581976-2 10/15/20 15:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0481	96.1	80.0-120	
Barium	0.0500	0.0490	97.9	80.0-120	
Calcium	5.00	4.92	98.5	80.0-120	
Chromium	0.0500	0.0492	98.5	80.0-120	
Iron	5.00	4.78	95.7	80.0-120	
Lead	0.0500	0.0462	92.4	80.0-120	
Manganese	0.0500	0.0481	96.3	80.0-120	
Potassium	5.00	4.98	99.6	80.0-120	
Selenium	0.0500	0.0490	98.0	80.0-120	
Sodium	5.00	5.08	102	80.0-120	

L1271298-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-08 10/15/20 15:24 • (MS) R3581976-4 10/15/20 15:32 • (MSD) R3581976-5 10/15/20 15:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00798	0.0571	0.0546	98.3	93.2	1	75.0-125			4.57	20
Barium	0.0500	0.0148	0.0677	0.0638	106	98.0	1	75.0-125			5.95	20
Calcium	5.00	292	297	297	96.6	92.8	1	75.0-125			0.0646	20
Chromium	0.0500	U	0.0505	0.0488	98.4	95.0	1	75.0-125			3.42	20
Potassium	5.00	3.46	8.33	8.34	97.3	97.6	1	75.0-125			0.140	20
Iron	5.00	0.700	5.55	5.33	97.1	92.6	1	75.0-125			4.16	20
Lead	0.0500	U	0.0459	0.0461	91.8	92.1	1	75.0-125			0.331	20

Metals (ICPMS) by Method 6020

L1271298-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-08 10/15/20 15:24 • (MS) R3581976-4 10/15/20 15:32 • (MSD) R3581976-5 10/15/20 15:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Manganese	0.0500	0.491	0.522	0.507	62.9	32.6	1	75.0-125	V	V	2.94	20
Selenium	0.0500	0.000658	0.0532	0.0543	105	107	1	75.0-125			1.92	20
Sodium	5.00	1030	1030	1030	117	0.000	1	75.0-125	E	E V	0.736	20

Method Blank (MB)

(MB) R3582008-2 10/14/20 07:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582008-1 10/14/20 06:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.83	87.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0244	97.6	19.0-160	
Benzene	0.00500	0.00503	101	70.0-123	
Bromodichloromethane	0.00500	0.00493	98.6	75.0-120	
Bromoform	0.00500	0.00486	97.2	68.0-132	
Bromomethane	0.00500	0.00555	111	10.0-160	
n-Butylbenzene	0.00500	0.00506	101	73.0-125	
sec-Butylbenzene	0.00500	0.00510	102	75.0-125	
Carbon disulfide	0.00500	0.00486	97.2	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00517	103	80.0-121	
Chlorodibromomethane	0.00500	0.00505	101	77.0-125	
Chloroethane	0.00500	0.00559	112	47.0-150	
Chloroform	0.00500	0.00498	99.6	73.0-120	
Chloromethane	0.00500	0.00502	100	41.0-142	
1,2-Dibromoethane	0.00500	0.00511	102	80.0-122	
1,1-Dichloroethane	0.00500	0.00507	101	70.0-126	
1,2-Dichloroethane	0.00500	0.00500	100	70.0-128	
1,1-Dichloroethene	0.00500	0.00486	97.2	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00512	102	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00509	102	73.0-120	
1,2-Dichloropropane	0.00500	0.00504	101	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00485	97.0	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00481	96.2	78.0-124	
Ethylbenzene	0.00500	0.00531	106	79.0-123	

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00517	103	76.0-127	
p-Isopropyltoluene	0.00500	0.00515	103	76.0-125	
2-Butanone (MEK)	0.0250	0.0238	95.2	44.0-160	
Methylene Chloride	0.00500	0.00469	93.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	100	68.0-142	
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Naphthalene	0.00500	0.00505	101	54.0-135	
n-Propylbenzene	0.00500	0.00475	95.0	77.0-124	
Styrene	0.00500	0.00508	102	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00530	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00425	85.0	65.0-130	
Tetrachloroethene	0.00500	0.00548	110	72.0-132	
Toluene	0.00500	0.00513	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00508	102	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00530	106	80.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00472	94.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00478	95.6	76.0-122	
Vinyl chloride	0.00500	0.00554	111	67.0-131	
Xylenes, Total	0.0150	0.0154	103	79.0-123	
o-Xylene	0.00500	0.00508	102	80.0-122	
m&p-Xylenes	0.0100	0.0103	103	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

WG1561731

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Volatile Organic Compounds (GC/MS) by Method 8260B

L1271297-01,02,03,04

Method Blank (MB)

(MB) R3583344-3 10/19/20 22:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583344-1 10/19/20 21:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Trichloroethene	0.00500	0.00507	101	78.0-124	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*104*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

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Method Blank (MB)

(MB) R3581663-1 10/14/20 12:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*98.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581663-2 10/14/20 12:50 • (LCSD) R3581663-3 10/14/20 13:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.63	1.63	109	109	50.0-150			0.000	20
(S) o-Terphenyl				*107*	*108*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

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Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

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Received by OCD: 6/23/2021 4:05:29 PM

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Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer
Email To: jspeer@trccompanies.com

Project Description: TMD Fall 2020
City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000
Lab Project # TRCATX-TMD

Collected by (print): Scott Ude/HMI Team
Site/Facility ID # TMD (Navajo - Artesia)
P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271297
H133
Acctnum: TRCATX
Template: T115542
Prelogin: P799956
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	Remarks	Sample # (lab only)
NP-1	Grab	GW		10/6/20	1415	2	x										
MW-21	Grab	GW		10/6/20	1545	9	x	x	x	x	x	x	x				-01
MW-46R	Grab	GW		10/7/20	940	7	x	x		x	x	x	x				-02
TRIP BLANK-TMD-01	Grab	GW		10/6/20	—	1	x										

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓ Y __ N
COC Signed/Accurate: ✓ Y __ N
Bottles arrive intact: ✓ Y __ N
Correct bottles used: ✓ Y __ N
Sufficient volume sent: ✓ Y __ N
If Applicable
VOA Zero Headspace: __ Y __ N
Preservation Correct/Checked: ✓ Y __ N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCl / MeoH TBR)	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1 1.2 °C Bottles Received: 16	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuen	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

CM 1/27/21

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 02, 2021

Revised Report

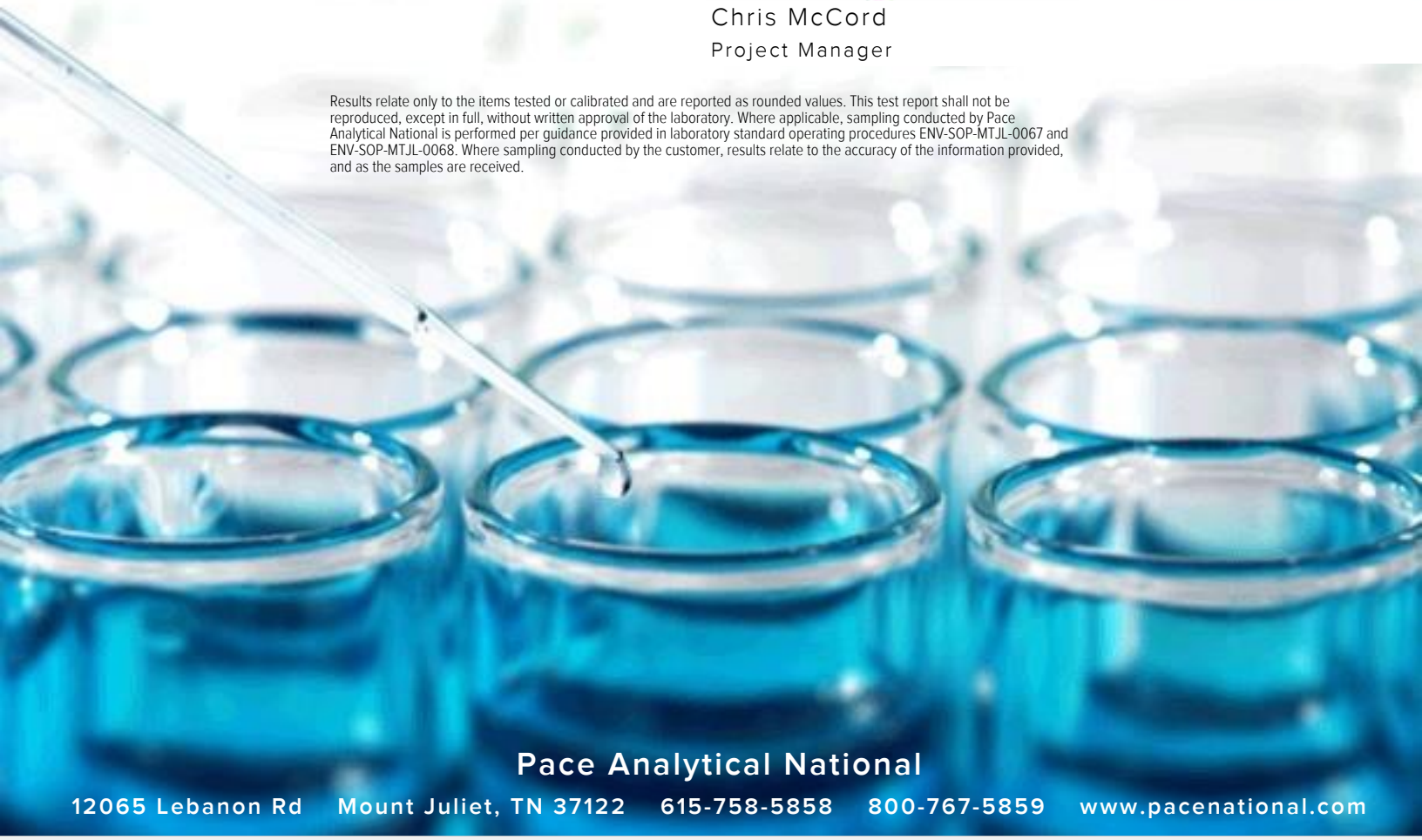
TRC Solutions - Austin, TX

Sample Delivery Group:	L1271298
Samples Received:	10/08/2020
Project Number:	330538.0000.0000
Description:	EP Fall 2020
Site:	EP NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-86 L1271298-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 16:35
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:42	10/18/20 01:42	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559473	1	10/15/20 11:00	10/15/20 18:18	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 10:41	10/13/20 10:41	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 11:02	10/13/20 11:02	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556620	1	10/09/20 09:03	10/11/20 11:25	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 05:10	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 23:13	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560065	200	10/16/20 10:14	10/16/20 10:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	20	10/17/20 16:49	10/17/20 16:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	20	10/20/20 07:09	10/20/20 07:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	20	10/13/20 07:18	10/15/20 05:52	DMG	Mt. Juliet, TN

MW-120 L1271298-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:44	10/18/20 01:44	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 11:23	10/13/20 11:23	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 11:45	10/13/20 11:45	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:30	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	5	10/10/20 21:42	10/15/20 21:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560065	1	10/16/20 08:20	10/16/20 08:20	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	5	10/17/20 17:09	10/17/20 17:09	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	5	10/20/20 05:48	10/20/20 05:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557495	1	10/13/20 07:18	10/15/20 04:35	DMG	Mt. Juliet, TN

MW-121 L1271298-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:40
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:45	10/18/20 01:45	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 12:06	10/13/20 12:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 16:26	10/13/20 16:26	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:33	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	1	10/14/20 11:44	10/14/20 11:44	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 06:37	10/16/20 06:37	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 20:19	10/16/20 20:19	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/13/20 22:20	AEG	Mt. Juliet, TN

MW-84 L1271298-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:50
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:47	10/18/20 01:47	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	10	10/13/20 17:02	10/13/20 17:02	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 17:20	10/13/20 17:20	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 23:17	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	10	10/10/20 21:42	10/15/20 20:37	LD	Mt. Juliet, TN

MW-84 L1271298-04 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 15:50	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560065	100	10/16/20 09:52	10/16/20 09:52	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	10	10/17/20 17:28	10/17/20 17:28	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	10	10/20/20 06:49	10/20/20 06:49	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	20	10/13/20 08:36	10/14/20 06:25	AEG	Mt. Juliet, TN

MW-122 L1271298-05 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 11:15	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:48	10/18/20 01:48	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 17:38	10/13/20 17:38	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 17:56	10/13/20 17:56	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:41	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	50	10/14/20 15:03	10/14/20 15:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 06:56	10/16/20 06:56	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 20:39	10/16/20 20:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/13/20 22:40	AEG	Mt. Juliet, TN

MW-79 L1271298-06 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 10:30	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:49	10/18/20 01:49	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	10	10/13/20 18:14	10/13/20 18:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 18:32	10/13/20 18:32	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:45	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	5	10/10/20 21:42	10/15/20 21:04	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1558684	1	10/14/20 12:09	10/14/20 12:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 07:15	10/16/20 07:15	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 21:00	10/16/20 21:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/13/20 23:01	AEG	Mt. Juliet, TN

MW-74 L1271298-07 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 14:35	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	10	10/18/20 01:50	10/18/20 01:50	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 18:50	10/13/20 18:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 19:08	10/13/20 19:08	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 20:48	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	5	10/10/20 21:42	10/15/20 21:08	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560065	1	10/16/20 08:43	10/16/20 08:43	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 07:35	10/16/20 07:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 21:20	10/16/20 21:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	5	10/13/20 08:36	10/14/20 05:25	AEG	Mt. Juliet, TN

MW-2A L1271298-08 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 11:55 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:56	10/18/20 01:56	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 20:19	10/13/20 20:19	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	5	10/13/20 20:01	10/13/20 20:01	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	1	10/10/20 21:42	10/15/20 15:24	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556439	5	10/10/20 21:42	10/15/20 21:58	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559027	1	10/15/20 06:51	10/15/20 06:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 08:21	10/16/20 08:21	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 21:40	10/16/20 21:40	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 11:42	AEG	Mt. Juliet, TN

OCD-6 L1271298-09 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:50 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:58	10/18/20 01:58	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 20:37	10/13/20 20:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 20:55	10/13/20 20:55	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 16:17	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 18:56	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559436	1	10/16/20 10:36	10/16/20 10:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1559339	1	10/16/20 08:39	10/16/20 08:39	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560572	1	10/16/20 22:00	10/16/20 22:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 00:01	AEG	Mt. Juliet, TN

OCD-7AR L1271298-10 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 13:30 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 01:59	10/18/20 01:59	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/13/20 21:13	10/13/20 21:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 21:31	10/13/20 21:31	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 16:30	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 18:59	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559436	1	10/16/20 10:59	10/16/20 10:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560666	1	10/17/20 15:31	10/17/20 15:31	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561731	1	10/20/20 04:27	10/20/20 04:27	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 00:21	AEG	Mt. Juliet, TN

MW-76 L1271298-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 17:20 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:00	10/18/20 02:00	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 22:07	10/13/20 22:07	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	5	10/13/20 21:49	10/13/20 21:49	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 16:33	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559436	1	10/16/20 11:21	10/16/20 11:21	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560682	1	10/17/20 05:29	10/17/20 05:29	BMB	Mt. Juliet, TN

MW-76 L1271298-11 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 17:20 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561134	1	10/18/20 10:25	10/18/20 10:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	5	10/13/20 08:36	10/14/20 05:45	AEG	Mt. Juliet, TN

MW-75 L1271298-12 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 16:25 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:01	10/18/20 02:01	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	10	10/13/20 22:25	10/13/20 22:25	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/13/20 22:43	10/13/20 22:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 16:36	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:02	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1561736	1	10/19/20 17:10	10/19/20 17:10	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	25	10/17/20 16:13	10/17/20 16:13	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	10	10/13/20 08:36	10/14/20 06:05	AEG	Mt. Juliet, TN

MW-83 L1271298-13 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/07/20 08:45 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:04	10/18/20 02:04	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 01:19	10/14/20 01:19	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	5	10/14/20 01:01	10/14/20 01:01	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 16:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1561736	1	10/19/20 17:32	10/19/20 17:32	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 02:39	10/17/20 02:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	10	10/14/20 07:17	10/18/20 16:41	DMG	Mt. Juliet, TN

MW-3 L1271298-14 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/07/20 09:30 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:05	10/18/20 02:05	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 01:55	10/14/20 01:55	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	5	10/14/20 01:37	10/14/20 01:37	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:06	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	50	10/15/20 16:33	10/15/20 16:33	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561144	1	10/18/20 14:41	10/18/20 14:41	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 05:01	DMG	Mt. Juliet, TN

MW-88 L1271298-15 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:55 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:09	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 16:54	10/15/20 16:54	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560682	1	10/17/20 05:50	10/17/20 05:50	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561134	1	10/18/20 10:45	10/18/20 10:45	JHH	Mt. Juliet, TN

MW-88 L1271298-15 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:55 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 01:02	AEG	Mt. Juliet, TN

MW-22A L1271298-16 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 13:40 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:24	10/18/20 02:24	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 02:13	10/14/20 02:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 02:31	10/14/20 02:31	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:13	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 17:14	10/15/20 17:14	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 10:02	10/17/20 10:02	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 01:22	AEG	Mt. Juliet, TN

MW-10 L1271298-17 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 14:45 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:25	10/18/20 02:25	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 02:49	10/14/20 02:49	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 03:07	10/14/20 03:07	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:16	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 17:35	10/15/20 17:35	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 10:22	10/17/20 10:22	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 01:42	AEG	Mt. Juliet, TN

MW-123 L1271298-18 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 15:30 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:26	10/18/20 02:26	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 03:24	10/14/20 03:24	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 04:54	10/14/20 04:54	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:19	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:35	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 17:56	10/15/20 17:56	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 10:43	10/17/20 10:43	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 02:02	AEG	Mt. Juliet, TN

MW-4A L1271298-19 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:28	10/18/20 02:28	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 05:30	10/14/20 05:30	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 05:48	10/14/20 05:48	ELN	Mt. Juliet, TN

MW-4A L1271298-19 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 12:00	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:22	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 18:16	10/15/20 18:16	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 11:04	10/17/20 11:04	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 02:24	AEG	Mt. Juliet, TN

MW-5A L1271298-20 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 10:50	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:29	10/18/20 02:29	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 06:06	10/14/20 06:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 06:24	10/14/20 06:24	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:25	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:39	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 18:37	10/15/20 18:37	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 11:25	10/17/20 11:25	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 02:44	AEG	Mt. Juliet, TN

MW-7A L1271298-21 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 09:40	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558095	1	10/13/20 11:00	10/13/20 11:47	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558998	1	10/18/20 02:31	10/18/20 02:31	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	1	10/14/20 06:42	10/14/20 06:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557661	100	10/14/20 07:00	10/14/20 07:00	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:29	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:42	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 18:58	10/15/20 18:58	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 11:45	10/17/20 11:45	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 03:04	AEG	Mt. Juliet, TN

OCD-8A L1271298-22 GW

Collected by	Collected date/time	Received date/time
Scott Ude / HMI Team	10/06/20 08:40	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:04	10/16/20 20:04	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559473	1	10/15/20 11:00	10/15/20 18:19	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 16:07	10/14/20 16:07	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	5	10/14/20 15:50	10/14/20 15:50	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556620	1	10/09/20 09:03	10/11/20 11:27	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 05:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:32	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:45	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 19:18	10/15/20 19:18	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 12:06	10/17/20 12:06	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 03:24	AEG	Mt. Juliet, TN

OCD-1R L1271298-23 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:06	10/16/20 20:06	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 16:43	10/14/20 16:43	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	5	10/14/20 16:25	10/14/20 16:25	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 17:35	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 19:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 19:39	10/15/20 19:39	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 03:00	10/17/20 03:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/17/20 22:33	DMG	Mt. Juliet, TN

OCD-2A L1271298-24 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 08:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 18:17	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 19:59	10/15/20 19:59	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 03:20	10/17/20 03:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 05:41	DMG	Mt. Juliet, TN

OCD-3 L1271298-25 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 16:40
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 18:20	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 20:20	10/15/20 20:20	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 12:26	10/17/20 12:26	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 03:44	AEG	Mt. Juliet, TN

OCD-4 L1271298-26 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 16:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 18:23	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 20:41	10/15/20 20:41	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 12:47	10/17/20 12:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557496	1	10/13/20 08:36	10/14/20 04:04	AEG	Mt. Juliet, TN

MW-11A L1271298-27 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:15
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:07	10/16/20 20:07	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 17:01	10/14/20 17:01	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 17:19	10/14/20 17:19	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 18:26	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	10	10/12/20 14:40	10/13/20 18:43	LD	Mt. Juliet, TN

OCD-5 L1271298-28 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:09	10/16/20 20:09	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 17:37	10/14/20 17:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 17:55	10/14/20 17:55	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	1	10/12/20 14:40	10/13/20 18:30	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556440	5	10/12/20 14:40	10/13/20 18:47	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 21:01	10/15/20 21:01	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 13:08	10/17/20 13:08	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 03:27	TJD	Mt. Juliet, TN

MW-87 L1271298-29 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:50
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:22	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1559681	1	10/15/20 21:22	10/15/20 21:22	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 13:28	10/17/20 13:28	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 03:47	TJD	Mt. Juliet, TN

MW-18A L1271298-30 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 12:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558083	1	10/13/20 19:38	10/13/20 23:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:10	10/16/20 20:10	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1560164	1	10/15/20 23:14	10/16/20 04:47	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 19:07	10/14/20 19:07	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	5	10/14/20 18:50	10/14/20 18:50	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556620	1	10/09/20 09:03	10/11/20 10:36	TCT	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556426	1	10/11/20 12:34	10/12/20 05:17	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:35	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	10	10/12/20 12:55	10/14/20 23:18	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 13:49	10/17/20 13:49	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 04:07	TJD	Mt. Juliet, TN

MW-70 L1271298-31 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:38	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 01:17	10/16/20 01:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560896	1	10/18/20 06:28	10/18/20 06:28	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561236	1	10/18/20 15:47	10/18/20 15:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 04:27	TJD	Mt. Juliet, TN

MW-124 L1271298-32 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:11	10/16/20 20:11	SDL	Mt. Juliet, TN

MW-124 L1271298-32 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 19:25	10/14/20 19:25	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 19:43	10/14/20 19:43	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:41	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	10	10/12/20 12:55	10/14/20 19:01	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 01:39	10/16/20 01:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 14:10	10/17/20 14:10	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 04:47	TJD	Mt. Juliet, TN

DUP-EP-01 L1271298-33 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:13	10/16/20 20:13	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 20:01	10/14/20 20:01	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 20:19	10/14/20 20:19	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:44	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	10	10/12/20 12:55	10/14/20 19:05	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 02:01	10/16/20 02:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 14:31	10/17/20 14:31	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 05:07	TJD	Mt. Juliet, TN

DUP-EP-02 L1271298-34 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:18	10/16/20 20:18	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 20:37	10/14/20 20:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 20:55	10/14/20 20:55	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:54	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	10	10/12/20 12:55	10/14/20 19:08	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 02:23	10/16/20 02:23	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560846	1	10/17/20 14:52	10/17/20 14:52	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 05:28	TJD	Mt. Juliet, TN

DUP-EP-03 L1271298-35 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:19	10/16/20 20:19	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 21:13	10/14/20 21:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/14/20 21:31	10/14/20 21:31	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 01:57	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:22	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 02:45	10/16/20 02:45	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 03:40	10/17/20 03:40	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 06:01	DMG	Mt. Juliet, TN

EB-EP-01 L1271298-36 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:50
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:21	10/16/20 20:21	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 22:25	10/14/20 22:25	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:01	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:25	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/15/20 19:55	10/15/20 19:55	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560682	1	10/17/20 05:09	10/17/20 05:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561134	1	10/18/20 11:05	10/18/20 11:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 05:48	TJD	Mt. Juliet, TN

EB-EP-02 L1271298-37 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:24	10/16/20 20:24	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 23:36	10/14/20 23:36	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:04	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:28	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/15/20 20:17	10/15/20 20:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 18:53	10/16/20 18:53	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 06:08	TJD	Mt. Juliet, TN

EB-EP-03 L1271298-38 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:25	10/16/20 20:25	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/14/20 23:54	10/14/20 23:54	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:07	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:32	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/15/20 20:39	10/15/20 20:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 19:13	10/16/20 19:13	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 06:28	TJD	Mt. Juliet, TN

EB-EP-04 L1271298-39 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:45
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:27	10/16/20 20:27	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 00:12	10/15/20 00:12	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:10	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:35	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/15/20 21:01	10/15/20 21:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 19:34	10/16/20 19:34	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 06:48	TJD	Mt. Juliet, TN

TRIP BLANK-EP-01 L1271298-40 GW

			Collected by	Collected date/time	Received date/time
			Scott Ude / HMI Team	10/06/20 00:00	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 18:13	10/16/20 18:13	BMB	Mt. Juliet, TN

TRIP BLANK-EP-02 L1271298-41 GW

			Collected by	Collected date/time	Received date/time
			Scott Ude / HMI Team	10/06/20 00:00	10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 18:33	10/16/20 18:33	BMB	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 10/22/20 20:56

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1271298-01	MW-86	3511/8015

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7830		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:42	WG1558998

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	0.00261	J	0.00180	0.00500	1	10/15/2020 18:18	WG1559473

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	671		37.9	100	100	10/13/2020 11:02	WG1557661
Fluoride	6.03		0.0640	0.150	1	10/13/2020 10:41	WG1557661
Sulfate	3100		59.4	500	100	10/13/2020 11:02	WG1557661

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/11/2020 11:25	WG1556620

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.671		0.0254	0.200	1	10/12/2020 05:10	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0948		0.000735	0.00200	1	10/15/2020 23:13	WG1556439
Barium	0.0184	J	0.00778	0.0200	1	10/15/2020 23:13	WG1556439
Cadmium	U		0.000478	0.00100	1	10/15/2020 23:13	WG1556439
Calcium	535		0.480	1.00	1	10/15/2020 23:13	WG1556439
Chromium	0.0388		0.00149	0.00200	1	10/15/2020 23:13	WG1556439
Cobalt	U		0.000477	0.00200	1	10/15/2020 23:13	WG1556439
Iron	0.210		0.0489	0.100	1	10/15/2020 23:13	WG1556439
Lead	0.00356	J	0.00249	0.00500	1	10/15/2020 23:13	WG1556439
Manganese	0.170		0.00132	0.00500	1	10/15/2020 23:13	WG1556439
Nickel	0.00447		0.000952	0.00200	1	10/15/2020 23:13	WG1556439
Potassium	6.70		0.534	2.00	1	10/15/2020 23:13	WG1556439
Selenium	0.00443		0.000657	0.00200	1	10/15/2020 23:13	WG1556439
Sodium	947		0.630	2.00	1	10/15/2020 23:13	WG1556439
Uranium	U		0.00754	0.0200	1	10/15/2020 23:13	WG1556439
Vanadium	0.0209		0.000986	0.00500	1	10/15/2020 23:13	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		6.28	20.0	200	10/16/2020 10:14	WG1560065
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*78.0-120*		*10/16/2020 10:14*	WG1560065

Sample Narrative:

L1271298-01 WG1560065: Dilution due to foam.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	10/17/2020 16:49	WG1560666
Benzene	0.0313		0.00188	0.0200	20	10/17/2020 16:49	WG1560666
Bromodichloromethane	U		0.00272	0.0200	20	10/17/2020 16:49	WG1560666
Bromoform	U		0.00258	0.0200	20	10/17/2020 16:49	WG1560666
Bromomethane	U		0.0121	0.100	20	10/17/2020 16:49	WG1560666
n-Butylbenzene	U		0.00314	0.0200	20	10/17/2020 16:49	WG1560666
sec-Butylbenzene	U		0.00250	0.0200	20	10/17/2020 16:49	WG1560666
Carbon disulfide	U		0.00192	0.0200	20	10/17/2020 16:49	WG1560666
Carbon tetrachloride	U		0.00256	0.0200	20	10/17/2020 16:49	WG1560666
Chlorobenzene	U		0.00232	0.0200	20	10/17/2020 16:49	WG1560666
Chlorodibromomethane	U		0.00280	0.0200	20	10/17/2020 16:49	WG1560666
Chloroethane	U		0.00384	0.100	20	10/17/2020 16:49	WG1560666
Chloroform	U		0.00222	0.100	20	10/17/2020 16:49	WG1560666
Chloromethane	U		0.0192	0.0500	20	10/17/2020 16:49	WG1560666
1,2-Dibromoethane	U		0.00252	0.0200	20	10/17/2020 16:49	WG1560666
1,1-Dichloroethane	U		0.00200	0.0200	20	10/17/2020 16:49	WG1560666
1,2-Dichloroethane	U		0.00164	0.0200	20	10/17/2020 16:49	WG1560666
1,1-Dichloroethene	U		0.00376	0.0200	20	10/17/2020 16:49	WG1560666
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	10/17/2020 16:49	WG1560666
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	10/17/2020 16:49	WG1560666
1,2-Dichloropropane	U		0.00298	0.0200	20	10/17/2020 16:49	WG1560666
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	10/17/2020 16:49	WG1560666
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	10/17/2020 16:49	WG1560666
Ethylbenzene	0.0228		0.00274	0.0200	20	10/17/2020 16:49	WG1560666
Isopropylbenzene	0.00405	J	0.00210	0.0200	20	10/17/2020 16:49	WG1560666
p-Isopropyltoluene	U		0.00240	0.0200	20	10/17/2020 16:49	WG1560666
2-Butanone (MEK)	U		0.0238	0.200	20	10/17/2020 16:49	WG1560666
2-Hexanone	U		0.0157	0.200	20	10/17/2020 16:49	WG1560666
Methylene Chloride	U		0.00860	0.100	20	10/17/2020 16:49	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	10/17/2020 16:49	WG1560666
Methyl tert-butyl ether	U		0.00202	0.0200	20	10/17/2020 16:49	WG1560666
Naphthalene	U		0.0200	0.100	20	10/17/2020 16:49	WG1560666
n-Propylbenzene	0.00471	J	0.00199	0.0200	20	10/17/2020 16:49	WG1560666
Styrene	U		0.00236	0.0200	20	10/17/2020 16:49	WG1560666
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	10/17/2020 16:49	WG1560666
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	10/17/2020 16:49	WG1560666
Tetrachloroethene	U		0.00600	0.0200	20	10/17/2020 16:49	WG1560666
Toluene	0.0435		0.00556	0.0200	20	10/17/2020 16:49	WG1560666
1,1,1-Trichloroethane	U		0.00298	0.0200	20	10/17/2020 16:49	WG1560666
1,1,2-Trichloroethane	U		0.00316	0.0200	20	10/17/2020 16:49	WG1560666
Trichloroethene	U		0.00380	0.0200	20	10/20/2020 07:09	WG1561731
1,2,4-Trimethylbenzene	0.0223		0.00644	0.0200	20	10/17/2020 16:49	WG1560666
1,3,5-Trimethylbenzene	0.00604	J	0.00208	0.0200	20	10/17/2020 16:49	WG1560666
Vinyl chloride	U		0.00468	0.0200	20	10/17/2020 16:49	WG1560666
o-Xylene	0.0288		0.00348	0.0200	20	10/17/2020 16:49	WG1560666
m&p-Xylene	0.0295	J	0.00860	0.0400	20	10/17/2020 16:49	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Xylenes, Total	0.0583	J	0.00348	0.0600	20	10/17/2020 16:49	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 16:49*	WG1560666
(S) Toluene-d8	*110*			*80.0-120*		*10/20/2020 07:09*	WG1561731
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 16:49*	WG1560666
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/20/2020 07:09*	WG1561731
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*10/17/2020 16:49*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 07:09*	WG1561731

Sample Narrative:

L1271298-01 WG1560666: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	80.2		0.494	2.00	20	10/15/2020 05:52	WG1557495
(S) o-Terphenyl	*621*	J7		*31.0-160*		*10/15/2020 05:52*	WG1557495

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7000		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:44	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1540		37.9	100	100	10/13/2020 11:45	WG1557661
Fluoride	3.81		0.0640	0.150	1	10/13/2020 11:23	WG1557661
Sulfate	2870		59.4	500	100	10/13/2020 11:45	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00769		0.000735	0.00200	1	10/15/2020 20:30	WG1556439
Barium	0.0109	J	0.00778	0.0200	1	10/15/2020 20:30	WG1556439
Calcium	608		0.480	1.00	1	10/15/2020 20:30	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:30	WG1556439
Iron	4.31		0.0489	0.100	1	10/15/2020 20:30	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:30	WG1556439
Manganese	1.38		0.00132	0.00500	1	10/15/2020 20:30	WG1556439
Potassium	2.67		0.534	2.00	1	10/15/2020 20:30	WG1556439
Selenium	0.000719	J	0.000657	0.00200	1	10/15/2020 20:30	WG1556439
Sodium	1200		3.15	10.0	5	10/15/2020 21:01	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 08:20	WG1560065
(S) a,a,a-Trifluorotoluene(FID)	*99.5*			*78.0-120*		*10/16/2020 08:20*	WG1560065

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	10/17/2020 17:09	WG1560666
Benzene	U		0.000471	0.00500	5	10/17/2020 17:09	WG1560666
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 17:09	WG1560666
Bromoform	U		0.000645	0.00500	5	10/17/2020 17:09	WG1560666
Bromomethane	U		0.00303	0.0250	5	10/17/2020 17:09	WG1560666
n-Butylbenzene	U		0.000785	0.00500	5	10/17/2020 17:09	WG1560666
sec-Butylbenzene	U		0.000625	0.00500	5	10/17/2020 17:09	WG1560666
Carbon disulfide	U		0.000481	0.00500	5	10/17/2020 17:09	WG1560666
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 17:09	WG1560666
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 17:09	WG1560666
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 17:09	WG1560666
Chloroethane	U		0.000960	0.0250	5	10/17/2020 17:09	WG1560666
Chloroform	U		0.000555	0.0250	5	10/17/2020 17:09	WG1560666
Chloromethane	U		0.00480	0.0125	5	10/17/2020 17:09	WG1560666
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 17:09	WG1560666
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 17:09	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 17:09	WG1560666
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 17:09	WG1560666
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 17:09	WG1560666
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 17:09	WG1560666
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 17:09	WG1560666
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 17:09	WG1560666
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	10/17/2020 17:09	WG1560666
Ethylbenzene	U		0.000685	0.00500	5	10/17/2020 17:09	WG1560666
Isopropylbenzene	U		0.000525	0.00500	5	10/17/2020 17:09	WG1560666
p-Isopropyltoluene	U		0.000600	0.00500	5	10/17/2020 17:09	WG1560666
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 17:09	WG1560666
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 17:09	WG1560666
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 17:09	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 17:09	WG1560666
Methyl tert-butyl ether	U		0.000505	0.00500	5	10/17/2020 17:09	WG1560666
Naphthalene	U		0.00500	0.0250	5	10/17/2020 17:09	WG1560666
n-Propylbenzene	U		0.000497	0.00500	5	10/17/2020 17:09	WG1560666
Styrene	U		0.000590	0.00500	5	10/17/2020 17:09	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 17:09	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 17:09	WG1560666
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 17:09	WG1560666
Toluene	U		0.00139	0.00500	5	10/17/2020 17:09	WG1560666
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 17:09	WG1560666
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 17:09	WG1560666
Trichloroethene	U		0.000950	0.00500	5	10/20/2020 05:48	WG1561731
1,2,4-Trimethylbenzene	U		0.00161	0.00500	5	10/17/2020 17:09	WG1560666
1,3,5-Trimethylbenzene	U		0.000520	0.00500	5	10/17/2020 17:09	WG1560666
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 17:09	WG1560666
o-Xylene	U		0.000870	0.00500	5	10/17/2020 17:09	WG1560666
m&p-Xylene	U		0.00215	0.0100	5	10/17/2020 17:09	WG1560666
Xylenes, Total	U		0.000870	0.0150	5	10/17/2020 17:09	WG1560666
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 17:09*	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2020 05:48*	WG1561731
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 17:09*	WG1560666
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/20/2020 05:48*	WG1561731
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*10/17/2020 17:09*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 05:48*	WG1561731

Sample Narrative:

L1271298-02 WG1560666: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.402		0.0247	0.100	1	10/15/2020 04:35	WG1557495
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/15/2020 04:35*	WG1557495

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5180		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:45	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	690		37.9	100	100	10/13/2020 16:26	WG1557661
Fluoride	4.87		0.0640	0.150	1	10/13/2020 12:06	WG1557661
Sulfate	2400		59.4	500	100	10/13/2020 16:26	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.105		0.000735	0.00200	1	10/15/2020 20:33	WG1556439
Barium	0.0134	J	0.00778	0.0200	1	10/15/2020 20:33	WG1556439
Calcium	595		0.480	1.00	1	10/15/2020 20:33	WG1556439
Chromium	0.00380		0.00149	0.00200	1	10/15/2020 20:33	WG1556439
Iron	1.88		0.0489	0.100	1	10/15/2020 20:33	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:33	WG1556439
Manganese	2.51		0.00132	0.00500	1	10/15/2020 20:33	WG1556439
Potassium	3.34		0.534	2.00	1	10/15/2020 20:33	WG1556439
Selenium	0.00320		0.000657	0.00200	1	10/15/2020 20:33	WG1556439
Sodium	665		0.630	2.00	1	10/15/2020 20:33	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/14/2020 11:44	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*		*10/14/2020 11:44*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 06:37	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 06:37	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 06:37	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 06:37	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 06:37	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 06:37	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 06:37	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 06:37	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 06:37	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 06:37	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 06:37	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 06:37	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 06:37	WG1559339
Chloromethane	U		0.000960	0.00250	1	10/16/2020 06:37	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 06:37	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 06:37	WG1559339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 06:37	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 06:37	WG1559339
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 06:37	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 06:37	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 06:37	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 06:37	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 06:37	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 06:37	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 06:37	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 06:37	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 06:37	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 06:37	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 06:37	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 06:37	WG1559339
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 06:37	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 06:37	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 06:37	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 06:37	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 06:37	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 06:37	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 06:37	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 06:37	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 06:37	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 06:37	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 20:19	WG1560572
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 06:37	WG1559339
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 06:37	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 06:37	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 06:37	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 06:37	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 06:37	WG1559339
(S) Toluene-d8	*109*			*80.0-120*		*10/16/2020 06:37*	WG1559339
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 20:19*	WG1560572
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/16/2020 06:37*	WG1559339
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*10/16/2020 20:19*	WG1560572
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*10/16/2020 06:37*	WG1559339
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*10/16/2020 20:19*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.268		0.0247	0.100	1	10/13/2020 22:20	WG1557496
(S) o-Terphenyl	*107*			*31.0-160*		*10/13/2020 22:20*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10800		14.1	50.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:47	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1670		37.9	100	100	10/13/2020 17:20	WG1557661
Fluoride	6.29		0.640	1.50	10	10/13/2020 17:02	WG1557661
Sulfate	4910		59.4	500	100	10/13/2020 17:20	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.187		0.000735	0.00200	1	10/15/2020 23:17	WG1556439
Barium	0.0134	J	0.00778	0.0200	1	10/15/2020 23:17	WG1556439
Calcium	579		0.480	1.00	1	10/15/2020 23:17	WG1556439
Chromium	0.00501		0.00149	0.00200	1	10/15/2020 23:17	WG1556439
Iron	9.43		0.0489	0.100	1	10/15/2020 23:17	WG1556439
Lead	0.00278	J	0.00249	0.00500	1	10/15/2020 23:17	WG1556439
Manganese	3.05		0.00132	0.00500	1	10/15/2020 23:17	WG1556439
Potassium	6.23		0.534	2.00	1	10/15/2020 23:17	WG1556439
Selenium	0.00589		0.000657	0.00200	1	10/15/2020 23:17	WG1556439
Sodium	1350		6.30	20.0	10	10/15/2020 20:37	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		3.14	10.0	100	10/16/2020 09:52	WG1560065
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*10/16/2020 09:52*	WG1560065

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	10/17/2020 17:28	WG1560666
Benzene	U		0.000941	0.0100	10	10/17/2020 17:28	WG1560666
Bromodichloromethane	U		0.00136	0.0100	10	10/17/2020 17:28	WG1560666
Bromoform	U		0.00129	0.0100	10	10/17/2020 17:28	WG1560666
Bromomethane	U		0.00605	0.0500	10	10/17/2020 17:28	WG1560666
n-Butylbenzene	U		0.00157	0.0100	10	10/17/2020 17:28	WG1560666
sec-Butylbenzene	U		0.00125	0.0100	10	10/17/2020 17:28	WG1560666
Carbon disulfide	U		0.000962	0.0100	10	10/17/2020 17:28	WG1560666
Carbon tetrachloride	U		0.00128	0.0100	10	10/17/2020 17:28	WG1560666
Chlorobenzene	U		0.00116	0.0100	10	10/17/2020 17:28	WG1560666
Chlorodibromomethane	U		0.00140	0.0100	10	10/17/2020 17:28	WG1560666
Chloroethane	U		0.00192	0.0500	10	10/17/2020 17:28	WG1560666
Chloroform	U		0.00111	0.0500	10	10/17/2020 17:28	WG1560666
Chloromethane	U		0.00960	0.0250	10	10/17/2020 17:28	WG1560666
1,2-Dibromoethane	U		0.00126	0.0100	10	10/17/2020 17:28	WG1560666
1,1-Dichloroethane	U		0.00100	0.0100	10	10/17/2020 17:28	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000819	0.0100	10	10/17/2020 17:28	WG1560666
1,1-Dichloroethene	U		0.00188	0.0100	10	10/17/2020 17:28	WG1560666
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	10/17/2020 17:28	WG1560666
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	10/17/2020 17:28	WG1560666
1,2-Dichloropropane	U		0.00149	0.0100	10	10/17/2020 17:28	WG1560666
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	10/17/2020 17:28	WG1560666
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	10/17/2020 17:28	WG1560666
Ethylbenzene	U		0.00137	0.0100	10	10/17/2020 17:28	WG1560666
Isopropylbenzene	U		0.00105	0.0100	10	10/17/2020 17:28	WG1560666
p-Isopropyltoluene	U		0.00120	0.0100	10	10/17/2020 17:28	WG1560666
2-Butanone (MEK)	U		0.0119	0.100	10	10/17/2020 17:28	WG1560666
2-Hexanone	U		0.00787	0.100	10	10/17/2020 17:28	WG1560666
Methylene Chloride	U		0.00430	0.0500	10	10/17/2020 17:28	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	10/17/2020 17:28	WG1560666
Methyl tert-butyl ether	0.00104	J	0.00101	0.0100	10	10/17/2020 17:28	WG1560666
Naphthalene	U		0.0100	0.0500	10	10/17/2020 17:28	WG1560666
n-Propylbenzene	U		0.000993	0.0100	10	10/17/2020 17:28	WG1560666
Styrene	U		0.00118	0.0100	10	10/17/2020 17:28	WG1560666
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	10/17/2020 17:28	WG1560666
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	10/17/2020 17:28	WG1560666
Tetrachloroethene	U		0.00300	0.0100	10	10/17/2020 17:28	WG1560666
Toluene	U		0.00278	0.0100	10	10/17/2020 17:28	WG1560666
1,1,1-Trichloroethane	U		0.00149	0.0100	10	10/17/2020 17:28	WG1560666
1,1,2-Trichloroethane	U		0.00158	0.0100	10	10/17/2020 17:28	WG1560666
Trichloroethene	U		0.00190	0.0100	10	10/20/2020 06:49	WG1561731
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	10/17/2020 17:28	WG1560666
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	10/17/2020 17:28	WG1560666
Vinyl chloride	U		0.00234	0.0100	10	10/17/2020 17:28	WG1560666
o-Xylene	U		0.00174	0.0100	10	10/17/2020 17:28	WG1560666
m&p-Xylene	U		0.00430	0.0200	10	10/17/2020 17:28	WG1560666
Xylenes, Total	U		0.00174	0.0300	10	10/17/2020 17:28	WG1560666
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 17:28*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 06:49*	WG1561731
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/17/2020 17:28*	WG1560666
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2020 06:49*	WG1561731
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/17/2020 17:28*	WG1560666
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/20/2020 06:49*	WG1561731

Sample Narrative:

L1271298-04 WG1560666: Lowest possible dilution due to sample foaming.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	59.2		0.494	2.00	20	10/14/2020 06:25	WG1557496
(S) o-Terphenyl	*0.000*	J7		*31.0-160*		*10/14/2020 06:25*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4220		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:48	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	940		37.9	100	100	10/13/2020 17:56	WG1557661
Fluoride	2.54		0.0640	0.150	1	10/13/2020 17:38	WG1557661
Sulfate	1590		59.4	500	100	10/13/2020 17:56	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00425		0.000735	0.00200	1	10/15/2020 20:41	WG1556439
Barium	0.0223		0.00778	0.0200	1	10/15/2020 20:41	WG1556439
Calcium	353		0.480	1.00	1	10/15/2020 20:41	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:41	WG1556439
Iron	4.97		0.0489	0.100	1	10/15/2020 20:41	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:41	WG1556439
Manganese	1.01		0.00132	0.00500	1	10/15/2020 20:41	WG1556439
Potassium	3.78		0.534	2.00	1	10/15/2020 20:41	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 20:41	WG1556439
Sodium	737		0.630	2.00	1	10/15/2020 20:41	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		1.57	5.00	50	10/14/2020 15:03	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*		*10/14/2020 15:03*	WG1558684

Sample Narrative:

L1271298-05 WG1558684: Dilution due to foam.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 06:56	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 06:56	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 06:56	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 06:56	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 06:56	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 06:56	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 06:56	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 06:56	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 06:56	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 06:56	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 06:56	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 06:56	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 06:56	WG1559339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloromethane	U		0.000960	0.00250	1	10/16/2020 06:56	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 06:56	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 06:56	WG1559339
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 06:56	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 06:56	WG1559339
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 06:56	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 06:56	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 06:56	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 06:56	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 06:56	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 06:56	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 06:56	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 06:56	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 06:56	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 06:56	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 06:56	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 06:56	WG1559339
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 06:56	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 06:56	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 06:56	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 06:56	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 06:56	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 06:56	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 06:56	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 06:56	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 06:56	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 06:56	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 20:39	WG1560572
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 06:56	WG1559339
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 06:56	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 06:56	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 06:56	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 06:56	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 06:56	WG1559339
(S) Toluene-d8	*108*			*80.0-120*		*10/16/2020 06:56*	WG1559339
(S) Toluene-d8	*107*			*80.0-120*		*10/16/2020 20:39*	WG1560572
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/16/2020 06:56*	WG1559339
(S) 4-Bromofluorobenzene	*91.8*			*77.0-126*		*10/16/2020 20:39*	WG1560572
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/16/2020 06:56*	WG1559339
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*10/16/2020 20:39*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.122		0.0247	0.100	1	10/13/2020 22:40	WG1557496
(S) o-Terphenyl	*100*			*31.0-160*		*10/13/2020 22:40*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6470		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:49	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2180		37.9	100	100	10/13/2020 18:32	WG1557661
Fluoride	5.58		0.640	1.50	10	10/13/2020 18:14	WG1557661
Sulfate	2600		59.4	500	100	10/13/2020 18:32	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00397		0.000735	0.00200	1	10/15/2020 20:45	WG1556439
Barium	0.0158	J	0.00778	0.0200	1	10/15/2020 20:45	WG1556439
Calcium	726		0.480	1.00	1	10/15/2020 20:45	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:45	WG1556439
Iron	1.95		0.0489	0.100	1	10/15/2020 20:45	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 20:45	WG1556439
Manganese	4.98		0.00132	0.00500	1	10/15/2020 20:45	WG1556439
Potassium	7.03		0.534	2.00	1	10/15/2020 20:45	WG1556439
Selenium	U		0.000657	0.00200	1	10/15/2020 20:45	WG1556439
Sodium	1200		3.15	10.0	5	10/15/2020 21:04	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0582	J	0.0314	0.100	1	10/14/2020 12:09	WG1558684
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*		*10/14/2020 12:09*	WG1558684

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 07:15	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 07:15	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 07:15	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 07:15	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 07:15	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 07:15	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 07:15	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 07:15	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 07:15	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 07:15	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 07:15	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 07:15	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 07:15	WG1559339
Chloromethane	U		0.000960	0.00250	1	10/16/2020 07:15	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 07:15	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 07:15	WG1559339

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Collected date/time: 10/06/20 10:30
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 07:15	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 07:15	WG1559339
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 07:15	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 07:15	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 07:15	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 07:15	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 07:15	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 07:15	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 07:15	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 07:15	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 07:15	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 07:15	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 07:15	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 07:15	WG1559339
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 07:15	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 07:15	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 07:15	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 07:15	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 07:15	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 07:15	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 07:15	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 07:15	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 07:15	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 07:15	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 21:00	WG1560572
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 07:15	WG1559339
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 07:15	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 07:15	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 07:15	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 07:15	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 07:15	WG1559339
(S) Toluene-d8	*107*			*80.0-120*		*10/16/2020 07:15*	WG1559339
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 21:00*	WG1560572
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/16/2020 07:15*	WG1559339
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/16/2020 21:00*	WG1560572
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*10/16/2020 07:15*	WG1559339
(S) 1,2-Dichloroethane-d4	*129*			*70.0-130*		*10/16/2020 21:00*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.333		0.0247	0.100	1	10/13/2020 23:01	WG1557496
(S) o-Terphenyl	*104*			*31.0-160*		*10/13/2020 23:01*	WG1557496

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8370		14.1	50.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	7.45		0.500	1.00	10	10/18/2020 01:50	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1800		37.9	100	100	10/13/2020 19:08	WG1557661
Fluoride	8.34		0.0640	0.150	1	10/13/2020 18:50	WG1557661
Sulfate	3610		59.4	500	100	10/13/2020 19:08	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0779		0.000735	0.00200	1	10/15/2020 20:48	WG1556439
Barium	0.0153	J	0.00778	0.0200	1	10/15/2020 20:48	WG1556439
Calcium	554		0.480	1.00	1	10/15/2020 20:48	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 20:48	WG1556439
Iron	0.0779	J	0.0489	0.100	1	10/15/2020 20:48	WG1556439
Lead	0.00433	J	0.00249	0.00500	1	10/15/2020 20:48	WG1556439
Manganese	1.39		0.00132	0.00500	1	10/15/2020 20:48	WG1556439
Potassium	35.8		0.534	2.00	1	10/15/2020 20:48	WG1556439
Selenium	0.0354		0.000657	0.00200	1	10/15/2020 20:48	WG1556439
Sodium	2000		3.15	10.0	5	10/15/2020 21:08	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.64		0.0314	0.100	1	10/16/2020 08:43	WG1560065
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*78.0-120*		*10/16/2020 08:43*	WG1560065

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 07:35	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 07:35	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 07:35	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 07:35	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 07:35	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 07:35	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 07:35	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 07:35	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 07:35	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 07:35	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 07:35	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 07:35	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 07:35	WG1559339
Chloromethane	U		0.000960	0.00250	1	10/16/2020 07:35	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 07:35	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 07:35	WG1559339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 07:35	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 07:35	WG1559339
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 07:35	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 07:35	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 07:35	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 07:35	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 07:35	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 07:35	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 07:35	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 07:35	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 07:35	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 07:35	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 07:35	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 07:35	WG1559339
Methyl tert-butyl ether	0.000761	J	0.000101	0.00100	1	10/16/2020 07:35	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 07:35	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 07:35	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 07:35	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 07:35	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 07:35	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 07:35	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 07:35	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 07:35	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 07:35	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 21:20	WG1560572
1,2,4-Trimethylbenzene	0.00157		0.000322	0.00100	1	10/16/2020 07:35	WG1559339
1,3,5-Trimethylbenzene	0.000124	J	0.000104	0.00100	1	10/16/2020 07:35	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 07:35	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 07:35	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 07:35	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 07:35	WG1559339
(S) Toluene-d8	*109*			*80.0-120*		*10/16/2020 07:35*	WG1559339
(S) Toluene-d8	*102*			*80.0-120*		*10/16/2020 21:20*	WG1560572
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/16/2020 07:35*	WG1559339
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/16/2020 21:20*	WG1560572
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/16/2020 07:35*	WG1559339
(S) 1,2-Dichloroethane-d4	*128*			*70.0-130*		*10/16/2020 21:20*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	15.6		0.123	0.500	5	10/14/2020 05:25	WG1557496
(S) o-Terphenyl	*111*			*31.0-160*		*10/14/2020 05:25*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4770		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0609	J	0.0500	0.100	1	10/18/2020 01:56	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1240		37.9	100	100	10/13/2020 20:19	WG1557661
Fluoride	2.96		0.320	0.750	5	10/13/2020 20:01	WG1557661
Sulfate	1860		59.4	500	100	10/13/2020 20:19	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00798		0.000735	0.00200	1	10/15/2020 15:24	WG1556439
Barium	0.0148	J	0.00778	0.0200	1	10/15/2020 15:24	WG1556439
Calcium	292		0.480	1.00	1	10/15/2020 15:24	WG1556439
Chromium	U		0.00149	0.00200	1	10/15/2020 15:24	WG1556439
Iron	0.700		0.0489	0.100	1	10/15/2020 15:24	WG1556439
Lead	U		0.00249	0.00500	1	10/15/2020 15:24	WG1556439
Manganese	0.491	V	0.00132	0.00500	1	10/15/2020 15:24	WG1556439
Potassium	3.46		0.534	2.00	1	10/15/2020 15:24	WG1556439
Selenium	0.000658	J	0.000657	0.00200	1	10/15/2020 15:24	WG1556439
Sodium	908		3.15	10.0	5	10/15/2020 21:58	WG1556439

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/15/2020 06:51	WG1559027
(S) a,a,a-Trifluorotoluene(FID)	*122*	J1		*78.0-120*		*10/15/2020 06:51*	WG1559027

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 08:21	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 08:21	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 08:21	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 08:21	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 08:21	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 08:21	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 08:21	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 08:21	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 08:21	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 08:21	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 08:21	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 08:21	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 08:21	WG1559339
Chloromethane	U		0.000960	0.00250	1	10/16/2020 08:21	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 08:21	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 08:21	WG1559339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 08:21	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 08:21	WG1559339
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 08:21	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 08:21	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 08:21	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 08:21	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 08:21	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 08:21	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 08:21	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 08:21	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 08:21	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 08:21	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 08:21	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 08:21	WG1559339
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 08:21	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 08:21	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 08:21	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 08:21	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 08:21	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 08:21	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 08:21	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 08:21	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 08:21	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 08:21	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 21:40	WG1560572
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 08:21	WG1559339
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 08:21	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 08:21	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 08:21	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 08:21	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 08:21	WG1559339
(S) Toluene-d8	*107*			*80.0-120*		*10/16/2020 08:21*	WG1559339
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 21:40*	WG1560572
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/16/2020 08:21*	WG1559339
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/16/2020 21:40*	WG1560572
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*10/16/2020 08:21*	WG1559339
(S) 1,2-Dichloroethane-d4	*124*			*70.0-130*		*10/16/2020 21:40*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.153		0.0247	0.100	1	10/14/2020 11:42	WG1557496
(S) o-Terphenyl	*98.9*			*31.0-160*		*10/14/2020 11:42*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	11400		18.8	66.7	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:58	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4850		37.9	100	100	10/13/2020 20:55	WG1557661
Fluoride	2.27		0.0640	0.150	1	10/13/2020 20:37	WG1557661
Sulfate	2870		59.4	500	100	10/13/2020 20:55	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00831		0.000735	0.00200	1	10/13/2020 16:17	WG1556440
Barium	0.0220		0.00778	0.0200	1	10/13/2020 16:17	WG1556440
Calcium	922		0.480	1.00	1	10/13/2020 16:17	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 16:17	WG1556440
Iron	4.53		0.0489	0.100	1	10/13/2020 16:17	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 16:17	WG1556440
Manganese	2.54	V	0.00132	0.00500	1	10/13/2020 16:17	WG1556440
Potassium	15.8		0.534	2.00	1	10/13/2020 16:17	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 16:17	WG1556440
Sodium	2720		3.15	10.0	5	10/13/2020 18:56	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.159		0.0314	0.100	1	10/16/2020 10:36	WG1559436
(S) a,a,a-Trifluorotoluene(FID)	*99.3*			*78.0-120*		*10/16/2020 10:36*	WG1559436

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 08:39	WG1559339
Benzene	U		0.0000941	0.00100	1	10/16/2020 08:39	WG1559339
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 08:39	WG1559339
Bromoform	U		0.000129	0.00100	1	10/16/2020 08:39	WG1559339
Bromomethane	U		0.000605	0.00500	1	10/16/2020 08:39	WG1559339
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 08:39	WG1559339
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 08:39	WG1559339
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 08:39	WG1559339
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 08:39	WG1559339
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 08:39	WG1559339
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 08:39	WG1559339
Chloroethane	U		0.000192	0.00500	1	10/16/2020 08:39	WG1559339
Chloroform	U		0.000111	0.00500	1	10/16/2020 08:39	WG1559339
Chloromethane	U		0.000960	0.00250	1	10/16/2020 08:39	WG1559339
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 08:39	WG1559339
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 08:39	WG1559339

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 08:39	WG1559339
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 08:39	WG1559339
cis-1,2-Dichloroethene	0.000170	B J	0.000126	0.00100	1	10/16/2020 08:39	WG1559339
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 08:39	WG1559339
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 08:39	WG1559339
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 08:39	WG1559339
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 08:39	WG1559339
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 08:39	WG1559339
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 08:39	WG1559339
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 08:39	WG1559339
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 08:39	WG1559339
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 08:39	WG1559339
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 08:39	WG1559339
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 08:39	WG1559339
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 08:39	WG1559339
Naphthalene	U		0.00100	0.00500	1	10/16/2020 08:39	WG1559339
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 08:39	WG1559339
Styrene	U		0.000118	0.00100	1	10/16/2020 08:39	WG1559339
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 08:39	WG1559339
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 08:39	WG1559339
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 08:39	WG1559339
Toluene	U		0.000278	0.00100	1	10/16/2020 08:39	WG1559339
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 08:39	WG1559339
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 08:39	WG1559339
Trichloroethene	U		0.000190	0.00100	1	10/16/2020 22:00	WG1560572
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 08:39	WG1559339
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 08:39	WG1559339
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 08:39	WG1559339
o-Xylene	U		0.000174	0.00100	1	10/16/2020 08:39	WG1559339
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 08:39	WG1559339
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 08:39	WG1559339
(S) Toluene-d8	*110*			*80.0-120*		*10/16/2020 08:39*	WG1559339
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 22:00*	WG1560572
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/16/2020 08:39*	WG1559339
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/16/2020 22:00*	WG1560572
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/16/2020 08:39*	WG1559339
(S) 1,2-Dichloroethane-d4	*123*			*70.0-130*		*10/16/2020 22:00*	WG1560572

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.622		0.0247	0.100	1	10/14/2020 00:01	WG1557496
(S) o-Terphenyl	*102*			*31.0-160*		*10/14/2020 00:01*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	10800		18.8	66.7	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 01:59	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2680		37.9	100	100	10/13/2020 21:31	WG1557661
Fluoride	2.75		0.0640	0.150	1	10/13/2020 21:13	WG1557661
Sulfate	3640		59.4	500	100	10/13/2020 21:31	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0974		0.000735	0.00200	1	10/13/2020 16:30	WG1556440
Barium	0.0149	J	0.00778	0.0200	1	10/13/2020 16:30	WG1556440
Calcium	643		0.480	1.00	1	10/13/2020 16:30	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 16:30	WG1556440
Iron	10.4		0.0489	0.100	1	10/13/2020 16:30	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 16:30	WG1556440
Manganese	2.63		0.00132	0.00500	1	10/13/2020 16:30	WG1556440
Potassium	6.37		0.534	2.00	1	10/13/2020 16:30	WG1556440
Selenium	0.00159	J	0.000657	0.00200	1	10/13/2020 16:30	WG1556440
Sodium	2590		3.15	10.0	5	10/13/2020 18:59	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.878		0.0314	0.100	1	10/16/2020 10:59	WG1559436
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*10/16/2020 10:59*	WG1559436

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 15:31	WG1560666
Benzene	U		0.0000941	0.00100	1	10/17/2020 15:31	WG1560666
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 15:31	WG1560666
Bromoform	U		0.000129	0.00100	1	10/17/2020 15:31	WG1560666
Bromomethane	U		0.000605	0.00500	1	10/17/2020 15:31	WG1560666
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 15:31	WG1560666
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 15:31	WG1560666
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 15:31	WG1560666
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 15:31	WG1560666
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 15:31	WG1560666
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 15:31	WG1560666
Chloroethane	U		0.000192	0.00500	1	10/17/2020 15:31	WG1560666
Chloroform	U		0.000111	0.00500	1	10/17/2020 15:31	WG1560666
Chloromethane	U		0.000960	0.00250	1	10/17/2020 15:31	WG1560666
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 15:31	WG1560666
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 15:31	WG1560666

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 15:31	WG1560666
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 15:31	WG1560666
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 15:31	WG1560666
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 15:31	WG1560666
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 15:31	WG1560666
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 15:31	WG1560666
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 15:31	WG1560666
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 15:31	WG1560666
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 15:31	WG1560666
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 15:31	WG1560666
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 15:31	WG1560666
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 15:31	WG1560666
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 15:31	WG1560666
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 15:31	WG1560666
Methyl tert-butyl ether	0.00157		0.000101	0.00100	1	10/20/2020 04:27	WG1561731
Naphthalene	U		0.00100	0.00500	1	10/17/2020 15:31	WG1560666
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 15:31	WG1560666
Styrene	U		0.000118	0.00100	1	10/17/2020 15:31	WG1560666
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 15:31	WG1560666
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 15:31	WG1560666
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 15:31	WG1560666
Toluene	U		0.000278	0.00100	1	10/17/2020 15:31	WG1560666
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 15:31	WG1560666
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 15:31	WG1560666
Trichloroethene	U		0.000190	0.00100	1	10/20/2020 04:27	WG1561731
1,2,4-Trimethylbenzene	0.000917	J	0.000322	0.00100	1	10/17/2020 15:31	WG1560666
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 15:31	WG1560666
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 15:31	WG1560666
o-Xylene	U		0.000174	0.00100	1	10/17/2020 15:31	WG1560666
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 15:31	WG1560666
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 15:31	WG1560666
(S) Toluene-d8	*113*			*80.0-120*		*10/17/2020 15:31*	WG1560666
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2020 04:27*	WG1561731
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*10/17/2020 15:31*	WG1560666
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*10/20/2020 04:27*	WG1561731
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 15:31*	WG1560666
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/20/2020 04:27*	WG1561731

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.45		0.0247	0.100	1	10/14/2020 00:21	WG1557496
(S) o-Terphenyl	*101*			*31.0-160*		*10/14/2020 00:21*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5330		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:00	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1220		37.9	100	100	10/13/2020 22:07	WG1557661
Fluoride	3.14		0.320	0.750	5	10/13/2020 21:49	WG1557661
Sulfate	2090		59.4	500	100	10/13/2020 22:07	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0401		0.000735	0.00200	1	10/13/2020 16:33	WG1556440
Barium	0.0127	J	0.00778	0.0200	1	10/13/2020 16:33	WG1556440
Calcium	426		0.480	1.00	1	10/13/2020 16:33	WG1556440
Chromium	0.00176	J	0.00149	0.00200	1	10/13/2020 16:33	WG1556440
Iron	3.36		0.0489	0.100	1	10/13/2020 16:33	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 16:33	WG1556440
Manganese	0.682		0.00132	0.00500	1	10/13/2020 16:33	WG1556440
Potassium	25.7		0.534	2.00	1	10/13/2020 16:33	WG1556440
Selenium	0.00228		0.000657	0.00200	1	10/13/2020 16:33	WG1556440
Sodium	975		0.630	2.00	1	10/13/2020 16:33	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.11		0.0314	0.100	1	10/16/2020 11:21	WG1559436
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*10/16/2020 11:21*	WG1559436

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:29	WG1560682
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:29	WG1560682
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:29	WG1560682
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:29	WG1560682
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:29	WG1560682
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:29	WG1560682
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:29	WG1560682
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:29	WG1560682
Carbon tetrachloride	U	J4	0.000128	0.00100	1	10/17/2020 05:29	WG1560682
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:29	WG1560682
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:29	WG1560682
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:29	WG1560682
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:29	WG1560682
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:29	WG1560682
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:29	WG1560682
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:29	WG1560682

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:29	WG1560682
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:29	WG1560682
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:29	WG1560682
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:29	WG1560682
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:29	WG1560682
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:29	WG1560682
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 05:29	WG1560682
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:29	WG1560682
Isopropylbenzene	0.00944		0.000105	0.00100	1	10/17/2020 05:29	WG1560682
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:29	WG1560682
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:29	WG1560682
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:29	WG1560682
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:29	WG1560682
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:29	WG1560682
Methyl tert-butyl ether	0.00743		0.000101	0.00100	1	10/17/2020 05:29	WG1560682
Naphthalene	U		0.00100	0.00500	1	10/18/2020 10:25	WG1561134
n-Propylbenzene	0.000372	J	0.0000993	0.00100	1	10/17/2020 05:29	WG1560682
Styrene	U		0.000118	0.00100	1	10/17/2020 05:29	WG1560682
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:29	WG1560682
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:29	WG1560682
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:29	WG1560682
Toluene	U		0.000278	0.00100	1	10/17/2020 05:29	WG1560682
1,1,1-Trichloroethane	U	J4	0.000149	0.00100	1	10/17/2020 05:29	WG1560682
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:29	WG1560682
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:29	WG1560682
1,2,4-Trimethylbenzene	0.000376	J	0.000322	0.00100	1	10/17/2020 05:29	WG1560682
1,3,5-Trimethylbenzene	0.000320	J	0.000104	0.00100	1	10/17/2020 05:29	WG1560682
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:29	WG1560682
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:29	WG1560682
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:29	WG1560682
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:29	WG1560682
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 05:29*	WG1560682
(S) Toluene-d8	*102*			*80.0-120*		*10/18/2020 10:25*	WG1561134
(S) 4-Bromofluorobenzene	*95.9*			*77.0-126*		*10/17/2020 05:29*	WG1560682
(S) 4-Bromofluorobenzene	*96.5*			*77.0-126*		*10/18/2020 10:25*	WG1561134
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*10/17/2020 05:29*	WG1560682
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/18/2020 10:25*	WG1561134

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	16.4		0.123	0.500	5	10/14/2020 05:45	WG1557496
(S) o-Terphenyl	*107*			*31.0-160*		*10/14/2020 05:45*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5680		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:01	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1520		37.9	100	100	10/13/2020 22:43	WG1557661
Fluoride	7.66		0.640	1.50	10	10/13/2020 22:25	WG1557661
Sulfate	2010		59.4	500	100	10/13/2020 22:43	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.320		0.000735	0.00200	1	10/13/2020 16:36	WG1556440
Barium	0.0146	J	0.00778	0.0200	1	10/13/2020 16:36	WG1556440
Calcium	362		0.480	1.00	1	10/13/2020 16:36	WG1556440
Chromium	0.00240		0.00149	0.00200	1	10/13/2020 16:36	WG1556440
Iron	5.28		0.0489	0.100	1	10/13/2020 16:36	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 16:36	WG1556440
Manganese	0.885		0.00132	0.00500	1	10/13/2020 16:36	WG1556440
Potassium	17.9		0.534	2.00	1	10/13/2020 16:36	WG1556440
Selenium	0.00271		0.000657	0.00200	1	10/13/2020 16:36	WG1556440
Sodium	1470		3.15	10.0	5	10/13/2020 19:02	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.45		0.0314	0.100	1	10/19/2020 17:10	WG1561736
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*10/19/2020 17:10*	WG1561736

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.282	1.25	25	10/17/2020 16:13	WG1560846
Benzene	U		0.00235	0.0250	25	10/17/2020 16:13	WG1560846
Bromodichloromethane	U		0.00340	0.0250	25	10/17/2020 16:13	WG1560846
Bromoform	U		0.00322	0.0250	25	10/17/2020 16:13	WG1560846
Bromomethane	U		0.0151	0.125	25	10/17/2020 16:13	WG1560846
n-Butylbenzene	U		0.00393	0.0250	25	10/17/2020 16:13	WG1560846
sec-Butylbenzene	U		0.00313	0.0250	25	10/17/2020 16:13	WG1560846
Carbon disulfide	U		0.00241	0.0250	25	10/17/2020 16:13	WG1560846
Carbon tetrachloride	U		0.00320	0.0250	25	10/17/2020 16:13	WG1560846
Chlorobenzene	U		0.00290	0.0250	25	10/17/2020 16:13	WG1560846
Chlorodibromomethane	U		0.00350	0.0250	25	10/17/2020 16:13	WG1560846
Chloroethane	U		0.00480	0.125	25	10/17/2020 16:13	WG1560846
Chloroform	U		0.00278	0.125	25	10/17/2020 16:13	WG1560846
Chloromethane	U		0.0240	0.0625	25	10/17/2020 16:13	WG1560846
1,2-Dibromoethane	U		0.00315	0.0250	25	10/17/2020 16:13	WG1560846
1,1-Dichloroethane	U		0.00250	0.0250	25	10/17/2020 16:13	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00205	0.0250	25	10/17/2020 16:13	WG1560846
1,1-Dichloroethene	U		0.00470	0.0250	25	10/17/2020 16:13	WG1560846
cis-1,2-Dichloroethene	U		0.00315	0.0250	25	10/17/2020 16:13	WG1560846
trans-1,2-Dichloroethene	U		0.00373	0.0250	25	10/17/2020 16:13	WG1560846
1,2-Dichloropropane	U		0.00373	0.0250	25	10/17/2020 16:13	WG1560846
cis-1,3-Dichloropropene	U		0.00278	0.0250	25	10/17/2020 16:13	WG1560846
trans-1,3-Dichloropropene	U		0.00295	0.0250	25	10/17/2020 16:13	WG1560846
Ethylbenzene	U		0.00343	0.0250	25	10/17/2020 16:13	WG1560846
Isopropylbenzene	0.00529	J	0.00263	0.0250	25	10/17/2020 16:13	WG1560846
p-Isopropyltoluene	U		0.00300	0.0250	25	10/17/2020 16:13	WG1560846
2-Butanone (MEK)	U		0.0298	0.250	25	10/17/2020 16:13	WG1560846
2-Hexanone	U		0.0197	0.250	25	10/17/2020 16:13	WG1560846
Methylene Chloride	U		0.0107	0.125	25	10/17/2020 16:13	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.0120	0.250	25	10/17/2020 16:13	WG1560846
Methyl tert-butyl ether	0.00583	J	0.00253	0.0250	25	10/17/2020 16:13	WG1560846
Naphthalene	U		0.0250	0.125	25	10/17/2020 16:13	WG1560846
n-Propylbenzene	U		0.00248	0.0250	25	10/17/2020 16:13	WG1560846
Styrene	U		0.00295	0.0250	25	10/17/2020 16:13	WG1560846
1,1,1,2-Tetrachloroethane	U		0.00368	0.0250	25	10/17/2020 16:13	WG1560846
1,1,2,2-Tetrachloroethane	U		0.00333	0.0250	25	10/17/2020 16:13	WG1560846
Tetrachloroethene	U		0.00750	0.0250	25	10/17/2020 16:13	WG1560846
Toluene	U		0.00695	0.0250	25	10/17/2020 16:13	WG1560846
1,1,1-Trichloroethane	U		0.00373	0.0250	25	10/17/2020 16:13	WG1560846
1,1,2-Trichloroethane	U		0.00395	0.0250	25	10/17/2020 16:13	WG1560846
Trichloroethene	U		0.00475	0.0250	25	10/17/2020 16:13	WG1560846
1,2,4-Trimethylbenzene	U		0.00805	0.0250	25	10/17/2020 16:13	WG1560846
1,3,5-Trimethylbenzene	U		0.00260	0.0250	25	10/17/2020 16:13	WG1560846
Vinyl chloride	U		0.00585	0.0250	25	10/17/2020 16:13	WG1560846
o-Xylene	U		0.00435	0.0250	25	10/17/2020 16:13	WG1560846
m&p-Xylene	U		0.0107	0.0500	25	10/17/2020 16:13	WG1560846
Xylenes, Total	U		0.00435	0.0750	25	10/17/2020 16:13	WG1560846
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 16:13*	WG1560846
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 16:13*	WG1560846
(S) 1,2-Dichloroethane-d4	*89.2*			*70.0-130*		*10/17/2020 16:13*	WG1560846

Sample Narrative:

L1271298-12 WG1560846: Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	15.1		0.247	1.00	10	10/14/2020 06:05	WG1557496
(S) o-Terphenyl	*589*	J1		*31.0-160*		*10/14/2020 06:05*	WG1557496

Sample Narrative:

L1271298-12 WG1557496: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5040		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:04	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	957		37.9	100	100	10/14/2020 01:19	WG1557661
Fluoride	4.48		0.320	0.750	5	10/14/2020 01:01	WG1557661
Sulfate	2380		59.4	500	100	10/14/2020 01:19	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0321		0.000735	0.00200	1	10/13/2020 16:39	WG1556440
Barium	0.0276		0.00778	0.0200	1	10/13/2020 16:39	WG1556440
Calcium	349		0.480	1.00	1	10/13/2020 16:39	WG1556440
Chromium	0.0189		0.00149	0.00200	1	10/13/2020 16:39	WG1556440
Iron	6.79		0.0489	0.100	1	10/13/2020 16:39	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 16:39	WG1556440
Manganese	0.258		0.00132	0.00500	1	10/13/2020 16:39	WG1556440
Potassium	31.8		0.534	2.00	1	10/13/2020 16:39	WG1556440
Selenium	0.00298		0.000657	0.00200	1	10/13/2020 16:39	WG1556440
Sodium	659		0.630	2.00	1	10/13/2020 16:39	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.17		0.0314	0.100	1	10/19/2020 17:32	WG1561736
(S) a,a,a-Trifluorotoluene(FID)	*105*			*78.0-120*		*10/19/2020 17:32*	WG1561736

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 02:39	WG1560699
Benzene	0.000236	J	0.0000941	0.00100	1	10/17/2020 02:39	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 02:39	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 02:39	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 02:39	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 02:39	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 02:39	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 02:39	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 02:39	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 02:39	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 02:39	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 02:39	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 02:39	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 02:39	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 02:39	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 02:39	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 02:39	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 02:39	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 02:39	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 02:39	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 02:39	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 02:39	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 02:39	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 02:39	WG1560699
Isopropylbenzene	0.00263		0.000105	0.00100	1	10/17/2020 02:39	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 02:39	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 02:39	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 02:39	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 02:39	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 02:39	WG1560699
Methyl tert-butyl ether	0.000649	J	0.000101	0.00100	1	10/17/2020 02:39	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 02:39	WG1560699
n-Propylbenzene	0.000165	J	0.0000993	0.00100	1	10/17/2020 02:39	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 02:39	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 02:39	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 02:39	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 02:39	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 02:39	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 02:39	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 02:39	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 02:39	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 02:39	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 02:39	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 02:39	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 02:39	WG1560699
m&p-Xylene	0.00127	J	0.000430	0.00200	1	10/17/2020 02:39	WG1560699
Xylenes, Total	0.00127	J	0.000174	0.00300	1	10/17/2020 02:39	WG1560699
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 02:39*	WG1560699
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 02:39*	WG1560699
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*10/17/2020 02:39*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	10.2		0.247	1.00	10	10/18/2020 16:41	WG1557910
(S) o-Terphenyl	*147*			*31.0-160*		*10/18/2020 16:41*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5250		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.210		0.0500	0.100	1	10/18/2020 02:05	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1250		37.9	100	100	10/14/2020 01:55	WG1557661
Fluoride	1.97		0.320	0.750	5	10/14/2020 01:37	WG1557661
Sulfate	1980		59.4	500	100	10/14/2020 01:55	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0340		0.000735	0.00200	1	10/13/2020 17:06	WG1556440
Barium	0.0142	J	0.00778	0.0200	1	10/13/2020 17:06	WG1556440
Calcium	514		0.480	1.00	1	10/13/2020 17:06	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:06	WG1556440
Iron	0.0772	J	0.0489	0.100	1	10/13/2020 17:06	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:06	WG1556440
Manganese	1.27		0.00132	0.00500	1	10/13/2020 17:06	WG1556440
Potassium	5.94		0.534	2.00	1	10/13/2020 17:06	WG1556440
Selenium	0.00722		0.000657	0.00200	1	10/13/2020 17:06	WG1556440
Sodium	822		0.630	2.00	1	10/13/2020 17:06	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	4.06	B J	1.57	5.00	50	10/15/2020 16:33	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*78.0-120*		*10/15/2020 16:33*	WG1559681

Sample Narrative:

L1271298-14 WG1559681: Lowest possible dilution due to sample foaming.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/18/2020 14:41	WG1561144
Benzene	U		0.0000941	0.00100	1	10/18/2020 14:41	WG1561144
Bromodichloromethane	U		0.000136	0.00100	1	10/18/2020 14:41	WG1561144
Bromoform	U		0.000129	0.00100	1	10/18/2020 14:41	WG1561144
Bromomethane	U		0.000605	0.00500	1	10/18/2020 14:41	WG1561144
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2020 14:41	WG1561144
sec-Butylbenzene	0.000140	J	0.000125	0.00100	1	10/18/2020 14:41	WG1561144
Carbon disulfide	0.000107	J	0.0000962	0.00100	1	10/18/2020 14:41	WG1561144
Carbon tetrachloride	U		0.000128	0.00100	1	10/18/2020 14:41	WG1561144
Chlorobenzene	U		0.000116	0.00100	1	10/18/2020 14:41	WG1561144
Chlorodibromomethane	U		0.000140	0.00100	1	10/18/2020 14:41	WG1561144
Chloroethane	U		0.000192	0.00500	1	10/18/2020 14:41	WG1561144
Chloroform	U		0.000111	0.00500	1	10/18/2020 14:41	WG1561144

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloromethane	U		0.000960	0.00250	1	10/18/2020 14:41	WG1561144
1,2-Dibromoethane	U		0.000126	0.00100	1	10/18/2020 14:41	WG1561144
1,1-Dichloroethane	U		0.000100	0.00100	1	10/18/2020 14:41	WG1561144
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/18/2020 14:41	WG1561144
1,1-Dichloroethene	U		0.000188	0.00100	1	10/18/2020 14:41	WG1561144
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/18/2020 14:41	WG1561144
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/18/2020 14:41	WG1561144
1,2-Dichloropropane	U		0.000149	0.00100	1	10/18/2020 14:41	WG1561144
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/18/2020 14:41	WG1561144
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/18/2020 14:41	WG1561144
Ethylbenzene	U		0.000137	0.00100	1	10/18/2020 14:41	WG1561144
Isopropylbenzene	0.000139	J	0.000105	0.00100	1	10/18/2020 14:41	WG1561144
p-Isopropyltoluene	U		0.000120	0.00100	1	10/18/2020 14:41	WG1561144
2-Butanone (MEK)	U		0.00119	0.0100	1	10/18/2020 14:41	WG1561144
2-Hexanone	U		0.000787	0.0100	1	10/18/2020 14:41	WG1561144
Methylene Chloride	U		0.000430	0.00500	1	10/18/2020 14:41	WG1561144
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/18/2020 14:41	WG1561144
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/18/2020 14:41	WG1561144
Naphthalene	U		0.00100	0.00500	1	10/18/2020 14:41	WG1561144
n-Propylbenzene	U		0.0000993	0.00100	1	10/18/2020 14:41	WG1561144
Styrene	U		0.000118	0.00100	1	10/18/2020 14:41	WG1561144
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/18/2020 14:41	WG1561144
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/18/2020 14:41	WG1561144
Tetrachloroethene	U		0.000300	0.00100	1	10/18/2020 14:41	WG1561144
Toluene	U		0.000278	0.00100	1	10/18/2020 14:41	WG1561144
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/18/2020 14:41	WG1561144
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/18/2020 14:41	WG1561144
Trichloroethene	0.000491	J	0.000190	0.00100	1	10/18/2020 14:41	WG1561144
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2020 14:41	WG1561144
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2020 14:41	WG1561144
Vinyl chloride	U		0.000234	0.00100	1	10/18/2020 14:41	WG1561144
o-Xylene	U		0.000174	0.00100	1	10/18/2020 14:41	WG1561144
m&p-Xylene	U		0.000430	0.00200	1	10/18/2020 14:41	WG1561144
Xylenes, Total	U		0.000174	0.00300	1	10/18/2020 14:41	WG1561144
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2020 14:41*	WG1561144
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/18/2020 14:41*	WG1561144
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*10/18/2020 14:41*	WG1561144

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.84		0.0247	0.100	1	10/15/2020 05:01	WG1557910
(S) o-Terphenyl	*107*			*31.0-160*		*10/15/2020 05:01*	WG1557910

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00645		0.000735	0.00200	1	10/13/2020 17:09	WG1556440
Barium	0.0106	J	0.00778	0.0200	1	10/13/2020 17:09	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:09	WG1556440
Iron	U		0.0489	0.100	1	10/13/2020 17:09	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:09	WG1556440
Manganese	0.898		0.00132	0.00500	1	10/13/2020 17:09	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 17:09	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0806	B J	0.0314	0.100	1	10/15/2020 16:54	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*96.2*			*78.0-120*		*10/15/2020 16:54*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:50	WG1560682
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:50	WG1560682
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:50	WG1560682
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:50	WG1560682
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:50	WG1560682
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:50	WG1560682
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:50	WG1560682
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:50	WG1560682
Carbon tetrachloride	U	J4	0.000128	0.00100	1	10/17/2020 05:50	WG1560682
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:50	WG1560682
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:50	WG1560682
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:50	WG1560682
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:50	WG1560682
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:50	WG1560682
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:50	WG1560682
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:50	WG1560682
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:50	WG1560682
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:50	WG1560682
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:50	WG1560682
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:50	WG1560682
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:50	WG1560682
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:50	WG1560682
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 05:50	WG1560682
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:50	WG1560682
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 05:50	WG1560682
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:50	WG1560682
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:50	WG1560682
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:50	WG1560682
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:50	WG1560682
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:50	WG1560682
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 05:50	WG1560682
Naphthalene	U		0.00100	0.00500	1	10/18/2020 10:45	WG1561134
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 05:50	WG1560682
Styrene	U		0.000118	0.00100	1	10/17/2020 05:50	WG1560682
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:50	WG1560682
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:50	WG1560682
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:50	WG1560682

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	10/17/2020 05:50	WG1560682
1,1,1-Trichloroethane	U	J4	0.000149	0.00100	1	10/17/2020 05:50	WG1560682
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:50	WG1560682
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:50	WG1560682
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:50	WG1560682
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:50	WG1560682
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:50	WG1560682
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:50	WG1560682
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:50	WG1560682
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:50	WG1560682
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 05:50*	WG1560682
(S) Toluene-d8	*99.9*			*80.0-120*		*10/18/2020 10:45*	WG1561134
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 05:50*	WG1560682
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/18/2020 10:45*	WG1561134
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*		*10/17/2020 05:50*	WG1560682
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*10/18/2020 10:45*	WG1561134

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.405		0.0247	0.100	1	10/14/2020 01:02	WG1557496
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/14/2020 01:02*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7820		14.1	50.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0711	J	0.0500	0.100	1	10/18/2020 02:24	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2770		37.9	100	100	10/14/2020 02:31	WG1557661
Fluoride	0.821		0.0640	0.150	1	10/14/2020 02:13	WG1557661
Sulfate	2450		59.4	500	100	10/14/2020 02:31	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0309		0.000735	0.00200	1	10/13/2020 17:13	WG1556440
Barium	0.0163	J	0.00778	0.0200	1	10/13/2020 17:13	WG1556440
Calcium	458		0.480	1.00	1	10/13/2020 17:13	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:13	WG1556440
Iron	3.96		0.0489	0.100	1	10/13/2020 17:13	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:13	WG1556440
Manganese	3.57		0.00132	0.00500	1	10/13/2020 17:13	WG1556440
Potassium	3.75		0.534	2.00	1	10/13/2020 17:13	WG1556440
Selenium	0.00147	J	0.000657	0.00200	1	10/13/2020 17:13	WG1556440
Sodium	1920		3.15	10.0	5	10/13/2020 19:32	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.68		0.0314	0.100	1	10/15/2020 17:14	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*78.0-120*		*10/15/2020 17:14*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 10:02	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 10:02	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 10:02	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 10:02	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 10:02	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 10:02	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 10:02	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 10:02	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 10:02	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 10:02	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 10:02	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 10:02	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 10:02	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 10:02	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 10:02	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 10:02	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 10:02	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 10:02	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 10:02	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 10:02	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 10:02	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 10:02	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 10:02	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 10:02	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 10:02	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 10:02	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 10:02	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 10:02	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 10:02	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 10:02	WG1560846
Methyl tert-butyl ether	0.00286		0.000101	0.00100	1	10/17/2020 10:02	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 10:02	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 10:02	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 10:02	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 10:02	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 10:02	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 10:02	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 10:02	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 10:02	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 10:02	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 10:02	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 10:02	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 10:02	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 10:02	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 10:02	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 10:02	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 10:02	WG1560846
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 10:02*	WG1560846
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/17/2020 10:02*	WG1560846
(S) 1,2-Dichloroethane-d4	*90.3*			*70.0-130*		*10/17/2020 10:02*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.45		0.0247	0.100	1	10/14/2020 01:22	WG1557496
(S) o-Terphenyl	*104*			*31.0-160*		*10/14/2020 01:22*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5080		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:25	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1250		37.9	100	100	10/14/2020 03:07	WG1557661
Fluoride	0.903		0.0640	0.150	1	10/14/2020 02:49	WG1557661
Sulfate	1710		59.4	500	100	10/14/2020 03:07	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0149		0.000735	0.00200	1	10/13/2020 17:16	WG1556440
Barium	0.0129	J	0.00778	0.0200	1	10/13/2020 17:16	WG1556440
Calcium	435		0.480	1.00	1	10/13/2020 17:16	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:16	WG1556440
Iron	0.208		0.0489	0.100	1	10/13/2020 17:16	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:16	WG1556440
Manganese	2.40		0.00132	0.00500	1	10/13/2020 17:16	WG1556440
Potassium	3.30		0.534	2.00	1	10/13/2020 17:16	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 17:16	WG1556440
Sodium	949		0.630	2.00	1	10/13/2020 17:16	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.640		0.0314	0.100	1	10/15/2020 17:35	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*78.0-120*		*10/15/2020 17:35*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 10:22	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 10:22	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 10:22	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 10:22	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 10:22	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 10:22	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 10:22	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 10:22	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 10:22	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 10:22	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 10:22	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 10:22	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 10:22	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 10:22	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 10:22	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 10:22	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 10:22	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 10:22	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 10:22	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 10:22	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 10:22	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 10:22	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 10:22	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 10:22	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 10:22	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 10:22	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 10:22	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 10:22	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 10:22	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 10:22	WG1560846
Methyl tert-butyl ether	0.00136		0.000101	0.00100	1	10/17/2020 10:22	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 10:22	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 10:22	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 10:22	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 10:22	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 10:22	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 10:22	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 10:22	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 10:22	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 10:22	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 10:22	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 10:22	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 10:22	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 10:22	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 10:22	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 10:22	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 10:22	WG1560846
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 10:22*	WG1560846
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 10:22*	WG1560846
(S) 1,2-Dichloroethane-d4	*90.5*			*70.0-130*		*10/17/2020 10:22*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.76		0.0247	0.100	1	10/14/2020 01:42	WG1557496
(S) o-Terphenyl	*96.3*			*31.0-160*		*10/14/2020 01:42*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5460		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:26	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1390		37.9	100	100	10/14/2020 04:54	WG1557661
Fluoride	1.07		0.0640	0.150	1	10/14/2020 03:24	WG1557661
Sulfate	1920		59.4	500	100	10/14/2020 04:54	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0195		0.000735	0.00200	1	10/13/2020 17:19	WG1556440
Barium	0.0317		0.00778	0.0200	1	10/13/2020 17:19	WG1556440
Calcium	524		0.480	1.00	1	10/13/2020 17:19	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:19	WG1556440
Iron	0.0586	J	0.0489	0.100	1	10/13/2020 17:19	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:19	WG1556440
Manganese	3.23		0.00132	0.00500	1	10/13/2020 17:19	WG1556440
Potassium	3.55		0.534	2.00	1	10/13/2020 17:19	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 17:19	WG1556440
Sodium	1100		3.15	10.0	5	10/13/2020 19:35	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.30		0.0314	0.100	1	10/15/2020 17:56	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*10/15/2020 17:56*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 10:43	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 10:43	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 10:43	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 10:43	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 10:43	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 10:43	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 10:43	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 10:43	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 10:43	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 10:43	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 10:43	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 10:43	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 10:43	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 10:43	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 10:43	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 10:43	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 10:43	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 10:43	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 10:43	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 10:43	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 10:43	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 10:43	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 10:43	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 10:43	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 10:43	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 10:43	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 10:43	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 10:43	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 10:43	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 10:43	WG1560846
Methyl tert-butyl ether	0.00174		0.000101	0.00100	1	10/17/2020 10:43	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 10:43	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 10:43	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 10:43	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 10:43	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 10:43	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 10:43	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 10:43	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 10:43	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 10:43	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 10:43	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 10:43	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 10:43	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 10:43	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 10:43	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 10:43	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 10:43	WG1560846
(S) Toluene-d8	*105*			*80.0-120*		*10/17/2020 10:43*	WG1560846
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 10:43*	WG1560846
(S) 1,2-Dichloroethane-d4	*89.8*			*70.0-130*		*10/17/2020 10:43*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.29		0.0247	0.100	1	10/14/2020 02:02	WG1557496
(S) o-Terphenyl	*101*			*31.0-160*		*10/14/2020 02:02*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5000		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:28	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1350		37.9	100	100	10/14/2020 05:48	WG1557661
Fluoride	2.31		0.0640	0.150	1	10/14/2020 05:30	WG1557661
Sulfate	1640		59.4	500	100	10/14/2020 05:48	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.114		0.000735	0.00200	1	10/13/2020 17:22	WG1556440
Barium	0.0133	J	0.00778	0.0200	1	10/13/2020 17:22	WG1556440
Calcium	415		0.480	1.00	1	10/13/2020 17:22	WG1556440
Chromium	0.00183	J	0.00149	0.00200	1	10/13/2020 17:22	WG1556440
Iron	1.73		0.0489	0.100	1	10/13/2020 17:22	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:22	WG1556440
Manganese	1.74		0.00132	0.00500	1	10/13/2020 17:22	WG1556440
Potassium	5.63		0.534	2.00	1	10/13/2020 17:22	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 17:22	WG1556440
Sodium	921		0.630	2.00	1	10/13/2020 17:22	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.586		0.0314	0.100	1	10/15/2020 18:16	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*		*10/15/2020 18:16*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 11:04	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:04	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:04	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:04	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:04	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:04	WG1560846
sec-Butylbenzene	0.000339	J	0.000125	0.00100	1	10/17/2020 11:04	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:04	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:04	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:04	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:04	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:04	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:04	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:04	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:04	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:04	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:04	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:04	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:04	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:04	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:04	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:04	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:04	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:04	WG1560846
Isopropylbenzene	0.00191		0.000105	0.00100	1	10/17/2020 11:04	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:04	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:04	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:04	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:04	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:04	WG1560846
Methyl tert-butyl ether	0.000244	J	0.000101	0.00100	1	10/17/2020 11:04	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:04	WG1560846
n-Propylbenzene	0.000126	J	0.0000993	0.00100	1	10/17/2020 11:04	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 11:04	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:04	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:04	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:04	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 11:04	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:04	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:04	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 11:04	WG1560846
1,2,4-Trimethylbenzene	0.000437	J	0.000322	0.00100	1	10/17/2020 11:04	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:04	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:04	WG1560846
o-Xylene	0.000202	J	0.000174	0.00100	1	10/17/2020 11:04	WG1560846
m&p-Xylene	0.00214		0.000430	0.00200	1	10/17/2020 11:04	WG1560846
Xylenes, Total	0.00234	J	0.000174	0.00300	1	10/17/2020 11:04	WG1560846
(S) Toluene-d8	*109*			*80.0-120*		*10/17/2020 11:04*	WG1560846
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/17/2020 11:04*	WG1560846
(S) 1,2-Dichloroethane-d4	*89.1*			*70.0-130*		*10/17/2020 11:04*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.93		0.0247	0.100	1	10/14/2020 02:24	WG1557496
(S) o-Terphenyl	*113*			*31.0-160*		*10/14/2020 02:24*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	9910		18.8	66.7	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/18/2020 02:29	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2110		37.9	100	100	10/14/2020 06:24	WG1557661
Fluoride	3.84		0.0640	0.150	1	10/14/2020 06:06	WG1557661
Sulfate	4220		59.4	500	100	10/14/2020 06:24	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.202		0.000735	0.00200	1	10/13/2020 17:25	WG1556440
Barium	0.0160	J	0.00778	0.0200	1	10/13/2020 17:25	WG1556440
Calcium	374		0.480	1.00	1	10/13/2020 17:25	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 17:25	WG1556440
Iron	5.02		0.0489	0.100	1	10/13/2020 17:25	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:25	WG1556440
Manganese	0.848		0.00132	0.00500	1	10/13/2020 17:25	WG1556440
Potassium	8.27		0.534	2.00	1	10/13/2020 17:25	WG1556440
Selenium	0.000974	J	0.000657	0.00200	1	10/13/2020 17:25	WG1556440
Sodium	2280		3.15	10.0	5	10/13/2020 19:39	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.75		0.0314	0.100	1	10/15/2020 18:37	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*78.0-120*		*10/15/2020 18:37*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 11:25	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:25	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:25	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:25	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:25	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:25	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 11:25	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:25	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:25	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:25	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:25	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:25	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:25	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:25	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:25	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:25	WG1560846

MW-3A
Collected date/time: 10/06/20 10:50
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:25	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:25	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:25	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:25	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:25	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:25	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:25	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:25	WG1560846
Isopropylbenzene	0.000616	J	0.000105	0.00100	1	10/17/2020 11:25	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:25	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:25	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:25	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:25	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:25	WG1560846
Methyl tert-butyl ether	0.00142		0.000101	0.00100	1	10/17/2020 11:25	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:25	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 11:25	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 11:25	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:25	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:25	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:25	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 11:25	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:25	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:25	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 11:25	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 11:25	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:25	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:25	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 11:25	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 11:25	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 11:25	WG1560846
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 11:25*	WG1560846
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 11:25*	WG1560846
(S) 1,2-Dichloroethane-d4	*92.9*			*70.0-130*		*10/17/2020 11:25*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.72		0.0247	0.100	1	10/14/2020 02:44	WG1557496
(S) o-Terphenyl	*100*			*31.0-160*		*10/14/2020 02:44*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6330		11.3	40.0	1	10/13/2020 11:47	WG1558095

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U	J6	0.0500	0.100	1	10/18/2020 02:31	WG1558998

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1770		37.9	100	100	10/14/2020 07:00	WG1557661
Fluoride	1.42		0.0640	0.150	1	10/14/2020 06:42	WG1557661
Sulfate	2130		59.4	500	100	10/14/2020 07:00	WG1557661

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0373		0.000735	0.00200	1	10/13/2020 17:29	WG1556440
Barium	0.0164	J	0.00778	0.0200	1	10/13/2020 17:29	WG1556440
Calcium	327		0.480	1.00	1	10/13/2020 17:29	WG1556440
Chromium	0.00394		0.00149	0.00200	1	10/13/2020 17:29	WG1556440
Iron	4.89		0.0489	0.100	1	10/13/2020 17:29	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:29	WG1556440
Manganese	0.400		0.00132	0.00500	1	10/13/2020 17:29	WG1556440
Potassium	3.83		0.534	2.00	1	10/13/2020 17:29	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 17:29	WG1556440
Sodium	1470		3.15	10.0	5	10/13/2020 19:42	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.351	B	0.0314	0.100	1	10/15/2020 18:58	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*78.0-120*		*10/15/2020 18:58*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 11:45	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 11:45	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 11:45	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 11:45	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 11:45	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 11:45	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 11:45	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 11:45	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 11:45	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 11:45	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 11:45	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 11:45	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 11:45	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 11:45	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 11:45	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 11:45	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 11:45	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 11:45	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 11:45	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 11:45	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 11:45	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 11:45	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 11:45	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 11:45	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 11:45	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 11:45	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 11:45	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 11:45	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 11:45	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 11:45	WG1560846
Methyl tert-butyl ether	0.000957	J	0.000101	0.00100	1	10/17/2020 11:45	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 11:45	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 11:45	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 11:45	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 11:45	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 11:45	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 11:45	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 11:45	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 11:45	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 11:45	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 11:45	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 11:45	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 11:45	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 11:45	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 11:45	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 11:45	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 11:45	WG1560846
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 11:45*	WG1560846
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 11:45*	WG1560846
(S) 1,2-Dichloroethane-d4	*87.4*			*70.0-130*		*10/17/2020 11:45*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.940		0.0247	0.100	1	10/14/2020 03:04	WG1557496
(S) o-Terphenyl	*103*			*31.0-160*		*10/14/2020 03:04*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	15600		18.8	66.7	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:04	WG1558999

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	10/15/2020 18:19	WG1559473

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	5270		37.9	100	100	10/14/2020 16:07	WG1557662
Fluoride	2.36		0.320	0.750	5	10/14/2020 15:50	WG1557662
Sulfate	4260		59.4	500	100	10/14/2020 16:07	WG1557662

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/11/2020 11:27	WG1556620

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	1.08		0.0254	0.200	1	10/12/2020 05:14	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0669		0.000735	0.00200	1	10/13/2020 17:32	WG1556440
Barium	0.0196	J	0.00778	0.0200	1	10/13/2020 17:32	WG1556440
Cadmium	U		0.000478	0.00100	1	10/13/2020 17:32	WG1556440
Calcium	758		0.480	1.00	1	10/13/2020 17:32	WG1556440
Chromium	0.00203		0.00149	0.00200	1	10/13/2020 17:32	WG1556440
Cobalt	0.00192	J	0.000477	0.00200	1	10/13/2020 17:32	WG1556440
Iron	5.36		0.0489	0.100	1	10/13/2020 17:32	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:32	WG1556440
Manganese	2.42		0.00132	0.00500	1	10/13/2020 17:32	WG1556440
Nickel	0.0384		0.000952	0.00200	1	10/13/2020 17:32	WG1556440
Potassium	10.8		0.534	2.00	1	10/13/2020 17:32	WG1556440
Selenium	0.00156	J	0.000657	0.00200	1	10/13/2020 17:32	WG1556440
Sodium	3710		3.15	10.0	5	10/13/2020 19:45	WG1556440
Uranium	U		0.00754	0.0200	1	10/13/2020 17:32	WG1556440
Vanadium	0.00105	J	0.000986	0.00500	1	10/13/2020 17:32	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	0.644		0.0314	0.100	1	10/15/2020 19:18	WG1559681

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*78.0-120*		*10/15/2020 19:18*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:06	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:06	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:06	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:06	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:06	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:06	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 12:06	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:06	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:06	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:06	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:06	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:06	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:06	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:06	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:06	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:06	WG1560846
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:06	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:06	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:06	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:06	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:06	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:06	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:06	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:06	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 12:06	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:06	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:06	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:06	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:06	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:06	WG1560846
Methyl tert-butyl ether	0.00342		0.000101	0.00100	1	10/17/2020 12:06	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:06	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:06	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 12:06	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:06	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:06	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:06	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 12:06	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:06	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:06	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 12:06	WG1560846
1,2,4-Trimethylbenzene	0.000474	J	0.000322	0.00100	1	10/17/2020 12:06	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:06	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:06	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:06	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:06	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:06	WG1560846
(S) Toluene-d8	*107*			*80.0-120*		*10/17/2020 12:06*	WG1560846
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 12:06*	WG1560846
(S) 1,2-Dichloroethane-d4	*87.8*			*70.0-130*		*10/17/2020 12:06*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.17		0.0247	0.100	1	10/14/2020 03:24	WG1557496
(S) o-Terphenyl	*95.8*			*31.0-160*		*10/14/2020 03:24*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5560		11.3	40.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0603	J	0.0500	0.100	1	10/16/2020 20:06	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1070		37.9	100	100	10/14/2020 16:43	WG1557662
Fluoride	2.78		0.320	0.750	5	10/14/2020 16:25	WG1557662
Sulfate	2020		59.4	500	100	10/14/2020 16:43	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00318		0.000735	0.00200	1	10/13/2020 17:35	WG1556440
Barium	0.0176	J	0.00778	0.0200	1	10/13/2020 17:35	WG1556440
Calcium	500		0.480	1.00	1	10/13/2020 17:35	WG1556440
Chromium	0.00201		0.00149	0.00200	1	10/13/2020 17:35	WG1556440
Iron	0.435		0.0489	0.100	1	10/13/2020 17:35	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 17:35	WG1556440
Manganese	1.03		0.00132	0.00500	1	10/13/2020 17:35	WG1556440
Potassium	3.50		0.534	2.00	1	10/13/2020 17:35	WG1556440
Selenium	0.000844	J	0.000657	0.00200	1	10/13/2020 17:35	WG1556440
Sodium	1070		3.15	10.0	5	10/13/2020 19:48	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0461	B J	0.0314	0.100	1	10/15/2020 19:39	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*78.0-120*		*10/15/2020 19:39*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 03:00	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 03:00	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 03:00	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 03:00	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 03:00	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 03:00	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 03:00	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 03:00	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 03:00	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 03:00	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 03:00	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 03:00	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 03:00	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 03:00	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 03:00	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 03:00	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 03:00	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 03:00	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 03:00	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 03:00	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 03:00	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 03:00	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 03:00	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 03:00	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 03:00	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 03:00	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 03:00	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 03:00	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 03:00	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 03:00	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 03:00	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 03:00	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 03:00	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 03:00	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 03:00	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 03:00	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 03:00	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 03:00	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 03:00	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 03:00	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 03:00	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 03:00	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 03:00	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 03:00	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 03:00	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 03:00	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 03:00	WG1560699
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 03:00*	WG1560699
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*		*10/17/2020 03:00*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*10/17/2020 03:00*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.117		0.0247	0.100	1	10/17/2020 22:33	WG1557910
(S) o-Terphenyl	*87.9*			*31.0-160*		*10/17/2020 22:33*	WG1557910

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00376		0.000735	0.00200	1	10/13/2020 18:17	WG1556440
Barium	0.0224		0.00778	0.0200	1	10/13/2020 18:17	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 18:17	WG1556440
Iron	4.39		0.0489	0.100	1	10/13/2020 18:17	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 18:17	WG1556440
Manganese	1.16		0.00132	0.00500	1	10/13/2020 18:17	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 18:17	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0374	B J	0.0314	0.100	1	10/15/2020 19:59	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*93.6*			*78.0-120*		*10/15/2020 19:59*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 03:20	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 03:20	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 03:20	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 03:20	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 03:20	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 03:20	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 03:20	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 03:20	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 03:20	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 03:20	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 03:20	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 03:20	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 03:20	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 03:20	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 03:20	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 03:20	WG1560699
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 03:20	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 03:20	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 03:20	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 03:20	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 03:20	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 03:20	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 03:20	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 03:20	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 03:20	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 03:20	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 03:20	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 03:20	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 03:20	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 03:20	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 03:20	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 03:20	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 03:20	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 03:20	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 03:20	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 03:20	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 03:20	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	10/17/2020 03:20	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 03:20	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 03:20	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 03:20	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 03:20	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 03:20	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 03:20	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 03:20	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 03:20	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 03:20	WG1560699
(S) Toluene-d8	*99.2*			*80.0-120*		*10/17/2020 03:20*	WG1560699
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*		*10/17/2020 03:20*	WG1560699
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*10/17/2020 03:20*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0650	J	0.0247	0.100	1	10/15/2020 05:41	WG1557910
(S) o-Terphenyl	*80.0*			*31.0-160*		*10/15/2020 05:41*	WG1557910

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000998	J	0.000735	0.00200	1	10/13/2020 18:20	WG1556440
Barium	0.0185	J	0.00778	0.0200	1	10/13/2020 18:20	WG1556440
Chromium	0.00151	J	0.00149	0.00200	1	10/13/2020 18:20	WG1556440
Iron	0.317		0.0489	0.100	1	10/13/2020 18:20	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 18:20	WG1556440
Manganese	0.199		0.00132	0.00500	1	10/13/2020 18:20	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 18:20	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0381	B J	0.0314	0.100	1	10/15/2020 20:20	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*		*10/15/2020 20:20*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:26	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:26	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:26	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:26	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:26	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:26	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 12:26	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:26	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:26	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:26	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:26	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:26	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:26	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:26	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:26	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:26	WG1560846
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:26	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:26	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:26	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:26	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:26	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:26	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:26	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:26	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 12:26	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:26	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:26	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:26	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:26	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:26	WG1560846
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 12:26	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:26	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:26	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 12:26	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:26	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:26	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:26	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	10/17/2020 12:26	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:26	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:26	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 12:26	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 12:26	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:26	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:26	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:26	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:26	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:26	WG1560846
(S) Toluene-d8	*107*			*80.0-120*		*10/17/2020 12:26*	WG1560846
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*		*10/17/2020 12:26*	WG1560846
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*		*10/17/2020 12:26*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0499	J	0.0247	0.100	1	10/14/2020 03:44	WG1557496
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/14/2020 03:44*	WG1557496

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00221		0.000735	0.00200	1	10/13/2020 18:23	WG1556440
Barium	0.0245		0.00778	0.0200	1	10/13/2020 18:23	WG1556440
Chromium	U		0.00149	0.00200	1	10/13/2020 18:23	WG1556440
Iron	1.95		0.0489	0.100	1	10/13/2020 18:23	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 18:23	WG1556440
Manganese	0.218		0.00132	0.00500	1	10/13/2020 18:23	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 18:23	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0326	B J	0.0314	0.100	1	10/15/2020 20:41	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*78.0-120*		*10/15/2020 20:41*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 12:47	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 12:47	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 12:47	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 12:47	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 12:47	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 12:47	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 12:47	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 12:47	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 12:47	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 12:47	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 12:47	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 12:47	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 12:47	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 12:47	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 12:47	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 12:47	WG1560846
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 12:47	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 12:47	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 12:47	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 12:47	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 12:47	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 12:47	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 12:47	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 12:47	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 12:47	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 12:47	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 12:47	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 12:47	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 12:47	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 12:47	WG1560846
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 12:47	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 12:47	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 12:47	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 12:47	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 12:47	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 12:47	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 12:47	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	10/17/2020 12:47	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 12:47	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 12:47	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 12:47	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 12:47	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 12:47	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 12:47	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 12:47	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 12:47	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 12:47	WG1560846
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 12:47*	WG1560846
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 12:47*	WG1560846
(S) 1,2-Dichloroethane-d4	*89.2*			*70.0-130*		*10/17/2020 12:47*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0404	J	0.0247	0.100	1	10/14/2020 04:04	WG1557496
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/14/2020 04:04*	WG1557496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	20200		141	500	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:07	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	8020		37.9	100	100	10/14/2020 17:19	WG1557662
Fluoride	0.454		0.0640	0.150	1	10/14/2020 17:01	WG1557662
Sulfate	2720		59.4	500	100	10/14/2020 17:19	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Calcium	1180		4.80	10.0	10	10/13/2020 18:43	WG1556440
Potassium	20.2		0.534	2.00	1	10/13/2020 18:26	WG1556440
Sodium	5080		6.30	20.0	10	10/13/2020 18:43	WG1556440

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	12100		18.8	66.7	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:09	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4120		37.9	100	100	10/14/2020 17:55	WG1557662
Fluoride	0.702		0.0640	0.150	1	10/14/2020 17:37	WG1557662
Sulfate	2690		59.4	500	100	10/14/2020 17:55	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0142		0.000735	0.00200	1	10/13/2020 18:30	WG1556440
Barium	0.0266		0.00778	0.0200	1	10/13/2020 18:30	WG1556440
Calcium	850		0.480	1.00	1	10/13/2020 18:30	WG1556440
Chromium	0.00194	J	0.00149	0.00200	1	10/13/2020 18:30	WG1556440
Iron	7.26		0.0489	0.100	1	10/13/2020 18:30	WG1556440
Lead	U		0.00249	0.00500	1	10/13/2020 18:30	WG1556440
Manganese	0.332		0.00132	0.00500	1	10/13/2020 18:30	WG1556440
Potassium	35.8		0.534	2.00	1	10/13/2020 18:30	WG1556440
Selenium	U		0.000657	0.00200	1	10/13/2020 18:30	WG1556440
Sodium	3010		3.15	10.0	5	10/13/2020 18:47	WG1556440

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.724		0.0314	0.100	1	10/15/2020 21:01	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*94.9*			*78.0-120*		*10/15/2020 21:01*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 13:08	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 13:08	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 13:08	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 13:08	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 13:08	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 13:08	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 13:08	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 13:08	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 13:08	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 13:08	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 13:08	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 13:08	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 13:08	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 13:08	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 13:08	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 13:08	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 13:08	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 13:08	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 13:08	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 13:08	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 13:08	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 13:08	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 13:08	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 13:08	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 13:08	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 13:08	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 13:08	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 13:08	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 13:08	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 13:08	WG1560846
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 13:08	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 13:08	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 13:08	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 13:08	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 13:08	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 13:08	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 13:08	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 13:08	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 13:08	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 13:08	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 13:08	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 13:08	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 13:08	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 13:08	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 13:08	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 13:08	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 13:08	WG1560846
(S) Toluene-d8	*107*			*80.0-120*		*10/17/2020 13:08*	WG1560846
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 13:08*	WG1560846
(S) 1,2-Dichloroethane-d4	*86.8*			*70.0-130*		*10/17/2020 13:08*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.917		0.0247	0.100	1	10/16/2020 03:27	WG1557497
(S) o-Terphenyl	*90.5*			*31.0-160*		*10/16/2020 03:27*	WG1557497

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00783		0.000735	0.00200	1	10/14/2020 01:22	WG1556442
Barium	0.0169	J	0.00778	0.0200	1	10/14/2020 01:22	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:22	WG1556442
Iron	0.925		0.0489	0.100	1	10/14/2020 01:22	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:22	WG1556442
Manganese	1.56	V	0.00132	0.00500	1	10/14/2020 01:22	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 01:22	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0469	B J	0.0314	0.100	1	10/15/2020 21:22	WG1559681
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*78.0-120*		*10/15/2020 21:22*	WG1559681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 13:28	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 13:28	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 13:28	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 13:28	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 13:28	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 13:28	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 13:28	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 13:28	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 13:28	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 13:28	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 13:28	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 13:28	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 13:28	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 13:28	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 13:28	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 13:28	WG1560846
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 13:28	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 13:28	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 13:28	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 13:28	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 13:28	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 13:28	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 13:28	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 13:28	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 13:28	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 13:28	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 13:28	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 13:28	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 13:28	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 13:28	WG1560846
Methyl tert-butyl ether	0.000777	J	0.000101	0.00100	1	10/17/2020 13:28	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 13:28	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 13:28	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 13:28	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 13:28	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 13:28	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 13:28	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Toluene	U		0.000278	0.00100	1	10/17/2020 13:28	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 13:28	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 13:28	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 13:28	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 13:28	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 13:28	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 13:28	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 13:28	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 13:28	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 13:28	WG1560846
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 13:28*	WG1560846
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 13:28*	WG1560846
(S) 1,2-Dichloroethane-d4	*87.6*			*70.0-130*		*10/17/2020 13:28*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.270	B	0.0247	0.100	1	10/16/2020 03:47	WG1557497
(S) o-Terphenyl	*82.1*			*31.0-160*		*10/16/2020 03:47*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	16800		28.2	100	1	10/13/2020 23:02	WG1558083

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:10	WG1558999

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 04:47	WG1560164

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4600		37.9	100	100	10/14/2020 19:07	WG1557662
Fluoride	2.72		0.320	0.750	5	10/14/2020 18:50	WG1557662
Sulfate	4820		59.4	500	100	10/14/2020 19:07	WG1557662

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/11/2020 10:36	WG1556620

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	1.98		0.0254	0.200	1	10/12/2020 05:17	WG1556426

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00468		0.000735	0.00200	1	10/14/2020 01:35	WG1556442
Barium	0.0171	J	0.00778	0.0200	1	10/14/2020 01:35	WG1556442
Cadmium	U		0.000478	0.00100	1	10/14/2020 01:35	WG1556442
Calcium	616		0.480	1.00	1	10/14/2020 01:35	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:35	WG1556442
Cobalt	0.00139	J	0.000477	0.00200	1	10/14/2020 01:35	WG1556442
Iron	0.348		0.0489	0.100	1	10/14/2020 01:35	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:35	WG1556442
Manganese	1.39		0.00132	0.00500	1	10/14/2020 01:35	WG1556442
Nickel	0.00846		0.000952	0.00200	1	10/14/2020 01:35	WG1556442
Potassium	39.3		0.534	2.00	1	10/14/2020 01:35	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 01:35	WG1556442
Sodium	3380		6.30	20.0	10	10/14/2020 23:18	WG1556442
Uranium	0.0226		0.00754	0.0200	1	10/14/2020 01:35	WG1556442
Vanadium	U		0.000986	0.00500	1	10/14/2020 01:35	WG1556442

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 13:49	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 13:49	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 13:49	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 13:49	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 13:49	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 13:49	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 13:49	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 13:49	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 13:49	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 13:49	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 13:49	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 13:49	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 13:49	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 13:49	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 13:49	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 13:49	WG1560846
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 13:49	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 13:49	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 13:49	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 13:49	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 13:49	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 13:49	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 13:49	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 13:49	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 13:49	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 13:49	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 13:49	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 13:49	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 13:49	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 13:49	WG1560846
Methyl tert-butyl ether	0.000678	J	0.000101	0.00100	1	10/17/2020 13:49	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 13:49	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 13:49	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 13:49	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 13:49	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 13:49	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 13:49	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 13:49	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 13:49	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 13:49	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 13:49	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 13:49	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 13:49	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 13:49	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 13:49	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 13:49	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 13:49	WG1560846
(S) Toluene-d8	*111*			*80.0-120*		*10/17/2020 13:49*	WG1560846
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*10/17/2020 13:49*	WG1560846
(S) 1,2-Dichloroethane-d4	*86.1*			*70.0-130*		*10/17/2020 13:49*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.373	B	0.0247	0.100	1	10/16/2020 04:07	WG1557497
(S) o-Terphenyl	*87.9*			*31.0-160*		*10/16/2020 04:07*	WG1557497

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0166		0.000735	0.00200	1	10/14/2020 01:38	WG1556442
Barium	0.0171	J	0.00778	0.0200	1	10/14/2020 01:38	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:38	WG1556442
Iron	4.50		0.0489	0.100	1	10/14/2020 01:38	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:38	WG1556442
Manganese	0.299		0.00132	0.00500	1	10/14/2020 01:38	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 01:38	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.28		0.0314	0.100	1	10/16/2020 01:17	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*10/16/2020 01:17*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/18/2020 06:28	WG1560896
Benzene	U		0.0000941	0.00100	1	10/18/2020 15:47	WG1561236
Bromodichloromethane	U		0.000136	0.00100	1	10/18/2020 06:28	WG1560896
Bromoform	U		0.000129	0.00100	1	10/18/2020 06:28	WG1560896
Bromomethane	U		0.000605	0.00500	1	10/18/2020 06:28	WG1560896
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2020 06:28	WG1560896
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2020 06:28	WG1560896
Carbon disulfide	0.000277	B J	0.0000962	0.00100	1	10/18/2020 06:28	WG1560896
Carbon tetrachloride	U		0.000128	0.00100	1	10/18/2020 06:28	WG1560896
Chlorobenzene	U		0.000116	0.00100	1	10/18/2020 06:28	WG1560896
Chlorodibromomethane	U		0.000140	0.00100	1	10/18/2020 06:28	WG1560896
Chloroethane	U		0.000192	0.00500	1	10/18/2020 06:28	WG1560896
Chloroform	U		0.000111	0.00500	1	10/18/2020 06:28	WG1560896
Chloromethane	U		0.000960	0.00250	1	10/18/2020 06:28	WG1560896
1,2-Dibromoethane	U		0.000126	0.00100	1	10/18/2020 06:28	WG1560896
1,1-Dichloroethane	U		0.000100	0.00100	1	10/18/2020 06:28	WG1560896
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/18/2020 06:28	WG1560896
1,1-Dichloroethene	U		0.000188	0.00100	1	10/18/2020 06:28	WG1560896
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/18/2020 06:28	WG1560896
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/18/2020 06:28	WG1560896
1,2-Dichloropropane	U		0.000149	0.00100	1	10/18/2020 06:28	WG1560896
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/18/2020 06:28	WG1560896
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/18/2020 06:28	WG1560896
Ethylbenzene	U		0.000137	0.00100	1	10/18/2020 06:28	WG1560896
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2020 06:28	WG1560896
p-Isopropyltoluene	U		0.000120	0.00100	1	10/18/2020 06:28	WG1560896
2-Butanone (MEK)	U		0.00119	0.0100	1	10/18/2020 06:28	WG1560896
2-Hexanone	U		0.000787	0.0100	1	10/18/2020 06:28	WG1560896
Methylene Chloride	U		0.000430	0.00500	1	10/18/2020 06:28	WG1560896
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/18/2020 06:28	WG1560896
Methyl tert-butyl ether	0.000124	J	0.000101	0.00100	1	10/18/2020 06:28	WG1560896
Naphthalene	U		0.00100	0.00500	1	10/18/2020 15:47	WG1561236
n-Propylbenzene	0.000146	J	0.0000993	0.00100	1	10/18/2020 06:28	WG1560896
Styrene	U		0.000118	0.00100	1	10/18/2020 06:28	WG1560896
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/18/2020 06:28	WG1560896
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/18/2020 06:28	WG1560896
Tetrachloroethene	U		0.000300	0.00100	1	10/18/2020 06:28	WG1560896

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	1	10/18/2020 06:28	WG1560896
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/18/2020 06:28	WG1560896
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/18/2020 06:28	WG1560896
Trichloroethene	U		0.000190	0.00100	1	10/18/2020 06:28	WG1560896
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2020 06:28	WG1560896
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2020 06:28	WG1560896
Vinyl chloride	U		0.000234	0.00100	1	10/18/2020 06:28	WG1560896
o-Xylene	U		0.000174	0.00100	1	10/18/2020 06:28	WG1560896
m&p-Xylene	U		0.000430	0.00200	1	10/18/2020 06:28	WG1560896
Xylenes, Total	U		0.000174	0.00300	1	10/18/2020 06:28	WG1560896
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2020 06:28*	WG1560896
(S) Toluene-d8	*107*			*80.0-120*		*10/18/2020 15:47*	WG1561236
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2020 06:28*	WG1560896
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*10/18/2020 15:47*	WG1561236
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/18/2020 06:28*	WG1560896
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/18/2020 15:47*	WG1561236

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.805		0.0247	0.100	1	10/16/2020 04:27	WG1557497
(S) o-Terphenyl	*89.5*			*31.0-160*		*10/16/2020 04:27*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	9940		18.8	66.7	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:11	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2490		37.9	100	100	10/14/2020 19:43	WG1557662
Fluoride	1.03		0.0640	0.150	1	10/14/2020 19:25	WG1557662
Sulfate	3030		59.4	500	100	10/14/2020 19:43	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00195	J	0.000735	0.00200	1	10/14/2020 01:41	WG1556442
Barium	0.0214		0.00778	0.0200	1	10/14/2020 01:41	WG1556442
Calcium	758		0.480	1.00	1	10/14/2020 01:41	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:41	WG1556442
Iron	5.78		0.0489	0.100	1	10/14/2020 01:41	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:41	WG1556442
Manganese	0.435		0.00132	0.00500	1	10/14/2020 01:41	WG1556442
Potassium	6.57		0.534	2.00	1	10/14/2020 01:41	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 01:41	WG1556442
Sodium	1840		6.30	20.0	10	10/14/2020 19:01	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 01:39	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*78.0-120*		*10/16/2020 01:39*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:10	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:10	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:10	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:10	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:10	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:10	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:10	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:10	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:10	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:10	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:10	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:10	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:10	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:10	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:10	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:10	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:10	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:10	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:10	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:10	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:10	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:10	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:10	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:10	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:10	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:10	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:10	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:10	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:10	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:10	WG1560846
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 14:10	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:10	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:10	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 14:10	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:10	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:10	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:10	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 14:10	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:10	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:10	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 14:10	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:10	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:10	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:10	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:10	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:10	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:10	WG1560846
(S) Toluene-d8	*106*			*80.0-120*		*10/17/2020 14:10*	WG1560846
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 14:10*	WG1560846
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*10/17/2020 14:10*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0406	B J	0.0247	0.100	1	10/16/2020 04:47	WG1557497
(S) o-Terphenyl	*76.3*			*31.0-160*		*10/16/2020 04:47*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6260		11.3	40.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:13	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1550		37.9	100	100	10/14/2020 20:19	WG1557662
Fluoride	1.29		0.0640	0.150	1	10/14/2020 20:01	WG1557662
Sulfate	1870		59.4	500	100	10/14/2020 20:19	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0240		0.000735	0.00200	1	10/14/2020 01:44	WG1556442
Barium	0.0170	J	0.00778	0.0200	1	10/14/2020 01:44	WG1556442
Calcium	315		0.480	1.00	1	10/14/2020 01:44	WG1556442
Chromium	0.00266		0.00149	0.00200	1	10/14/2020 01:44	WG1556442
Iron	2.97		0.0489	0.100	1	10/14/2020 01:44	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:44	WG1556442
Manganese	0.386		0.00132	0.00500	1	10/14/2020 01:44	WG1556442
Potassium	3.71		0.534	2.00	1	10/14/2020 01:44	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 01:44	WG1556442
Sodium	1550		6.30	20.0	10	10/14/2020 19:05	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.379		0.0314	0.100	1	10/16/2020 02:01	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*78.0-120*		*10/16/2020 02:01*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:31	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:31	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:31	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:31	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:31	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:31	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:31	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:31	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:31	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:31	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:31	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:31	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:31	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:31	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:31	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:31	WG1560846

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:31	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:31	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:31	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:31	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:31	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:31	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:31	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:31	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:31	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:31	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:31	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:31	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:31	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:31	WG1560846
Methyl tert-butyl ether	0.000984	J	0.000101	0.00100	1	10/17/2020 14:31	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:31	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:31	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 14:31	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:31	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:31	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:31	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 14:31	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:31	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:31	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 14:31	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:31	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:31	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:31	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:31	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:31	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:31	WG1560846
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 14:31*	WG1560846
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/17/2020 14:31*	WG1560846
(S) 1,2-Dichloroethane-d4	*84.9*			*70.0-130*		*10/17/2020 14:31*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.886		0.0247	0.100	1	10/16/2020 05:07	WG1557497
(S) o-Terphenyl	*100*			*31.0-160*		*10/16/2020 05:07*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	8210		14.1	50.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:18	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2290		37.9	100	100	10/14/2020 20:55	WG1557662
Fluoride	0.795		0.0640	0.150	1	10/14/2020 20:37	WG1557662
Sulfate	2060		59.4	500	100	10/14/2020 20:55	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0301		0.000735	0.00200	1	10/14/2020 01:54	WG1556442
Barium	0.0165	J	0.00778	0.0200	1	10/14/2020 01:54	WG1556442
Calcium	453		0.480	1.00	1	10/14/2020 01:54	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:54	WG1556442
Iron	4.02		0.0489	0.100	1	10/14/2020 01:54	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:54	WG1556442
Manganese	3.69		0.00132	0.00500	1	10/14/2020 01:54	WG1556442
Potassium	3.71		0.534	2.00	1	10/14/2020 01:54	WG1556442
Selenium	0.00132	J	0.000657	0.00200	1	10/14/2020 01:54	WG1556442
Sodium	2240		6.30	20.0	10	10/14/2020 19:08	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.13		0.0314	0.100	1	10/16/2020 02:23	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*96.0*			*78.0-120*		*10/16/2020 02:23*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 14:52	WG1560846
Benzene	U		0.0000941	0.00100	1	10/17/2020 14:52	WG1560846
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 14:52	WG1560846
Bromoform	U		0.000129	0.00100	1	10/17/2020 14:52	WG1560846
Bromomethane	U		0.000605	0.00500	1	10/17/2020 14:52	WG1560846
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 14:52	WG1560846
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 14:52	WG1560846
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 14:52	WG1560846
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 14:52	WG1560846
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 14:52	WG1560846
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 14:52	WG1560846
Chloroethane	U		0.000192	0.00500	1	10/17/2020 14:52	WG1560846
Chloroform	U		0.000111	0.00500	1	10/17/2020 14:52	WG1560846
Chloromethane	U		0.000960	0.00250	1	10/17/2020 14:52	WG1560846
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 14:52	WG1560846
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 14:52	WG1560846

Received by OCD: 6/23/2021 4:05:29 PM

DUP-LP-02
Collected date/time: 10/06/20 11:00

SAMPLE RESULTS - 34

L1271298

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 14:52	WG1560846
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 14:52	WG1560846
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 14:52	WG1560846
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560846
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560846
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 14:52	WG1560846
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 14:52	WG1560846
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 14:52	WG1560846
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 14:52	WG1560846
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 14:52	WG1560846
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 14:52	WG1560846
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 14:52	WG1560846
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 14:52	WG1560846
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 14:52	WG1560846
Methyl tert-butyl ether	0.00273		0.000101	0.00100	1	10/17/2020 14:52	WG1560846
Naphthalene	U		0.00100	0.00500	1	10/17/2020 14:52	WG1560846
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 14:52	WG1560846
Styrene	U		0.000118	0.00100	1	10/17/2020 14:52	WG1560846
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 14:52	WG1560846
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 14:52	WG1560846
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 14:52	WG1560846
Toluene	U		0.000278	0.00100	1	10/17/2020 14:52	WG1560846
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 14:52	WG1560846
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 14:52	WG1560846
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 14:52	WG1560846
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 14:52	WG1560846
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 14:52	WG1560846
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 14:52	WG1560846
o-Xylene	U		0.000174	0.00100	1	10/17/2020 14:52	WG1560846
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 14:52	WG1560846
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 14:52	WG1560846
(S) Toluene-d8	*104*			*80.0-120*		*10/17/2020 14:52*	WG1560846
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*10/17/2020 14:52*	WG1560846
(S) 1,2-Dichloroethane-d4	*87.1*			*70.0-130*		*10/17/2020 14:52*	WG1560846

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.13		0.0247	0.100	1	10/16/2020 05:28	WG1557497
(S) o-Terphenyl	*83.7*			*31.0-160*		*10/16/2020 05:28*	WG1557497

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5090		11.3	40.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.245	J6	0.0500	0.100	1	10/16/2020 20:19	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	939		37.9	100	100	10/14/2020 21:31	WG1557662
Fluoride	1.69		0.0640	0.150	1	10/14/2020 21:13	WG1557662
Sulfate	1440		59.4	500	100	10/14/2020 21:31	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0343		0.000735	0.00200	1	10/14/2020 01:57	WG1556442
Barium	0.0150	J	0.00778	0.0200	1	10/14/2020 01:57	WG1556442
Calcium	506		0.480	1.00	1	10/14/2020 01:57	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 01:57	WG1556442
Iron	0.0500	J	0.0489	0.100	1	10/14/2020 01:57	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 01:57	WG1556442
Manganese	1.38		0.00132	0.00500	1	10/14/2020 01:57	WG1556442
Potassium	5.85		0.534	2.00	1	10/14/2020 01:57	WG1556442
Selenium	0.00646		0.000657	0.00200	1	10/14/2020 01:57	WG1556442
Sodium	812		0.630	2.00	1	10/14/2020 23:22	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.491		0.0314	0.100	1	10/16/2020 02:45	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*78.0-120*		*10/16/2020 02:45*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 03:40	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 03:40	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 03:40	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 03:40	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 03:40	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 03:40	WG1560699
sec-Butylbenzene	0.000160	J	0.000125	0.00100	1	10/17/2020 03:40	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 03:40	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 03:40	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 03:40	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 03:40	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 03:40	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 03:40	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 03:40	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 03:40	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 03:40	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 03:40	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 03:40	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 03:40	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 03:40	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 03:40	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 03:40	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 03:40	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 03:40	WG1560699
Isopropylbenzene	0.000169	J	0.000105	0.00100	1	10/17/2020 03:40	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 03:40	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 03:40	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 03:40	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 03:40	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 03:40	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 03:40	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 03:40	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 03:40	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 03:40	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 03:40	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 03:40	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 03:40	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 03:40	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 03:40	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 03:40	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 03:40	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 03:40	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 03:40	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 03:40	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 03:40	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 03:40	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 03:40	WG1560699
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 03:40*	WG1560699
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 03:40*	WG1560699
(S) 1,2-Dichloroethane-d4	*92.4*			*70.0-130*		*10/17/2020 03:40*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.08		0.0247	0.100	1	10/15/2020 06:01	WG1557910
(S) o-Terphenyl	*104*			*31.0-160*		*10/15/2020 06:01*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	28.0		2.82	10.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0505	J	0.0500	0.100	1	10/16/2020 20:21	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	5.84		0.379	1.00	1	10/14/2020 22:25	WG1557662
Fluoride	U		0.0640	0.150	1	10/14/2020 22:25	WG1557662
Sulfate	5.05		0.594	5.00	1	10/14/2020 22:25	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/14/2020 02:01	WG1556442
Barium	U		0.00778	0.0200	1	10/14/2020 02:01	WG1556442
Calcium	U		0.480	1.00	1	10/14/2020 02:01	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:01	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:01	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:01	WG1556442
Manganese	U		0.00132	0.00500	1	10/14/2020 02:01	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:01	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:01	WG1556442
Sodium	U		0.630	2.00	1	10/14/2020 23:25	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/15/2020 19:55	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*10/15/2020 19:55*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:09	WG1560682
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:09	WG1560682
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:09	WG1560682
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:09	WG1560682
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:09	WG1560682
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:09	WG1560682
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:09	WG1560682
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:09	WG1560682
Carbon tetrachloride	U	J4	0.000128	0.00100	1	10/17/2020 05:09	WG1560682
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:09	WG1560682
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:09	WG1560682
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:09	WG1560682
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:09	WG1560682
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:09	WG1560682
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:09	WG1560682
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:09	WG1560682

LB-LF-01
Collected date/time: 10/06/20 14:50
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:09	WG1560682
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:09	WG1560682
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:09	WG1560682
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:09	WG1560682
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:09	WG1560682
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:09	WG1560682
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 05:09	WG1560682
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:09	WG1560682
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 05:09	WG1560682
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:09	WG1560682
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:09	WG1560682
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:09	WG1560682
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:09	WG1560682
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:09	WG1560682
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 05:09	WG1560682
Naphthalene	U		0.00100	0.00500	1	10/18/2020 11:05	WG1561134
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 05:09	WG1560682
Styrene	U		0.000118	0.00100	1	10/17/2020 05:09	WG1560682
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:09	WG1560682
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:09	WG1560682
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:09	WG1560682
Toluene	U		0.000278	0.00100	1	10/17/2020 05:09	WG1560682
1,1,1-Trichloroethane	U	J4	0.000149	0.00100	1	10/17/2020 05:09	WG1560682
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:09	WG1560682
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:09	WG1560682
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:09	WG1560682
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:09	WG1560682
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:09	WG1560682
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:09	WG1560682
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:09	WG1560682
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:09	WG1560682
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 05:09*	WG1560682
(S) Toluene-d8	*99.2*			*80.0-120*		*10/18/2020 11:05*	WG1561134
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 05:09*	WG1560682
(S) 4-Bromofluorobenzene	*98.4*			*77.0-126*		*10/18/2020 11:05*	WG1561134
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*		*10/17/2020 05:09*	WG1560682
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/18/2020 11:05*	WG1561134

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0341	B J	0.0247	0.100	1	10/16/2020 05:48	WG1557497
(S) o-Terphenyl	*76.8*			*31.0-160*		*10/16/2020 05:48*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	12.0		2.82	10.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:24	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	2.22		0.379	1.00	1	10/14/2020 23:36	WG1557662
Fluoride	U		0.0640	0.150	1	10/14/2020 23:36	WG1557662
Sulfate	3.21	J	0.594	5.00	1	10/14/2020 23:36	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/14/2020 02:04	WG1556442
Barium	U		0.00778	0.0200	1	10/14/2020 02:04	WG1556442
Calcium	U		0.480	1.00	1	10/14/2020 02:04	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:04	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:04	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:04	WG1556442
Manganese	U		0.00132	0.00500	1	10/14/2020 02:04	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:04	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:04	WG1556442
Sodium	U		0.630	2.00	1	10/14/2020 23:28	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/15/2020 20:17	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/15/2020 20:17*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 18:53	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 18:53	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 18:53	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 18:53	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 18:53	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 18:53	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 18:53	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 18:53	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 18:53	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 18:53	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 18:53	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 18:53	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 18:53	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 18:53	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 18:53	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 18:53	WG1560700

EB-LT-02
Collected date/time: 10/06/20 14:20
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 18:53	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 18:53	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 18:53	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 18:53	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 18:53	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 18:53	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 18:53	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 18:53	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 18:53	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 18:53	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 18:53	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 18:53	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 18:53	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 18:53	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 18:53	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 18:53	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 18:53	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 18:53	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 18:53	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 18:53	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 18:53	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 18:53	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 18:53	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 18:53	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 18:53	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 18:53	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 18:53	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 18:53	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 18:53	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 18:53	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 18:53	WG1560700
(S) Toluene-d8	*101*			*80.0-120*		*10/16/2020 18:53*	WG1560700
(S) 4-Bromofluorobenzene	*94.4*			*77.0-126*		*10/16/2020 18:53*	WG1560700
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*		*10/16/2020 18:53*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0369	B J	0.0247	0.100	1	10/16/2020 06:08	WG1557497
(S) o-Terphenyl	*73.2*			*31.0-160*		*10/16/2020 06:08*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3.00	J	2.82	10.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:25	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.535	J	0.379	1.00	1	10/14/2020 23:54	WG1557662
Fluoride	U		0.0640	0.150	1	10/14/2020 23:54	WG1557662
Sulfate	U		0.594	5.00	1	10/14/2020 23:54	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/14/2020 02:07	WG1556442
Barium	U		0.00778	0.0200	1	10/14/2020 02:07	WG1556442
Calcium	U		0.480	1.00	1	10/14/2020 02:07	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:07	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:07	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:07	WG1556442
Manganese	U		0.00132	0.00500	1	10/14/2020 02:07	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:07	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:07	WG1556442
Sodium	U		0.630	2.00	1	10/14/2020 23:32	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/15/2020 20:39	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*10/15/2020 20:39*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 19:13	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 19:13	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 19:13	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 19:13	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 19:13	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 19:13	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 19:13	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 19:13	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 19:13	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 19:13	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 19:13	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 19:13	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 19:13	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 19:13	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 19:13	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 19:13	WG1560700

LB-LT-03
Collected date/time: 10/06/20 11:10
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 19:13	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 19:13	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 19:13	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 19:13	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 19:13	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 19:13	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 19:13	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 19:13	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 19:13	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 19:13	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 19:13	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 19:13	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 19:13	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 19:13	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 19:13	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 19:13	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 19:13	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 19:13	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 19:13	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 19:13	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 19:13	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 19:13	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 19:13	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 19:13	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 19:13	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 19:13	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 19:13	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 19:13	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 19:13	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 19:13	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 19:13	WG1560700
(S) Toluene-d8	*101*			*80.0-120*		*10/16/2020 19:13*	WG1560700
(S) 4-Bromofluorobenzene	*96.8*			*77.0-126*		*10/16/2020 19:13*	WG1560700
(S) 1,2-Dichloroethane-d4	*95.7*			*70.0-130*		*10/16/2020 19:13*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.367	B	0.0247	0.100	1	10/16/2020 06:28	WG1557497
(S) o-Terphenyl	*81.1*			*31.0-160*		*10/16/2020 06:28*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	11.0		2.82	10.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:27	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.524	J	0.379	1.00	1	10/15/2020 00:12	WG1557662
Fluoride	U		0.0640	0.150	1	10/15/2020 00:12	WG1557662
Sulfate	U		0.594	5.00	1	10/15/2020 00:12	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/14/2020 02:10	WG1556442
Barium	U		0.00778	0.0200	1	10/14/2020 02:10	WG1556442
Calcium	U		0.480	1.00	1	10/14/2020 02:10	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:10	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:10	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:10	WG1556442
Manganese	U		0.00132	0.00500	1	10/14/2020 02:10	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:10	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:10	WG1556442
Sodium	U		0.630	2.00	1	10/14/2020 23:35	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/15/2020 21:01	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/15/2020 21:01*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 19:34	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 19:34	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 19:34	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 19:34	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 19:34	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 19:34	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 19:34	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 19:34	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 19:34	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 19:34	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 19:34	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 19:34	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 19:34	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 19:34	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 19:34	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 19:34	WG1560700

LB-LT-04
Collected date/time: 10/06/20 10:45
L1271298

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 19:34	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 19:34	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 19:34	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 19:34	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 19:34	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 19:34	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 19:34	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 19:34	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 19:34	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 19:34	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 19:34	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 19:34	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 19:34	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 19:34	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 19:34	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 19:34	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 19:34	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 19:34	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 19:34	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 19:34	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 19:34	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 19:34	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 19:34	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 19:34	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 19:34	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 19:34	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 19:34	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 19:34	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 19:34	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 19:34	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 19:34	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 19:34*	WG1560700
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*		*10/16/2020 19:34*	WG1560700
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*10/16/2020 19:34*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0250	B J	0.0247	0.100	1	10/16/2020 06:48	WG1557497
(S) o-Terphenyl	*80.0*			*31.0-160*		*10/16/2020 06:48*	WG1557497

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 18:13	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 18:13	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 18:13	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 18:13	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 18:13	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 18:13	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 18:13	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 18:13	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 18:13	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 18:13	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 18:13	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 18:13	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 18:13	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 18:13	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 18:13	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 18:13	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 18:13	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 18:13	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 18:13	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 18:13	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 18:13	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 18:13	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 18:13	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 18:13	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 18:13	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 18:13	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 18:13	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 18:13	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 18:13	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 18:13	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 18:13	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 18:13	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 18:13	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 18:13	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 18:13	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 18:13	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 18:13	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 18:13	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 18:13	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 18:13	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 18:13	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 18:13	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 18:13	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 18:13	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 18:13	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 18:13	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 18:13	WG1560700
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 18:13*	WG1560700
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*		*10/16/2020 18:13*	WG1560700
(S) 1,2-Dichloroethane-d4	*99.2*			*70.0-130*		*10/16/2020 18:13*	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 18:33	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 18:33	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 18:33	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 18:33	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 18:33	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 18:33	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 18:33	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 18:33	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 18:33	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 18:33	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 18:33	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 18:33	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 18:33	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 18:33	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 18:33	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 18:33	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 18:33	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 18:33	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 18:33	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 18:33	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 18:33	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 18:33	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 18:33	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 18:33	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 18:33	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 18:33	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 18:33	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 18:33	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 18:33	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 18:33	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 18:33	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 18:33	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 18:33	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 18:33	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 18:33	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 18:33	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 18:33	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 18:33	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 18:33	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 18:33	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 18:33	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 18:33	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 18:33	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 18:33	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 18:33	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 18:33	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 18:33	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 18:33*	WG1560700
(S) 4-Bromofluorobenzene	*96.3*			*77.0-126*		*10/16/2020 18:33*	WG1560700
(S) 1,2-Dichloroethane-d4	*96.5*			*70.0-130*		*10/16/2020 18:33*	WG1560700

Method Blank (MB)

(MB) R3581978-1 10/13/20 23:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271239-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271239-01 10/13/20 23:02 • (DUP) R3581978-3 10/13/20 23:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1940	1930	1	0.310		5

L1271812-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1271812-09 10/13/20 23:02 • (DUP) R3581978-4 10/13/20 23:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3560	3610	1	1.45		5

Laboratory Control Sample (LCS)

(LCS) R3581978-2 10/13/20 23:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8870	101	77.4-123	

Method Blank (MB)

(MB) R3581630-1 10/13/20 19:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271301-58 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-58 10/13/20 19:46 • (DUP) R3581630-3 10/13/20 19:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2930	2960	1	0.952		5

L1271301-59 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-59 10/13/20 19:46 • (DUP) R3581630-4 10/13/20 19:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3130	3210	1	2.48		5

Laboratory Control Sample (LCS)

(LCS) R3581630-2 10/13/20 19:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8520	96.8	77.4-123	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3581349-1 10/13/20 11:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271298-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-20 10/13/20 11:47 • (DUP) R3581349-3 10/13/20 11:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	9910	10300	1	3.83		5

L1271298-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-21 10/13/20 11:47 • (DUP) R3581349-4 10/13/20 11:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	6330	6590	1	4.02		5

Laboratory Control Sample (LCS)

(LCS) R3581349-2 10/13/20 11:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8280	94.1	77.4-123	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582665-1 10/18/20 01:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-01 10/18/20 01:42 • (DUP) R3582665-3 10/18/20 01:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271298-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-20 10/18/20 02:29 • (DUP) R3582665-5 10/18/20 02:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582665-2 10/18/20 01:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.34	93.6	90.0-110	

L1271298-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271298-12 10/18/20 02:01 • (MS) R3582665-4 10/18/20 02:03

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.25	90.0	1	90.0-110	

L1271298-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-21 10/18/20 02:31 • (MS) R3582665-6 10/18/20 02:33 • (MSD) R3582665-7 10/18/20 02:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.23	2.21	89.2	88.4	1	90.0-110	J6	J6	0.901	20

Method Blank (MB)

(MB) R3582489-1 10/16/20 20:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271298-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-22 10/16/20 20:04 • (DUP) R3582489-3 10/16/20 20:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271298-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-36 10/16/20 20:21 • (DUP) R3582489-5 10/16/20 20:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0505	0.0526	1	4.07	J	20

Laboratory Control Sample (LCS)

(LCS) R3582489-2 10/16/20 20:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.34	93.6	90.0-110	

L1271298-35 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271298-35 10/16/20 20:19 • (MS) R3582489-4 10/16/20 20:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.245	2.40	86.2	1	90.0-110	J6

L1271301-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-02 10/16/20 20:52 • (MS) R3582489-6 10/16/20 20:53 • (MSD) R3582489-7 10/16/20 20:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	0.250	15.3	17.8	17.4	100	84.0	10	90.0-110		V	2.27	20

Method Blank (MB)

(MB) R3582022-1 10/15/20 17:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1271016-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271016-01 10/15/20 18:05 • (DUP) R3582022-3 10/15/20 18:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

L1271044-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271044-01 10/15/20 18:07 • (DUP) R3582022-4 10/15/20 18:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00195	U	1	200	P1	20

Laboratory Control Sample (LCS)

(LCS) R3582022-2 10/15/20 17:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0956	95.6	87.1-120	

L1271044-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271044-02 10/15/20 18:09 • (MS) R3582022-5 10/15/20 18:12 • (MSD) R3582022-6 10/15/20 18:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00249	0.100	0.101	97.5	98.5	1	90.0-110			0.995	20

L1271298-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-22 10/15/20 18:19 • (MS) R3582022-7 10/15/20 18:20 • (MSD) R3582022-8 10/15/20 18:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.100	0.0994	100	99.4	1	90.0-110			0.602	20

Method Blank (MB)

(MB) R3582107-1 10/16/20 04:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1270958-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270958-02 10/16/20 04:34 • (DUP) R3582107-3 10/16/20 04:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	0.00187	1	0.000		20

L1271284-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-07 10/16/20 04:45 • (DUP) R3582107-6 10/16/20 04:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582107-2 10/16/20 04:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.106	106	87.1-120	

L1271000-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271000-02 10/16/20 04:39 • (MS) R3582107-4 10/16/20 04:40 • (MSD) R3582107-5 10/16/20 04:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00382	0.108	0.103	104	99.2	1	90.0-110			4.74	20

L1271576-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271576-03 10/16/20 05:24 • (MS) R3582107-7 10/16/20 05:25 • (MSD) R3582107-8 10/16/20 05:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00223	0.0894	0.0935	87.2	91.3	1	90.0-110	J6		4.48	20

Method Blank (MB)

(MB) R3581321-1 10/13/20 09:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271298-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-03 10/13/20 12:06 • (DUP) R3581321-3 10/13/20 12:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	4.87	4.89	1	0.412		15

L1271298-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-03 10/13/20 16:26 • (DUP) R3581321-4 10/13/20 16:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	690	685	100	0.775		15
Sulfate	2400	2390	100	0.604		15

L1271298-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-18 10/14/20 03:24 • (DUP) R3581321-5 10/14/20 03:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	1.07	1.08	1	0.475		15

L1271298-18 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-18 10/14/20 04:54 • (DUP) R3581321-7 10/14/20 05:12

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1390	1380	100	1.01		15
Sulfate	1920	1920	100	0.0198		15

Laboratory Control Sample (LCS)

(LCS) R3581321-2 10/13/20 09:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	40.1	100	80.0-120	
Fluoride	8.00	8.20	102	80.0-120	
Sulfate	40.0	40.3	101	80.0-120	

L1271298-18 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271298-18 10/14/20 03:24 • (MS) R3581321-6 10/14/20 04:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	1580	1550	0.000	1	80.0-120	E V
Fluoride	5.00	1.07	6.23	103	1	80.0-120	
Sulfate	50.0	2290	2200	0.000	1	80.0-120	E V

L1271298-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-03 10/13/20 12:06 • (MS) R3581321-8 10/14/20 07:53 • (MSD) R3581321-9 10/14/20 09:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	770	858	854	176	168	1	80.0-120	E V	E V	0.471	15
Fluoride	5.00	4.87	10.3	10.2	108	107	1	80.0-120	E	E	0.165	15
Sulfate	50.0	2670	2820	2810	297	283	1	80.0-120	E V	E V	0.243	15

Method Blank (MB)

(MB) R3581674-1 10/14/20 14:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271298-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-36 10/14/20 22:25 • (DUP) R3581674-3 10/14/20 22:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5.84	5.83	1	0.0771		15
Fluoride	U	U	1	0.000		15
Sulfate	5.05	4.95	1	1.95	J	15

L1271301-44 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-44 10/15/20 02:00 • (DUP) R3581674-6 10/15/20 02:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	0.428	1	200	J P1	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3581674-2 10/14/20 15:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.1	97.8	80.0-120	
Fluoride	8.00	8.02	100	80.0-120	
Sulfate	40.0	39.1	97.7	80.0-120	

L1271298-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-36 10/14/20 22:25 • (MS) R3581674-4 10/14/20 23:00 • (MSD) R3581674-5 10/14/20 23:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	5.84	55.8	56.1	99.9	100	1	80.0-120			0.546	15
Fluoride	5.00	U	5.00	5.03	99.9	101	1	80.0-120			0.666	15
Sulfate	50.0	5.05	54.9	55.2	99.7	100	1	80.0-120			0.487	15

L1271301-44 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-44 10/15/20 02:00 • (MS) R3581674-7 10/15/20 02:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	49.7	99.4	1	80.0-120	
Fluoride	5.00	U	4.99	99.8	1	80.0-120	
Sulfate	50.0	U	49.4	98.8	1	80.0-120	

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Method Blank (MB)

(MB) R3580201-1 10/11/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3580201-2 10/11/20 10:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00292	97.2	80.0-120	

L1271298-30 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-30 10/11/20 10:36 • (MS) R3580201-3 10/11/20 10:38 • (MSD) R3580201-4 10/11/20 10:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00261	0.00246	87.1	82.1	1	75.0-125			5.92	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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Method Blank (MB)

(MB) R3580327-1 10/12/20 04:05

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3580327-2 10/12/20 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.984	98.4	80.0-120	

L1271025-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271025-08 10/12/20 04:10 • (MS) R3580327-4 10/12/20 04:15 • (MSD) R3580327-5 10/12/20 04:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.496	1.46	1.46	96.0	96.1	1	75.0-125			0.0564	20

Method Blank (MB)

(MB) R3581976-1 10/15/20 15:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	0.00111	J	0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581976-2 10/15/20 15:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0481	96.1	80.0-120	
Barium	0.0500	0.0490	97.9	80.0-120	
Cadmium	0.0500	0.0494	98.8	80.0-120	
Calcium	5.00	4.92	98.5	80.0-120	
Chromium	0.0500	0.0492	98.5	80.0-120	
Cobalt	0.0500	0.0483	96.6	80.0-120	
Iron	5.00	4.78	95.7	80.0-120	
Lead	0.0500	0.0462	92.4	80.0-120	
Manganese	0.0500	0.0481	96.3	80.0-120	
Nickel	0.0500	0.0489	97.7	80.0-120	
Potassium	5.00	4.98	99.6	80.0-120	
Selenium	0.0500	0.0490	98.0	80.0-120	
Sodium	5.00	5.08	102	80.0-120	
Uranium	0.0500	0.0504	101	80.0-120	
Vanadium	0.0500	0.0492	98.4	80.0-120	

L1271298-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-08 10/15/20 15:24 • (MS) R3581976-4 10/15/20 15:32 • (MSD) R3581976-5 10/15/20 15:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00798	0.0571	0.0546	98.3	93.2	1	75.0-125			4.57	20
Barium	0.0500	0.0148	0.0677	0.0638	106	98.0	1	75.0-125			5.95	20
Cadmium	0.0500	U	0.0506	0.0505	101	101	1	75.0-125			0.251	20
Calcium	5.00	292	297	297	96.6	92.8	1	75.0-125			0.0646	20
Chromium	0.0500	U	0.0505	0.0488	98.4	95.0	1	75.0-125			3.42	20
Cobalt	0.0500	U	0.0491	0.0473	97.3	93.7	1	75.0-125			3.73	20
Potassium	5.00	3.46	8.33	8.34	97.3	97.6	1	75.0-125			0.140	20
Iron	5.00	0.700	5.55	5.33	97.1	92.6	1	75.0-125			4.16	20
Lead	0.0500	U	0.0459	0.0461	91.8	92.1	1	75.0-125			0.331	20
Manganese	0.0500	0.491	0.522	0.507	62.9	32.6	1	75.0-125	V	V	2.94	20
Nickel	0.0500	0.0101	0.0569	0.0561	93.7	92.0	1	75.0-125			1.53	20
Selenium	0.0500	0.000658	0.0532	0.0543	105	107	1	75.0-125			1.92	20
Sodium	5.00	1030	1030	1030	117	0.000	1	75.0-125	E	E V	0.736	20
Uranium	0.0500	U	0.0539	0.0546	102	104	1	75.0-125			1.15	20
Vanadium	0.0500	0.00192	0.0515	0.0494	99.2	95.0	1	75.0-125			4.07	20

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Method Blank (MB)

(MB) R3581106-1 10/13/20 16:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581106-2 10/13/20 16:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0488	97.5	80.0-120	
Barium	0.0500	0.0463	92.6	80.0-120	
Cadmium	0.0500	0.0573	115	80.0-120	
Calcium	5.00	5.10	102	80.0-120	
Chromium	0.0500	0.0505	101	80.0-120	
Cobalt	0.0500	0.0523	105	80.0-120	
Iron	5.00	4.74	94.9	80.0-120	
Lead	0.0500	0.0517	103	80.0-120	
Manganese	0.0500	0.0485	97.1	80.0-120	
Nickel	0.0500	0.0529	106	80.0-120	
Potassium	5.00	4.92	98.4	80.0-120	
Selenium	0.0500	0.0552	110	80.0-120	
Sodium	5.00	5.34	107	80.0-120	
Uranium	0.0500	0.0504	101	80.0-120	
Vanadium	0.0500	0.0481	96.3	80.0-120	

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QUALITY CONTROL SUMMARY

L1271298-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-09 10/13/20 16:17 • (MS) R3581106-4 10/13/20 16:23 • (MSD) R3581106-5 10/13/20 16:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00831	0.0601	0.0597	104	103	1	75.0-125			0.745	20
Barium	0.0500	0.0220	0.0694	0.0719	94.8	99.7	1	75.0-125			3.51	20
Cadmium	0.0500	U	0.0536	0.0528	107	106	1	75.0-125			1.39	20
Calcium	5.00	922	941	957	391	710	1	75.0-125	V	V	1.68	20
Chromium	0.0500	U	0.0513	0.0517	103	103	1	75.0-125			0.670	20
Cobalt	0.0500	0.000721	0.0524	0.0513	103	101	1	75.0-125			2.06	20
Potassium	5.00	15.8	20.7	21.0	97.9	105	1	75.0-125			1.76	20
Iron	5.00	4.53	9.66	9.51	103	99.5	1	75.0-125			1.58	20
Lead	0.0500	U	0.0514	0.0524	103	105	1	75.0-125			1.79	20
Manganese	0.0500	2.54	2.70	2.65	321	217	1	75.0-125	V	V	1.94	20
Nickel	0.0500	0.00284	0.0538	0.0534	102	101	1	75.0-125			0.803	20
Selenium	0.0500	U	0.0588	0.0585	116	116	1	75.0-125			0.462	20
Sodium	5.00	2460	2520	2550	1140	1740	1	75.0-125	E V	E V	1.19	20
Uranium	0.0500	U	0.0527	0.0540	103	106	1	75.0-125			2.35	20
Vanadium	0.0500	U	0.0514	0.0513	103	103	1	75.0-125			0.268	20

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Method Blank (MB)

(MB) R3581272-1 10/14/20 01:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	0.957	J	0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3581575-1 10/14/20 18:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	0.764	J	0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3581272-2 10/14/20 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0483	96.6	80.0-120	
Barium	0.0500	0.0463	92.5	80.0-120	
Cadmium	0.0500	0.0541	108	80.0-120	
Calcium	5.00	4.93	98.7	80.0-120	
Chromium	0.0500	0.0513	103	80.0-120	
Cobalt	0.0500	0.0516	103	80.0-120	
Iron	5.00	4.99	99.8	80.0-120	
Lead	0.0500	0.0503	101	80.0-120	
Manganese	0.0500	0.0497	99.4	80.0-120	
Nickel	0.0500	0.0524	105	80.0-120	
Potassium	5.00	4.79	95.7	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3581272-2 10/14/20 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	0.0500	0.0505	101	80.0-120	
Sodium	5.00	4.83	96.7	80.0-120	
Uranium	0.0500	0.0486	97.2	80.0-120	
Vanadium	0.0500	0.0489	97.8	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3581575-2 10/14/20 18:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	5.00	4.77	95.4	80.0-120	

L1271298-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-29 10/14/20 01:22 • (MS) R3581272-4 10/14/20 01:28 • (MSD) R3581272-5 10/14/20 01:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00783	0.0569	0.0573	98.1	99.0	1	75.0-125			0.773	20
Barium	0.0500	0.0169	0.0635	0.0650	93.3	96.1	1	75.0-125			2.20	20
Cadmium	0.0500	U	0.0509	0.0509	102	102	1	75.0-125			0.0707	20
Calcium	5.00	617	620	628	50.1	206	1	75.0-125	V	V	1.25	20
Chromium	0.0500	U	0.0495	0.0507	96.2	98.6	1	75.0-125			2.35	20
Cobalt	0.0500	0.00801	0.0566	0.0578	97.2	99.6	1	75.0-125			2.06	20
Potassium	5.00	23.5	28.0	28.2	89.6	94.7	1	75.0-125			0.893	20
Iron	5.00	0.925	5.66	5.72	94.7	95.9	1	75.0-125			1.06	20
Lead	0.0500	U	0.0510	0.0494	102	98.8	1	75.0-125			3.06	20
Manganese	0.0500	1.56	1.58	1.60	31.1	70.7	1	75.0-125	V	V	1.25	20
Nickel	0.0500	0.0177	0.0653	0.0674	95.0	99.2	1	75.0-125			3.16	20
Selenium	0.0500	U	0.0530	0.0538	106	108	1	75.0-125			1.46	20
Uranium	0.0500	0.0104	0.0619	0.0608	103	101	1	75.0-125			1.88	20
Vanadium	0.0500	U	0.0510	0.0519	100	102	1	75.0-125			1.81	20

L1271298-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-29 10/14/20 18:42 • (MS) R3581575-4 10/14/20 18:50 • (MSD) R3581575-5 10/14/20 18:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	5.00	2820	2770	2800	0.000	0.000	1	75.0-125	E V	E V	0.919	20

Method Blank (MB)

(MB) R3582008-2 10/14/20 07:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*120*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582008-1 10/14/20 06:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.83	87.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*78.0-120*	

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Method Blank (MB)

(MB) R3581679-3 10/14/20 20:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*119*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3581679-2 10/14/20 19:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.43	98.7	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*78.0-120*	

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Method Blank (MB)

(MB) R3582382-3 10/16/20 07:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582382-2 10/16/20 06:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.95	108	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

L1271358-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271358-05 10/16/20 15:59 • (MS) R3582382-6 10/16/20 21:31 • (MSD) R3582382-7 10/16/20 21:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	U	3.47	3.48	63.1	63.3	1	10.0-160			0.288	22
(S) a,a,a-Trifluorotoluene(FID)					*99.7*	*97.5*		*78.0-120*				

Method Blank (MB)

(MB) R3581975-2 10/15/20 14:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0416	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3581975-1 10/15/20 13:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.41	117	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*114*	*78.0-120*	

Method Blank (MB)

(MB) R3582143-3 10/15/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582143-2 10/15/20 18:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.78	105	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3582384-3 10/16/20 07:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582384-2 10/16/20 06:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.95	108	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

Volatile Organic Compounds (GC) by Method 8015D/GRO

L1271298-12,13

Method Blank (MB)

(MB) R3583314-3 10/19/20 16:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3583314-2 10/19/20 13:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.48	99.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582355-2 10/16/20 06:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	0.000134	J	0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582355-2 10/16/20 06:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582355-1 10/16/20 05:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0271	108	19.0-160	
Benzene	0.00500	0.00512	102	70.0-123	
Bromodichloromethane	0.00500	0.00498	99.6	75.0-120	
Bromoform	0.00500	0.00480	96.0	68.0-132	
Bromomethane	0.00500	0.00510	102	10.0-160	
n-Butylbenzene	0.00500	0.00494	98.8	73.0-125	
sec-Butylbenzene	0.00500	0.00500	100	75.0-125	
Carbon disulfide	0.00500	0.00512	102	61.0-128	
Carbon tetrachloride	0.00500	0.00465	93.0	68.0-126	
Chlorobenzene	0.00500	0.00520	104	80.0-121	
Chlorodibromomethane	0.00500	0.00481	96.2	77.0-125	
Chloroethane	0.00500	0.00537	107	47.0-150	
Chloroform	0.00500	0.00520	104	73.0-120	
Chloromethane	0.00500	0.00493	98.6	41.0-142	
1,2-Dibromoethane	0.00500	0.00517	103	80.0-122	
1,1-Dichloroethane	0.00500	0.00520	104	70.0-126	
1,2-Dichloroethane	0.00500	0.00503	101	70.0-128	
1,1-Dichloroethene	0.00500	0.00515	103	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00536	107	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00530	106	73.0-120	
1,2-Dichloropropane	0.00500	0.00530	106	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00502	100	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00469	93.8	78.0-124	
Ethylbenzene	0.00500	0.00525	105	79.0-123	

Laboratory Control Sample (LCS)

(LCS) R3582355-1 10/16/20 05:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Hexanone	0.0250	0.0257	103	67.0-149	
Isopropylbenzene	0.00500	0.00526	105	76.0-127	
p-Isopropyltoluene	0.00500	0.00499	99.8	76.0-125	
2-Butanone (MEK)	0.0250	0.0251	100	44.0-160	
Methylene Chloride	0.00500	0.00479	95.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0252	101	68.0-142	
Methyl tert-butyl ether	0.00500	0.00501	100	68.0-125	
Naphthalene	0.00500	0.00516	103	54.0-135	
n-Propylbenzene	0.00500	0.00472	94.4	77.0-124	
Styrene	0.00500	0.00502	100	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00491	98.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00446	89.2	65.0-130	
Tetrachloroethene	0.00500	0.00549	110	72.0-132	
Toluene	0.00500	0.00506	101	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00521	104	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00492	98.4	80.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00477	95.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00467	93.4	76.0-122	
Vinyl chloride	0.00500	0.00538	108	67.0-131	
Xylenes, Total	0.0150	0.0155	103	79.0-123	
o-Xylene	0.00500	0.00508	102	80.0-122	
m&p-Xylenes	0.0100	0.0104	104	80.0-122	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

Method Blank (MB)

(MB) R3582681-3 10/16/20 18:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*99.7*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*126*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582681-1 10/16/20 17:11 • (LCSD) R3582681-2 10/16/20 17:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Trichloroethene	0.00500	0.00596	0.00592	119	118	78.0-124			0.673	20
(S) Toluene-d8				*99.0*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.4*	*98.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*120*	*129*	*70.0-130*				

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3583108-2 10/17/20 10:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0244	97.6	19.0-160	
Benzene	0.00500	0.00503	101	70.0-123	
Bromodichloromethane	0.00500	0.00493	98.6	75.0-120	
Bromoform	0.00500	0.00486	97.2	68.0-132	
Bromomethane	0.00500	0.00555	111	10.0-160	
n-Butylbenzene	0.00500	0.00506	101	73.0-125	
sec-Butylbenzene	0.00500	0.00510	102	75.0-125	
Carbon disulfide	0.00500	0.00486	97.2	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00517	103	80.0-121	
Chlorodibromomethane	0.00500	0.00505	101	77.0-125	
Chloroethane	0.00500	0.00559	112	47.0-150	
Chloroform	0.00500	0.00498	99.6	73.0-120	
Chloromethane	0.00500	0.00502	100	41.0-142	
1,2-Dibromoethane	0.00500	0.00511	102	80.0-122	
1,1-Dichloroethane	0.00500	0.00507	101	70.0-126	
1,2-Dichloroethane	0.00500	0.00500	100	70.0-128	
1,1-Dichloroethene	0.00500	0.00486	97.2	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00512	102	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00509	102	73.0-120	
1,2-Dichloropropane	0.00500	0.00504	101	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00485	97.0	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00481	96.2	78.0-124	
Ethylbenzene	0.00500	0.00531	106	79.0-123	

Laboratory Control Sample (LCS)

(LCS) R3583108-1 10/17/20 08:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00517	103	76.0-127	
p-Isopropyltoluene	0.00500	0.00515	103	76.0-125	
2-Butanone (MEK)	0.0250	0.0238	95.2	44.0-160	
Methylene Chloride	0.00500	0.00469	93.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	100	68.0-142	
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Naphthalene	0.00500	0.00505	101	54.0-135	
n-Propylbenzene	0.00500	0.00475	95.0	77.0-124	
Styrene	0.00500	0.00508	102	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00530	106	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00425	85.0	65.0-130	
Tetrachloroethene	0.00500	0.00548	110	72.0-132	
Toluene	0.00500	0.00513	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00508	102	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00530	106	80.0-120	
1,2,4-Trimethylbenzene	0.00500	0.00472	94.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00478	95.6	76.0-122	
Vinyl chloride	0.00500	0.00554	111	67.0-131	
Xylenes, Total	0.0150	0.0154	103	79.0-123	
o-Xylene	0.00500	0.00508	102	80.0-122	
m&p-Xylenes	0.0100	0.0103	103	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

Method Blank (MB)

(MB) R3582655-2 10/17/20 04:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100

Method Blank (MB)

(MB) R3582655-2 10/17/20 04:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*119*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582655-1 10/17/20 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0251	100	19.0-160	
Benzene	0.00500	0.00514	103	70.0-123	
Bromodichloromethane	0.00500	0.00548	110	75.0-120	
Bromoform	0.00500	0.00521	104	68.0-132	
Bromomethane	0.00500	0.00571	114	10.0-160	
n-Butylbenzene	0.00500	0.00441	88.2	73.0-125	
sec-Butylbenzene	0.00500	0.00517	103	75.0-125	
Carbon disulfide	0.00500	0.00540	108	61.0-128	
Carbon tetrachloride	0.00500	0.00642	128	68.0-126	J4
Chlorobenzene	0.00500	0.00513	103	80.0-121	
Chlorodibromomethane	0.00500	0.00520	104	77.0-125	
Chloroethane	0.00500	0.00608	122	47.0-150	
Chloroform	0.00500	0.00566	113	73.0-120	
Chloromethane	0.00500	0.00505	101	41.0-142	
1,2-Dibromoethane	0.00500	0.00509	102	80.0-122	
1,1-Dichloroethane	0.00500	0.00536	107	70.0-126	
1,2-Dichloroethane	0.00500	0.00546	109	70.0-128	
1,1-Dichloroethene	0.00500	0.00554	111	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00535	107	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00546	109	73.0-120	
1,2-Dichloropropane	0.00500	0.00496	99.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00492	98.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00483	96.6	78.0-124	
Ethylbenzene	0.00500	0.00529	106	79.0-123	

Laboratory Control Sample (LCS)

(LCS) R3582655-1 10/17/20 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
2-Hexanone	0.0250	0.0216	86.4	67.0-149	
Isopropylbenzene	0.00500	0.00503	101	76.0-127	
p-Isopropyltoluene	0.00500	0.00518	104	76.0-125	
2-Butanone (MEK)	0.0250	0.0225	90.0	44.0-160	
Methylene Chloride	0.00500	0.00481	96.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0236	94.4	68.0-142	
Methyl tert-butyl ether	0.00500	0.00517	103	68.0-125	
n-Propylbenzene	0.00500	0.00521	104	77.0-124	
Styrene	0.00500	0.00484	96.8	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00538	108	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00448	89.6	65.0-130	
Tetrachloroethene	0.00500	0.00599	120	72.0-132	
Toluene	0.00500	0.00509	102	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00632	126	73.0-124	J4
1,1,2-Trichloroethane	0.00500	0.00496	99.2	80.0-120	
Trichloroethene	0.00500	0.00604	121	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00511	102	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00528	106	76.0-122	
Vinyl chloride	0.00500	0.00423	84.6	67.0-131	
Xylenes, Total	0.0150	0.0153	102	79.0-123	
o-Xylene	0.00500	0.00482	96.4	80.0-122	
m&p-Xylenes	0.0100	0.0105	105	80.0-122	
(S) Toluene-d8			*104*	*80.0-120*	
(S) 4-Bromofluorobenzene			*100*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*116*	*70.0-130*	

Method Blank (MB)

(MB) R3582662-2 10/17/20 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582662-2 10/17/20 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582662-1 10/17/20 01:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0225	90.0	19.0-160	
Benzene	0.00500	0.00489	97.8	70.0-123	
Bromodichloromethane	0.00500	0.00447	89.4	75.0-120	
Bromoform	0.00500	0.00461	92.2	68.0-132	
Bromomethane	0.00500	0.00680	136	10.0-160	
n-Butylbenzene	0.00500	0.00384	76.8	73.0-125	
sec-Butylbenzene	0.00500	0.00421	84.2	75.0-125	
Carbon disulfide	0.00500	0.00492	98.4	61.0-128	
Carbon tetrachloride	0.00500	0.00473	94.6	68.0-126	
Chlorobenzene	0.00500	0.00505	101	80.0-121	
Chlorodibromomethane	0.00500	0.00456	91.2	77.0-125	
Chloroethane	0.00500	0.00635	127	47.0-150	
Chloroform	0.00500	0.00475	95.0	73.0-120	
Chloromethane	0.00500	0.00339	67.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00514	103	80.0-122	
1,1-Dichloroethane	0.00500	0.00435	87.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00485	97.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00506	101	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00481	96.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00492	98.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00415	83.0	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00422	84.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00386	77.2	78.0-124	J4

Laboratory Control Sample (LCS)

(LCS) R3582662-1 10/17/20 01:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00530	106	79.0-123	
2-Hexanone	0.0250	0.0178	71.2	67.0-149	
Isopropylbenzene	0.00500	0.00485	97.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00411	82.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0182	72.8	44.0-160	
Methylene Chloride	0.00500	0.00439	87.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0172	68.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00464	92.8	68.0-125	
Naphthalene	0.00500	0.00389	77.8	54.0-135	
n-Propylbenzene	0.00500	0.00385	77.0	77.0-124	
Styrene	0.00500	0.00482	96.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00456	91.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00371	74.2	65.0-130	
Tetrachloroethene	0.00500	0.00581	116	72.0-132	
Toluene	0.00500	0.00455	91.0	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00485	97.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00477	95.4	80.0-120	
Trichloroethene	0.00500	0.00580	116	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00392	78.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00383	76.6	76.0-122	
Vinyl chloride	0.00500	0.00408	81.6	67.0-131	
Xylenes, Total	0.0150	0.0145	96.7	79.0-123	
o-Xylene	0.00500	0.00496	99.2	80.0-122	
m&p-Xylenes	0.0100	0.00958	95.8	80.0-122	
(S) Toluene-d8			*100*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.6*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*96.9*	*70.0-130*	

Method Blank (MB)

(MB) R3582663-2 10/16/20 17:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582663-2 10/16/20 17:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582663-1 10/16/20 17:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0251	100	19.0-160	
Benzene	0.00500	0.00525	105	70.0-123	
Bromodichloromethane	0.00500	0.00481	96.2	75.0-120	
Bromoform	0.00500	0.00501	100	68.0-132	
Bromomethane	0.00500	0.00925	185	10.0-160	J4
n-Butylbenzene	0.00500	0.00471	94.2	73.0-125	
sec-Butylbenzene	0.00500	0.00498	99.6	75.0-125	
Carbon disulfide	0.00500	0.00557	111	61.0-128	
Carbon tetrachloride	0.00500	0.00562	112	68.0-126	
Chlorobenzene	0.00500	0.00549	110	80.0-121	
Chlorodibromomethane	0.00500	0.00514	103	77.0-125	
Chloroethane	0.00500	0.00586	117	47.0-150	
Chloroform	0.00500	0.00518	104	73.0-120	
Chloromethane	0.00500	0.00360	72.0	41.0-142	
1,2-Dibromoethane	0.00500	0.00569	114	80.0-122	
1,1-Dichloroethane	0.00500	0.00501	100	70.0-126	
1,2-Dichloroethane	0.00500	0.00542	108	70.0-128	
1,1-Dichloroethene	0.00500	0.00550	110	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00525	105	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00581	116	73.0-120	
1,2-Dichloropropane	0.00500	0.00461	92.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00505	101	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00463	92.6	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3582663-1 10/16/20 17:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00573	115	79.0-123	
2-Hexanone	0.0250	0.0211	84.4	67.0-149	
Isopropylbenzene	0.00500	0.00540	108	76.0-127	
p-Isopropyltoluene	0.00500	0.00487	97.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0209	83.6	44.0-160	
Methylene Chloride	0.00500	0.00503	101	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0192	76.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00501	100	68.0-125	
Naphthalene	0.00500	0.00418	83.6	54.0-135	
n-Propylbenzene	0.00500	0.00449	89.8	77.0-124	
Styrene	0.00500	0.00529	106	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00533	107	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00445	89.0	65.0-130	
Tetrachloroethene	0.00500	0.00653	131	72.0-132	
Toluene	0.00500	0.00521	104	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00567	113	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00543	109	80.0-120	
Trichloroethene	0.00500	0.00663	133	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00446	89.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00436	87.2	76.0-122	
Vinyl chloride	0.00500	0.00498	99.6	67.0-131	
Xylenes, Total	0.0150	0.0164	109	79.0-123	
o-Xylene	0.00500	0.00565	113	80.0-122	
m&p-Xylenes	0.0100	0.0108	108	80.0-122	
(S) Toluene-d8			*99.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*96.3*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*98.4*	*70.0-130*	

Method Blank (MB)

(MB) R3582701-2 10/17/20 09:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582701-2 10/17/20 09:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylene	U		0.000430	0.00200
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*90.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582701-1 10/17/20 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0201	80.4	19.0-160	
Benzene	0.00500	0.00504	101	70.0-123	
Bromodichloromethane	0.00500	0.00441	88.2	75.0-120	
Bromoform	0.00500	0.00420	84.0	68.0-132	
Bromomethane	0.00500	0.00604	121	10.0-160	
n-Butylbenzene	0.00500	0.00432	86.4	73.0-125	
sec-Butylbenzene	0.00500	0.00416	83.2	75.0-125	
Carbon disulfide	0.00500	0.00485	97.0	61.0-128	
Carbon tetrachloride	0.00500	0.00437	87.4	68.0-126	
Chlorobenzene	0.00500	0.00509	102	80.0-121	
Chlorodibromomethane	0.00500	0.00427	85.4	77.0-125	
Chloroethane	0.00500	0.00532	106	47.0-150	
Chloroform	0.00500	0.00477	95.4	73.0-120	
Chloromethane	0.00500	0.00409	81.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00481	96.2	80.0-122	
1,1-Dichloroethane	0.00500	0.00458	91.6	70.0-126	
1,2-Dichloroethane	0.00500	0.00458	91.6	70.0-128	
1,1-Dichloroethene	0.00500	0.00529	106	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00459	91.8	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00484	96.8	73.0-120	
1,2-Dichloropropane	0.00500	0.00491	98.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00453	90.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00431	86.2	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3582701-1 10/17/20 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00510	102	79.0-123	
2-Hexanone	0.0250	0.0221	88.4	67.0-149	
Isopropylbenzene	0.00500	0.00446	89.2	76.0-127	
p-Isopropyltoluene	0.00500	0.00440	88.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0217	86.8	44.0-160	
Methylene Chloride	0.00500	0.00527	105	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0220	88.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00468	93.6	68.0-125	
Naphthalene	0.00500	0.00345	69.0	54.0-135	
n-Propylbenzene	0.00500	0.00451	90.2	77.0-124	
Styrene	0.00500	0.00460	92.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00454	90.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00389	77.8	65.0-130	
Tetrachloroethene	0.00500	0.00575	115	72.0-132	
Toluene	0.00500	0.00476	95.2	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00462	92.4	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00510	102	80.0-120	
Trichloroethene	0.00500	0.00580	116	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00422	84.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00454	90.8	76.0-122	
Vinyl chloride	0.00500	0.00418	83.6	67.0-131	
Xylenes, Total	0.0150	0.0148	98.7	79.0-123	
o-Xylene	0.00500	0.00481	96.2	80.0-122	
m&p-Xylene	0.0100	0.00999	99.9	80.0-122	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*88.3*	*70.0-130*	

Method Blank (MB)

(MB) R3582711-2 10/18/20 03:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000369	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100

Method Blank (MB)

(MB) R3582711-2 10/18/20 03:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*108*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582711-1 10/18/20 02:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0238	95.2	19.0-160	
Bromodichloromethane	0.00500	0.00490	98.0	75.0-120	
Bromoform	0.00500	0.00495	99.0	68.0-132	
Bromomethane	0.00500	0.00303	60.6	10.0-160	
n-Butylbenzene	0.00500	0.00447	89.4	73.0-125	
sec-Butylbenzene	0.00500	0.00449	89.8	75.0-125	
Carbon disulfide	0.00500	0.00429	85.8	61.0-128	
Carbon tetrachloride	0.00500	0.00471	94.2	68.0-126	
Chlorobenzene	0.00500	0.00500	100	80.0-121	
Chlorodibromomethane	0.00500	0.00494	98.8	77.0-125	
Chloroethane	0.00500	0.00500	100	47.0-150	
Chloroform	0.00500	0.00454	90.8	73.0-120	
Chloromethane	0.00500	0.00426	85.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00485	97.0	80.0-122	
1,1-Dichloroethane	0.00500	0.00455	91.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00465	93.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00459	91.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00470	94.0	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00438	87.6	73.0-120	
1,2-Dichloropropane	0.00500	0.00456	91.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00426	85.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00453	90.6	78.0-124	
Ethylbenzene	0.00500	0.00469	93.8	79.0-123	
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00469	93.8	76.0-127	

Laboratory Control Sample (LCS)

(LCS) R3582711-1 10/18/20 02:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
p-Isopropyltoluene	0.00500	0.00448	89.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0243	97.2	44.0-160	
Methylene Chloride	0.00500	0.00496	99.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0245	98.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00481	96.2	68.0-125	
n-Propylbenzene	0.00500	0.00422	84.4	77.0-124	
Styrene	0.00500	0.00481	96.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00494	98.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00435	87.0	65.0-130	
Tetrachloroethene	0.00500	0.00483	96.6	72.0-132	
Toluene	0.00500	0.00468	93.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00450	90.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00504	101	80.0-120	
Trichloroethene	0.00500	0.00481	96.2	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00435	87.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00436	87.2	76.0-122	
Vinyl chloride	0.00500	0.00438	87.6	67.0-131	
Xylenes, Total	0.0150	0.0140	93.3	79.0-123	
o-Xylene	0.00500	0.00470	94.0	80.0-122	
m&p-Xylenes	0.0100	0.00934	93.4	80.0-122	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3582767-2 10/18/20 05:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Naphthalene	U		0.00100	0.00500
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582767-1 10/18/20 04:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.00500	0.00416	83.2	54.0-135	
(S) Toluene-d8			*98.3*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.8*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583024-2 10/18/20 12:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583024-2 10/18/20 12:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583024-1 10/18/20 11:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0239	95.6	19.0-160	
Benzene	0.00500	0.00515	103	70.0-123	
Bromodichloromethane	0.00500	0.00488	97.6	75.0-120	
Bromoform	0.00500	0.00489	97.8	68.0-132	
Bromomethane	0.00500	0.00579	116	10.0-160	
n-Butylbenzene	0.00500	0.00560	112	73.0-125	
sec-Butylbenzene	0.00500	0.00551	110	75.0-125	
Carbon disulfide	0.00500	0.00495	99.0	61.0-128	
Carbon tetrachloride	0.00500	0.00461	92.2	68.0-126	
Chlorobenzene	0.00500	0.00543	109	80.0-121	
Chlorodibromomethane	0.00500	0.00512	102	77.0-125	
Chloroethane	0.00500	0.00589	118	47.0-150	
Chloroform	0.00500	0.00522	104	73.0-120	
Chloromethane	0.00500	0.00555	111	41.0-142	
1,2-Dibromoethane	0.00500	0.00513	103	80.0-122	
1,1-Dichloroethane	0.00500	0.00543	109	70.0-126	
1,2-Dichloroethane	0.00500	0.00535	107	70.0-128	
1,1-Dichloroethene	0.00500	0.00505	101	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00535	107	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00527	105	73.0-120	
1,2-Dichloropropane	0.00500	0.00518	104	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00479	95.8	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00487	97.4	78.0-124	

Released to Imaging: 11/21/2023 10:16:55 AM

Laboratory Control Sample (LCS)

(LCS) R3583024-1 10/18/20 11:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00564	113	79.0-123	
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00555	111	76.0-127	
p-Isopropyltoluene	0.00500	0.00553	111	76.0-125	
2-Butanone (MEK)	0.0250	0.0246	98.4	44.0-160	
Methylene Chloride	0.00500	0.00486	97.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0247	98.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00502	100	68.0-125	
Naphthalene	0.00500	0.00511	102	54.0-135	
n-Propylbenzene	0.00500	0.00485	97.0	77.0-124	
Styrene	0.00500	0.00534	107	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00550	110	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00465	93.0	65.0-130	
Tetrachloroethene	0.00500	0.00567	113	72.0-132	
Toluene	0.00500	0.00549	110	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00530	106	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00528	106	80.0-120	
Trichloroethene	0.00500	0.00518	104	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00496	99.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00488	97.6	76.0-122	
Vinyl chloride	0.00500	0.00597	119	67.0-131	
Xylenes, Total	0.0150	0.0164	109	79.0-123	
o-Xylene	0.00500	0.00534	107	80.0-122	
m&p-Xylenes	0.0100	0.0111	111	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

Method Blank (MB)

(MB) R3582899-2 10/18/20 13:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Naphthalene	U		0.00100	0.00500
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582899-1 10/18/20 12:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00488	97.6	70.0-123	
Naphthalene	0.00500	0.00531	106	54.0-135	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*97.6*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*104*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583344-3 10/19/20 22:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
Trichloroethene	U		0.000190	0.00100
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583344-1 10/19/20 21:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Trichloroethene	0.00500	0.00507	101	78.0-124	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*104*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3581663-1 10/14/20 12:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*98.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581663-2 10/14/20 12:50 • (LCSD) R3581663-3 10/14/20 13:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.63	1.63	109	109	50.0-150			0.000	20
(S) o-Terphenyl				*107*	*108*	*31.0-160*				

Semi-Volatile Organic Compounds (GC) by Method 3511/8015 L1271298-03,04,05,06,07,08,09,10,11,12,15,16,17,18,19,20,21,22,25,26

Method Blank (MB)

(MB) R3581260-1 10/13/20 21:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*102*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581260-2 10/13/20 21:40 • (LCSD) R3581260-3 10/13/20 22:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.58	1.59	105	106	50.0-150			0.631	20
(S) o-Terphenyl				*50.0*	*51.0*	*31.0-160*				

Method Blank (MB)

(MB) R3582056-1 10/15/20 05:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0505	J	0.0247	0.100
(S) o-Terphenyl	*85.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582056-2 10/15/20 06:04 • (LCSD) R3582056-3 10/15/20 06:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.44	1.45	96.0	96.7	50.0-150			0.692	20
(S) o-Terphenyl				*114*	*111*	*31.0-160*				

Method Blank (MB)

(MB) R3581676-1 10/14/20 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*101*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581676-2 10/15/20 00:19 • (LCSD) R3581676-3 10/15/20 00:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.58	1.61	105	107	50.0-150			1.88	20
(S) o-Terphenyl				*106*	*104*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
~~MW-85~~ LNAPL	~~Grab~~	~~GW~~				~~9~~	x	x	x	x	x	x	x					-01
MW-86	Grab	GW		10/6/20	1635	10	x	x	x		x	x	x	x	x			-02 -01
MW-120	Grab	GW			900	9	x	x	x	x	x	x	x					-03 -02
MW-121	Grab	GW			940	9	x	x	x	x	x	x	x					-04 -03
MW-84	Grab	GW			1550	9	x	x	x	x	x	x	x					-05 -04
MW-122	Grab	GW			1115	9	x	x	x	x	x	x	x					-06 -05
MW-79	Grab	GW			1030	9	x	x	x	x	x	x	x					-07 -06
MW-74	Grab	GW			1435	9	x	x	x	x	x	x	x					-08 -07
MW-2A	Grab	GW			1155	9	x	x	x	x	x	x	x					-09 -08
OCD-6	Grab	GW			1250	9	x	x	x	x	x	x	x					-10 -09

Chain of Custody Page 1 of 5

p. 11/19

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National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L127298

Table #

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Scott Ude	10/7/20	1400	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Olivia Tirres

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 1.1-2.9 Bottles Received: 326

Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 2 of 5

p. 12/19

Pace Analytical
National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table # U271298

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
OCD-7AR	Grab	GW		10/6/20	1330	9	X	X	X	X	X	X	X					-10
MW-76	Grab	GW		10/6/20	1720	9	X	X	X	X	X	X	X					-11
MW-75	Grab	GW		10/6/20	1625	9	X	X	X	X	X	X	X					-12
MW-83	Grab	GW		10/7/20	845	9	X	X	X	X	X	X	X					-13
MW-3	Grab	GW		10/7/20	930	9	X	X	X	X	X	X	X					-14
MW-88	Grab	GW		10/6/20	1255	7	X	X	X	X								-15
MW-22A	Grab	GW		10/6/20	1340	9	X	X	X	X	X	X	X					-16
MW-10	Grab	GW		10/6/20	1445	9	X	X	X	X	X	X	X					-17
MW-123	Grab	GW		10/6/20	1530	9	X	X	X	X	X	X	X					-18
MW-4A	Grab	GW		10/6/20	1200	9	X	X	X	X	X	X	X					-19

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=.9 R3C	Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuer	Date: 10/8/20	Time: 900

Hold: | Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 3 of 5

p. 13/19

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table # 1271298

Acctnum: TRCATX
Template: T140422
Prelogin: P799953
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-5A	Grab	GW		10/6/20	1050	9	x	x	x	x	x	x	x					-20
MW-7A	Grab	GW		10/6/20	940	9	x	x	x	x	x	x	x					-21
OCD-8A	Grab	GW		10/6/20	840	10	x	x	x		x	x	x	x	x			-22
OCD-1R	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x					-23
OCD-2A	Grab	GW		10/7/20	830	7	x	x	x	x								-24
OCD-3	Grab	GW		10/6/20	1640	7	x	x	x	x								-25
OCD-4	Grab	GW		10/6/20	1600	7	x	x	x	x								-26
MW-11A	Grab	GW		10/7/20	915	3					x	x	x					-27
OCD-5	Grab	GW		10/6/20	1520	9	x	x	x	x	x	x	x					-28
MW-87	Grab	GW		10/6/20	1150	7	x	x	x	x								-29

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C	Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuell	Date: 10/8/20	Time: 900

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 5

p 14/19

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table # U271298

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
MW-18A	Grab	GW		10/6/20	1230	8	x	x			x	x	x	x	x			-30
MW-70	Grab	GW		10/6/20	1320	7	x	x	x	x								-31
MW-124	Grab	GW		10/6/20	1405	9	x	x	x	x	x	x	x					-32
DUP-EP-01	Grab	GW		10/6/20	900	9	x	x	x	x	x	x	x					-33
DUP-EP-02	Grab	GW		10/6/20	1100	9	x	x	x	x	x	x	x					-34
DUP-EP-03	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x					-35
EB-EP-01	Grab	GW		10/6/20	1450	9	x	x	x	x	x	x	x					-36
EB-EP-02	Grab	GW		10/6/20	1420	9	x	x	x	x	x	x	x					-37
EB-EP-03	Grab	GW		10/6/20	1110	9	x	x	x	x	x	x	x					-38
EB-EP-04	Grab	GW		10/6/20	1045	9	x	x	x	x	x	x	x					-39

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400		2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2=.9 °C Bottles Received: 326	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tirey	Date: 10/8/20 Time: 900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trcsolutions.com

Project Description: EP Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-EP

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # EP (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	VOC - 40mlAmb-HCl-Blk	Remarks	Sample # (lab only)
Trip Blank-EP-01	Grab	GW		10/6/20	—	1										x		-40
Trip Blank-EP-02	Grab	GW		10/6/20	—	1										x		-41
Trip Blank-EP-03	Grab	GW		10/7/20	—	1										x		

Chain of Custody Page 5 of 5

p-15/19

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L #

Table # U277298

Acctnum: TRCATX

Template: T140422

Prelogin: P799953

TSR: 526

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH TBR)
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3 °C Bottles Received: 326
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Olivia Tuce	Date: 10/8/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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Hailey Melson

Pace Analytical®
National Center for Testing & Innovation

Login #: L1271298	Client: TRCATX	Date: 10/08/2020	Evaluated by: Olivia S.

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
x	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

Received 1 Blue top vial broken for MW-87

Client informed by:	Call	Email	Voice Mail	Date: 10/09/20	Time: 18:08
TSR Initials: CM	Client Contact:				

Login Instructions:

Run from intact vials.

Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 03, 2021

Revised Report

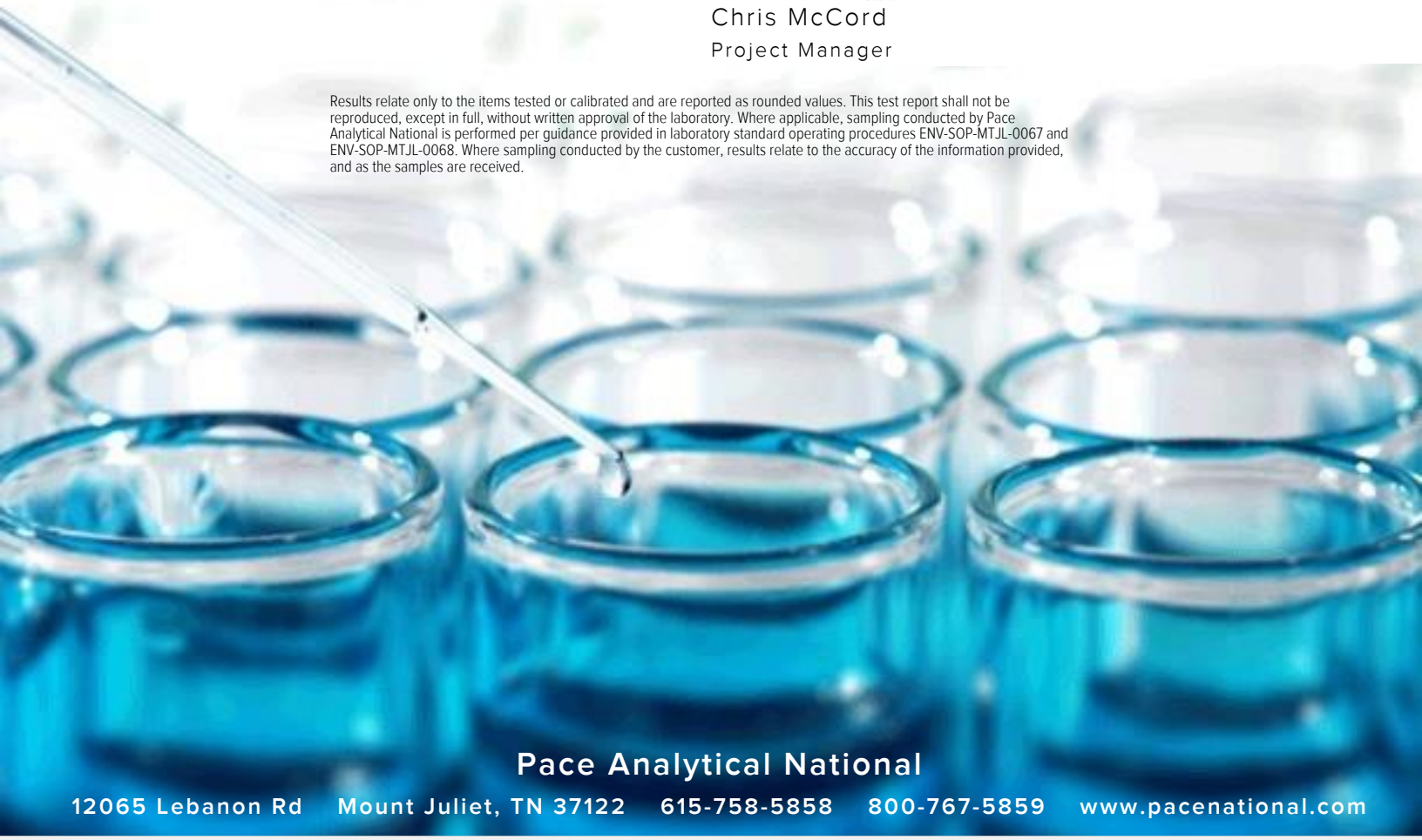
TRC Solutions - Austin, TX

Sample Delivery Group:	L1271301
Samples Received:	10/08/2020
Project Number:	330538.0000.0000
Description:	REST Fall 2020
Site:	REST - NAVAJO-ARTESIA
Report To:	Julie Speer
	505 E. Huntland Dr, Ste 250
	Austin, TX 78752

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-130 L1271301-01 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 08:55
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:28	10/16/20 20:28	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 17:04	10/14/20 17:04	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/14/20 17:41	10/14/20 17:41	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:14	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:38	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 03:07	10/16/20 03:07	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 04:00	10/17/20 04:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 06:21	DMG	Mt. Juliet, TN

MW-52 L1271301-02 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:40
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	10	10/16/20 20:52	10/16/20 20:52	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1560164	1	10/15/20 23:14	10/16/20 04:50	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 18:17	10/14/20 18:17	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/14/20 19:13	10/14/20 19:13	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:38	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:18	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:17	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:41	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 03:29	10/16/20 03:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 04:20	10/17/20 04:20	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 06:41	DMG	Mt. Juliet, TN

MW-109 L1271301-03 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:34	10/16/20 20:34	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 20:08	10/14/20 20:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	5	10/15/20 11:36	10/15/20 11:36	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:20	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:45	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1561681	10	10/19/20 22:56	10/19/20 22:56	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	10	10/17/20 07:02	10/17/20 07:02	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 07:02	DMG	Mt. Juliet, TN

MW-110 L1271301-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:36	10/16/20 20:36	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 20:45	10/14/20 20:45	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	5	10/15/20 11:50	10/15/20 11:50	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:23	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 23:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 03:51	10/16/20 03:51	BMB	Mt. Juliet, TN

MW-110 L1271301-04 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 04:41	10/17/20 04:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557910	1	10/14/20 07:17	10/15/20 07:22	DMG	Mt. Juliet, TN

MW-134 L1271301-05 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 16:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:37	10/16/20 20:37	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 21:22	10/14/20 21:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/14/20 21:40	10/14/20 21:40	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:43	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/15/20 00:04	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 04:13	10/16/20 04:13	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 19:54	10/16/20 19:54	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 07:08	TJD	Mt. Juliet, TN

MW-115 L1271301-06 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:15
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:38	10/16/20 20:38	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 21:59	10/14/20 21:59	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/14/20 22:17	10/14/20 22:17	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:46	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/15/20 00:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 04:35	10/16/20 04:35	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 05:01	10/17/20 05:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 06:44	TJD	Mt. Juliet, TN

MW-114 L1271301-07 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1558999	1	10/16/20 20:39	10/16/20 20:39	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 22:35	10/14/20 22:35	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/14/20 22:54	10/14/20 22:54	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:49	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/15/20 00:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 04:57	10/16/20 04:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 05:21	10/17/20 05:21	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 07:04	TJD	Mt. Juliet, TN

MW-117 L1271301-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:46	10/16/20 16:46	SDL	Mt. Juliet, TN

MW-117 L1271301-08 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 9056A	WG1557663	1	10/14/20 23:49	10/14/20 23:49	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 00:08	10/15/20 00:08	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:53	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/15/20 00:14	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560012	1	10/16/20 05:19	10/16/20 05:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 20:14	10/16/20 20:14	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 07:28	TJD	Mt. Juliet, TN

MW-118 L1271301-09 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:35
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:48	10/16/20 16:48	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 00:26	10/15/20 00:26	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 00:44	10/15/20 00:44	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/14/20 02:56	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556442	1	10/12/20 12:55	10/15/20 00:17	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560245	1	10/16/20 15:55	10/16/20 15:55	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 20:35	10/16/20 20:35	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 07:49	TJD	Mt. Juliet, TN

MW-119 L1271301-10 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:49	10/16/20 16:49	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 01:03	10/15/20 01:03	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 01:21	10/15/20 01:21	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/15/20 23:46	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560245	1	10/16/20 16:20	10/16/20 16:20	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 20:55	10/16/20 20:55	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 08:09	TJD	Mt. Juliet, TN

MW-136 L1271301-11 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 12:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	5	10/16/20 16:50	10/16/20 16:50	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1560164	1	10/15/20 23:14	10/16/20 04:51	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 01:40	10/15/20 01:40	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 01:58	10/15/20 01:58	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:40	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:21	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:01	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 01:50	10/16/20 01:50	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 21:15	10/16/20 21:15	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 08:29	TJD	Mt. Juliet, TN

MW-126A L1271301-12 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:51	10/16/20 16:51	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 02:17	10/15/20 02:17	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	50	10/15/20 02:35	10/15/20 02:35	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:05	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 02:11	10/16/20 02:11	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 21:36	10/16/20 21:36	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 08:49	TJD	Mt. Juliet, TN

MW-126B L1271301-13 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:50
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:53	10/16/20 16:53	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 03:50	10/15/20 03:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 04:08	10/15/20 04:08	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:09	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 02:32	10/16/20 02:32	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 21:56	10/16/20 21:56	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 09:09	TJD	Mt. Juliet, TN

KWB-1A L1271301-14 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:25
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:54	10/16/20 16:54	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:30	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 04:27	10/15/20 04:27	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 04:45	10/15/20 04:45	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:42	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:24	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 22:16	10/16/20 22:16	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 09:29	TJD	Mt. Juliet, TN

MW-57 L1271301-15 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:55	10/16/20 16:55	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	10	10/15/20 05:04	10/15/20 05:04	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 05:22	10/15/20 05:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 02:52	10/16/20 02:52	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 22:36	10/16/20 22:36	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557497	1	10/13/20 08:37	10/16/20 09:49	TJD	Mt. Juliet, TN

KWB-12A L1271301-16 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:30
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558061	1	10/13/20 14:01	10/13/20 14:38	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	5	10/16/20 18:42	10/16/20 18:42	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:33	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 05:41	10/15/20 05:41	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 05:59	10/15/20 05:59	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:44	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:28	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:29	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 03:13	10/16/20 03:13	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 22:57	10/16/20 22:57	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/13/20 22:26	DMG	Mt. Juliet, TN

KWB-12B L1271301-17 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:15
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	5	10/16/20 18:12	10/16/20 18:12	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:35	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 07:13	10/15/20 07:13	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 06:17	10/15/20 06:17	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:31	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:33	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 03:34	10/16/20 03:34	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 23:17	10/16/20 23:17	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/13/20 22:52	DMG	Mt. Juliet, TN

MW-104 L1271301-18 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 12:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:14	10/16/20 18:14	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 07:31	10/15/20 07:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	10	10/15/20 12:03	10/15/20 12:03	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:37	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 03:54	10/16/20 03:54	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 23:37	10/16/20 23:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/13/20 23:17	DMG	Mt. Juliet, TN

MW-64 L1271301-19 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:26	10/16/20 16:26	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 08:08	10/15/20 08:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	10	10/15/20 08:45	10/15/20 08:45	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:40	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	100	10/16/20 08:02	10/16/20 08:02	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	500	10/17/20 07:22	10/17/20 07:22	BMB	Mt. Juliet, TN

MW-64 L1271301-19 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/13/20 23:43	DMG	Mt. Juliet, TN

MW-102 L1271301-20 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 14:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:30	10/16/20 16:30	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	1	10/15/20 09:22	10/15/20 09:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557663	100	10/15/20 09:40	10/15/20 09:40	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:44	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	100	10/16/20 08:23	10/16/20 08:23	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	100	10/17/20 07:43	10/17/20 07:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	10	10/13/20 07:14	10/14/20 19:13	DMG	Mt. Juliet, TN

MW-66 L1271301-21 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 09:25
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 16:33	10/16/20 16:33	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:36	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/13/20 21:28	10/13/20 21:28	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	5	10/13/20 22:41	10/13/20 22:41	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:47	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:34	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:48	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 04:15	10/16/20 04:15	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	10	10/17/20 08:03	10/17/20 08:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 07:24	TJD	Mt. Juliet, TN

MW-28 L1271301-22 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 11:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:04	10/16/20 18:04	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:37	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/13/20 23:18	10/13/20 23:18	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	50	10/13/20 23:36	10/13/20 23:36	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:49	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:37	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:52	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 04:36	10/16/20 04:36	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	5	10/17/20 08:24	10/17/20 08:24	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 07:45	TJD	Mt. Juliet, TN

MW-60 L1271301-23 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:25
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:05	10/16/20 18:05	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	10	10/14/20 22:53	10/16/20 00:38	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 00:31	10/14/20 00:31	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 00:50	10/14/20 00:50	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:40	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 00:55	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 04:56	10/16/20 04:56	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 05:41	10/17/20 05:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 08:05	TJD	Mt. Juliet, TN

MW-125 L1271301-24 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:50
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:07	10/16/20 18:07	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 01:08	10/14/20 01:08	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 01:27	10/14/20 01:27	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:10	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 05:17	10/16/20 05:17	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 06:01	10/17/20 06:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 08:25	TJD	Mt. Juliet, TN

MW-116 L1271301-25 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/07/20 10:25
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558086	1	10/14/20 01:24	10/14/20 02:47	AEC	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:09	10/16/20 18:09	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 01:47	10/14/20 01:47	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 02:05	10/14/20 02:05	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:14	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 05:37	10/16/20 05:37	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	1	10/17/20 06:22	10/17/20 06:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 08:45	TJD	Mt. Juliet, TN

MW-101 L1271301-26 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 09:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:10	10/16/20 18:10	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 02:23	10/14/20 02:23	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	5	10/14/20 02:42	10/14/20 02:42	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:18	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 05:58	10/16/20 05:58	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/16/20 23:57	10/16/20 23:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561145	50	10/18/20 11:08	10/18/20 11:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 02:42	DMG	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

MW-105 L1271301-27 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:15
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559000	1	10/16/20 18:11	10/16/20 18:11	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 03:00	10/14/20 03:00	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	5	10/14/20 03:19	10/14/20 03:19	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:21	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	50	10/16/20 07:21	10/16/20 07:21	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560699	50	10/17/20 08:44	10/17/20 08:44	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561144	500	10/18/20 15:01	10/18/20 15:01	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	2	10/13/20 07:14	10/14/20 00:34	DMG	Mt. Juliet, TN

MW-61 L1271301-28 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 13:35
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:21	10/15/20 21:21	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 04:14	10/14/20 04:14	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	10	10/15/20 05:17	10/15/20 05:17	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 04:32	10/14/20 04:32	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:25	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	50	10/16/20 07:41	10/16/20 07:41	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	50	10/17/20 04:21	10/17/20 04:21	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/14/20 01:00	DMG	Mt. Juliet, TN

MW-62 L1271301-29 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:35
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:23	10/15/20 21:23	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 04:51	10/14/20 04:51	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	20	10/14/20 05:09	10/14/20 05:09	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556443	1	10/12/20 17:06	10/16/20 01:29	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	20	10/16/20 07:00	10/16/20 07:00	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	20	10/17/20 04:00	10/17/20 04:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	1	10/13/20 07:14	10/14/20 01:25	DMG	Mt. Juliet, TN

MW-23 L1271301-30 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 17:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:25	10/15/20 21:25	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 05:28	10/14/20 05:28	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	10	10/14/20 05:46	10/14/20 05:46	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:06	LAT	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	5	10/12/20 16:13	10/15/20 10:48	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	10	10/16/20 06:39	10/16/20 06:39	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	10	10/17/20 03:39	10/17/20 03:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557498	10	10/13/20 07:14	10/14/20 18:47	DMG	Mt. Juliet, TN

MW-39 L1271301-31 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:26	10/15/20 21:26	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 06:05	10/14/20 06:05	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	20	10/14/20 06:23	10/14/20 06:23	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:09	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560160	1	10/16/20 06:19	10/16/20 06:19	ADM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/17/20 00:18	10/17/20 00:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561145	1	10/18/20 09:58	10/18/20 09:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 03:08	DMG	Mt. Juliet, TN

MW-98 L1271301-32 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:05
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:27	10/15/20 21:27	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 06:42	10/14/20 06:42	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 07:00	10/14/20 07:00	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/15/20 05:35	10/15/20 05:35	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:12	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	20	10/16/20 21:48	10/16/20 21:48	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	50	10/17/20 04:41	10/17/20 04:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 16:40	DMG	Mt. Juliet, TN

MW-106 L1271301-33 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 12:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:28	10/15/20 21:28	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 07:55	10/14/20 07:55	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 08:14	10/14/20 08:14	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/15/20 05:53	10/15/20 05:53	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:16	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	100	10/16/20 23:03	10/16/20 23:03	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	200	10/17/20 05:22	10/17/20 05:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	5	10/13/20 08:38	10/14/20 20:30	DMG	Mt. Juliet, TN

MW-50 L1271301-34 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 11:25
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558062	1	10/13/20 17:20	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	50	10/15/20 22:00	10/15/20 22:00	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 08:32	10/14/20 08:32	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 08:51	10/14/20 08:51	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:19	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560700	1	10/17/20 00:38	10/17/20 00:38	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561145	1	10/18/20 10:21	10/18/20 10:21	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 08:39	DMG	Mt. Juliet, TN

MW-90 L1271301-35 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:45 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:36	10/15/20 21:36	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 09:09	10/14/20 09:09	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 09:27	10/14/20 09:27	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/15/20 06:11	10/15/20 06:11	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:22	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 18:51	10/16/20 18:51	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 01:36	10/17/20 01:36	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 03:59	DMG	Mt. Juliet, TN

MW-96 L1271301-36 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 14:50 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:37	10/15/20 21:37	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 09:46	10/14/20 09:46	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	5	10/14/20 10:41	10/14/20 10:41	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:25	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	50	10/16/20 22:38	10/16/20 22:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	250	10/17/20 05:43	10/17/20 05:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 16:14	DMG	Mt. Juliet, TN

DUP-REST-02 L1271301-37 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 11:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:39	10/15/20 21:39	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 11:55	10/14/20 11:55	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	20	10/14/20 12:13	10/14/20 12:13	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:29	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 19:16	10/16/20 19:16	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 01:57	10/17/20 01:57	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 04:24	DMG	Mt. Juliet, TN

DUP-REST-03 L1271301-38 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:40	10/15/20 21:40	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	10	10/14/20 12:32	10/14/20 12:32	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 12:50	10/14/20 12:50	MSP	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:32	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 19:42	10/16/20 19:42	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 02:17	10/17/20 02:17	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 08:13	DMG	Mt. Juliet, TN

DUP-REST-04 L1271301-39 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/07/20 08:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:41	10/15/20 21:41	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	10	10/14/20 22:53	10/16/20 00:39	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	10	10/14/20 13:09	10/14/20 13:09	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 13:27	10/14/20 13:27	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:57	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:49	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:42	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 20:07	10/16/20 20:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560896	1	10/18/20 06:49	10/18/20 06:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 09:05	TJD	Mt. Juliet, TN

DUP-REST-05 L1271301-40 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 12:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	5	10/15/20 21:42	10/15/20 21:42	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:42	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	1	10/14/20 13:45	10/14/20 13:45	MSP	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557664	100	10/14/20 14:04	10/14/20 14:04	MSP	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 09:59	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:52	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:45	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 20:32	10/16/20 20:32	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 02:37	10/17/20 02:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 05:15	DMG	Mt. Juliet, TN

EB-REST-02 L1271301-41 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 02:20 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:44	10/15/20 21:44	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 00:30	10/15/20 00:30	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:48	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 17:10	10/16/20 17:10	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 00:35	10/17/20 00:35	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 05:40	DMG	Mt. Juliet, TN

EB-REST-03 L1271301-42 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 06:50 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:45	10/15/20 21:45	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 00:48	10/15/20 00:48	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:51	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 17:35	10/16/20 17:35	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 00:55	10/17/20 00:55	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 06:06	DMG	Mt. Juliet, TN

EB-REST-04 L1271301-43 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/07/20 10:45 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:50	10/15/20 21:50	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:43	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 01:06	10/15/20 01:06	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 10:01	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:55	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:55	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 18:01	10/16/20 18:01	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560896	1	10/18/20 04:21	10/18/20 04:21	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 09:25	TJD	Mt. Juliet, TN

EB-REST-05 L1271301-44 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 10:35 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:51	10/15/20 21:51	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	1	10/14/20 22:53	10/16/20 00:44	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 02:00	10/15/20 02:00	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 10:03	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 21:57	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 04:58	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 18:26	10/16/20 18:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 01:16	10/17/20 01:16	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 06:31	DMG	Mt. Juliet, TN

TRIP BLANK-REST-01 L1271301-45 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 00:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/16/20 23:07	10/16/20 23:07	BMB	Mt. Juliet, TN

TRIP BLANK-REST-02 L1271301-46 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/06/20 00:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/16/20 23:28	10/16/20 23:28	BMB	Mt. Juliet, TN

TRIP BLANK-REST-03 L1271301-47 GW

Collected by: Scott Ude / HMI Team | Collected date/time: 10/07/20 00:00 | Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560896	1	10/18/20 04:42	10/18/20 04:42	DWR	Mt. Juliet, TN

TRIP BLANK-REST-04 L1271301-48 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 00:00
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 00:14	10/17/20 00:14	BMB	Mt. Juliet, TN

MW-43 L1271301-49 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 15:10
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:53	10/15/20 21:53	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559474	10	10/14/20 22:53	10/16/20 00:45	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 02:54	10/15/20 02:54	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	10	10/15/20 03:12	10/15/20 03:12	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1556621	1	10/12/20 23:41	10/13/20 10:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1556429	1	10/12/20 11:13	10/12/20 22:00	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 05:01	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	20	10/16/20 22:13	10/16/20 22:13	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	50	10/17/20 05:02	10/17/20 05:02	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561142	500	10/18/20 11:55	10/18/20 11:55	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 15:49	DMG	Mt. Juliet, TN

MW-62R L1271301-50 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 16:20
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:54	10/15/20 21:54	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 03:30	10/15/20 03:30	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	10	10/15/20 03:47	10/15/20 03:47	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 05:05	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 20:57	10/16/20 20:57	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 02:58	10/17/20 02:58	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561142	50	10/18/20 11:32	10/18/20 11:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	10	10/13/20 08:38	10/14/20 19:38	DMG	Mt. Juliet, TN

MW-139 L1271301-51 GW

Collected by: Scott Ude / HMI Team
Collected date/time: 10/06/20 10:55
Received date/time: 10/08/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558063	1	10/13/20 14:42	10/13/20 17:56	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1559002	1	10/15/20 21:56	10/15/20 21:56	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	1	10/15/20 04:05	10/15/20 04:05	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1557662	100	10/15/20 04:23	10/15/20 04:23	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1556445	1	10/12/20 16:13	10/15/20 05:08	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560609	1	10/16/20 21:23	10/16/20 21:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560784	1	10/17/20 03:18	10/17/20 03:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561142	1	10/18/20 10:45	10/18/20 10:45	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 18:22	DMG	Mt. Juliet, TN

MW-113 L1271301-52 GW

Collected by	Collected date/time	Received date/time
	10/07/20 09:00	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558087	1	10/14/20 20:10	10/14/20 22:24	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:00	10/21/20 18:00	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 19:29	10/13/20 19:29	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	20	10/13/20 19:50	10/13/20 19:50	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	1	10/12/20 09:42	10/12/20 23:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 11:08	10/17/20 11:08	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	5	10/17/20 22:36	10/17/20 22:36	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 09:45	TJD	Mt. Juliet, TN

KWB-8 L1271301-53 GW

Collected by	Collected date/time	Received date/time
	10/06/20 12:50	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	20	10/21/20 18:01	10/21/20 18:01	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559964	10	10/15/20 18:37	10/16/20 03:47	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 20:45	10/13/20 20:45	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	100	10/13/20 20:12	10/13/20 20:12	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557453	1	10/12/20 23:17	10/13/20 08:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1557841	1	10/13/20 11:00	10/13/20 14:28	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	1	10/12/20 09:42	10/12/20 23:51	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	200	10/17/20 22:56	10/17/20 22:56	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 17:31	DMG	Mt. Juliet, TN

RA-4798 L1271301-54 GW

Collected by	Collected date/time	Received date/time
	10/06/20 13:15	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:03	10/21/20 18:03	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 20:56	10/13/20 20:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	20	10/13/20 21:06	10/13/20 21:06	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1559507	1	10/15/20 21:39	10/16/20 20:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 18:28	10/17/20 18:28	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1572494	1	11/06/20 17:03	11/06/20 17:03	GLN	Mt. Juliet, TN

RA-4196 L1271301-55 GW

Collected by	Collected date/time	Received date/time
	10/06/20 13:30	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558091	1	10/13/20 19:30	10/13/20 21:36	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:05	10/21/20 18:05	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 21:28	10/13/20 21:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	20	10/13/20 21:39	10/13/20 21:39	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1559507	1	10/15/20 21:39	10/16/20 20:52	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 18:49	10/17/20 18:49	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1572494	1	11/06/20 17:23	11/06/20 17:23	GLN	Mt. Juliet, TN

KWB-7 L1271301-56 GW

Collected by | Collected date/time 10/06/20 12:00 | Received date/time 10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558083	1	10/13/20 19:28	10/13/20 23:02	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:12	10/21/20 18:12	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559964	1	10/15/20 18:37	10/16/20 03:48	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 21:50	10/13/20 21:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	20	10/13/20 22:01	10/13/20 22:01	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557453	1	10/12/20 23:17	10/13/20 08:50	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1557841	1	10/13/20 11:00	10/13/20 14:36	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	5	10/12/20 09:42	10/13/20 00:19	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 19:09	10/17/20 19:09	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 14:32	DMG	Mt. Juliet, TN

MW-135 L1271301-57 GW

Collected by | Collected date/time 10/07/20 10:30 | Received date/time 10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558087	1	10/14/20 20:10	10/14/20 22:24	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	5	10/21/20 18:14	10/21/20 18:14	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 22:12	10/13/20 22:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	100	10/13/20 22:22	10/13/20 22:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	5	10/12/20 09:42	10/13/20 00:29	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 11:33	10/17/20 11:33	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 19:30	10/17/20 19:30	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 10:06	TJD	Mt. Juliet, TN

KWB-11A L1271301-58 GW

Collected by | Collected date/time 10/06/20 10:25 | Received date/time 10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:15	10/21/20 18:15	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559964	1	10/15/20 18:37	10/16/20 03:53	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 22:55	10/13/20 22:55	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	100	10/13/20 23:06	10/13/20 23:06	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557453	1	10/12/20 23:17	10/13/20 08:52	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1557841	1	10/13/20 11:00	10/13/20 14:39	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	1	10/12/20 09:42	10/12/20 21:30	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 11:59	10/17/20 11:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 19:50	10/17/20 19:50	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 14:58	DMG	Mt. Juliet, TN

KWB-11B L1271301-59 GW

Collected by | Collected date/time 10/06/20 11:10 | Received date/time 10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558089	1	10/13/20 18:18	10/13/20 19:46	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:16	10/21/20 18:16	SDL	Mt. Juliet, TN
Wet Chemistry by Method 4500CN E-2011	WG1559964	1	10/15/20 18:37	10/16/20 03:54	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 23:17	10/13/20 23:17	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	100	10/13/20 23:28	10/13/20 23:28	ELN	Mt. Juliet, TN
Mercury by Method 7470A	WG1557453	1	10/12/20 23:17	10/13/20 08:54	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1557841	1	10/13/20 11:00	10/13/20 14:43	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	5	10/12/20 09:42	10/13/20 00:33	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 12:25	10/17/20 12:25	BMB	Mt. Juliet, TN

KWB-11B L1271301-59 GW

Collected by	Collected date/time	Received date/time
	10/06/20 11:10	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 20:11	10/17/20 20:11	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557908	1	10/13/20 08:38	10/14/20 15:23	DMG	Mt. Juliet, TN

MW-29 L1271301-60 GW

Collected by	Collected date/time	Received date/time
	10/07/20 09:25	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558087	1	10/14/20 20:10	10/14/20 22:24	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:17	10/21/20 18:17	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/13/20 23:38	10/13/20 23:38	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	100	10/13/20 23:49	10/13/20 23:49	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	1	10/12/20 09:42	10/12/20 17:10	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 12:51	10/17/20 12:51	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 20:32	10/17/20 20:32	JCP	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 10:26	TJD	Mt. Juliet, TN

DUP-REST-01 L1271301-61 GW

Collected by	Collected date/time	Received date/time
	10/07/20 08:00	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558087	1	10/14/20 20:10	10/14/20 22:24	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:19	10/21/20 18:19	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/14/20 00:11	10/14/20 00:11	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	20	10/14/20 00:22	10/14/20 00:22	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	5	10/12/20 09:42	10/13/20 00:36	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 13:16	10/17/20 13:16	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1560897	1	10/17/20 20:52	10/17/20 20:52	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561763	10	10/19/20 21:37	10/19/20 21:37	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 10:46	TJD	Mt. Juliet, TN

EB-REST-01 L1271301-62 GW

Collected by	Collected date/time	Received date/time
	10/07/20 09:20	10/09/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1558087	1	10/14/20 20:10	10/14/20 22:24	VRP	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1560789	1	10/21/20 18:20	10/21/20 18:20	SDL	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1558271	1	10/14/20 00:00	10/14/20 00:00	ELN	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1557632	1	10/12/20 09:42	10/13/20 00:07	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1560698	1	10/17/20 10:42	10/17/20 10:42	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1561357	1	10/19/20 03:36	10/19/20 03:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1557911	1	10/14/20 07:18	10/15/20 11:06	TJD	Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 10/22/20 18:12
Level II Report - Version 2: 11/12/20 20:53
Level II Report - Version 3: 12/31/20 11:40

Project Narrative

Revised report to correct the Benzene result initially reported on samples RA-4798(-54) and RA-4196(-55). An out of hold reanalysis is now reporting due to carry-over contamination detected for Benzene in the first analysis. A re-sample of these two samples reported under L1283074 also confirms the Non-detect results for Benzene.

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1271301-03	MW-109	3511/8015, 8015D/GRO
L1271301-20	MW-102	3511/8015
L1271301-30	MW-23	3511/8015
L1271301-31	MW-39	3511/8015
L1271301-33	MW-106	3511/8015, 8015D/GRO
L1271301-36	MW-96	3511/8015, 8015D/GRO
L1271301-49	MW-43	3511/8015, 8015D/GRO
L1271301-50	MW-62R	8015D/GRO
L1271301-53	KWB-8	3511/8015

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2430		3.75	13.3	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.959		0.0500	0.100	1	10/16/2020 20:28	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	188		37.9	100	100	10/14/2020 17:41	WG1557663
Fluoride	0.758		0.0640	0.150	1	10/14/2020 17:04	WG1557663
Sulfate	882		59.4	500	100	10/14/2020 17:41	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00374		0.000735	0.00200	1	10/14/2020 02:14	WG1556442
Barium	0.0173	J	0.00778	0.0200	1	10/14/2020 02:14	WG1556442
Calcium	242		0.480	1.00	1	10/14/2020 02:14	WG1556442
Chromium	0.00174	J	0.00149	0.00200	1	10/14/2020 02:14	WG1556442
Iron	0.0826	J	0.0489	0.100	1	10/14/2020 02:14	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:14	WG1556442
Manganese	0.101		0.00132	0.00500	1	10/14/2020 02:14	WG1556442
Potassium	0.648	J	0.534	2.00	1	10/14/2020 02:14	WG1556442
Selenium	0.00581		0.000657	0.00200	1	10/14/2020 02:14	WG1556442
Sodium	285		0.630	2.00	1	10/14/2020 23:38	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 03:07	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*10/16/2020 03:07*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 04:00	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 04:00	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 04:00	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 04:00	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 04:00	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 04:00	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 04:00	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 04:00	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 04:00	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 04:00	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 04:00	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 04:00	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 04:00	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 04:00	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 04:00	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 04:00	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 04:00	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 04:00	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 04:00	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 04:00	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 04:00	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 04:00	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 04:00	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 04:00	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 04:00	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 04:00	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 04:00	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 04:00	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 04:00	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 04:00	WG1560699
Methyl tert-butyl ether	0.00328		0.000101	0.00100	1	10/17/2020 04:00	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 04:00	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 04:00	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 04:00	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 04:00	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 04:00	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 04:00	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 04:00	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 04:00	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 04:00	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 04:00	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 04:00	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 04:00	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 04:00	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 04:00	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 04:00	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 04:00	WG1560699
(S) Toluene-d8	*98.3*			*80.0-120*		*10/17/2020 04:00*	WG1560699
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*		*10/17/2020 04:00*	WG1560699
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*10/17/2020 04:00*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.676		0.0247	0.100	1	10/15/2020 06:21	WG1557910
(S) o-Terphenyl	*84.2*			*31.0-160*		*10/15/2020 06:21*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2720		3.75	13.3	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	15.3	V	0.500	1.00	10	10/16/2020 20:52	WG1558999

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 04:50	WG1560164

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	195		37.9	100	100	10/14/2020 19:13	WG1557663
Fluoride	1.62		0.0640	0.150	1	10/14/2020 18:17	WG1557663
Sulfate	1110		59.4	500	100	10/14/2020 19:13	WG1557663

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:38	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.772		0.0254	0.200	1	10/12/2020 21:18	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00361		0.000735	0.00200	1	10/14/2020 02:17	WG1556442
Barium	0.0123	J	0.00778	0.0200	1	10/14/2020 02:17	WG1556442
Cadmium	U		0.000478	0.00100	1	10/14/2020 02:17	WG1556442
Calcium	223		0.480	1.00	1	10/14/2020 02:17	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:17	WG1556442
Cobalt	0.000636	J	0.000477	0.00200	1	10/14/2020 02:17	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:17	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:17	WG1556442
Manganese	0.0661		0.00132	0.00500	1	10/14/2020 02:17	WG1556442
Nickel	0.0304		0.000952	0.00200	1	10/14/2020 02:17	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:17	WG1556442
Selenium	0.00578		0.000657	0.00200	1	10/14/2020 02:17	WG1556442
Sodium	332		0.630	2.00	1	10/14/2020 23:41	WG1556442
Uranium	0.0125	J	0.00754	0.0200	1	10/14/2020 02:17	WG1556442
Vanadium	0.0240		0.000986	0.00500	1	10/14/2020 02:17	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 03:29	WG1560012

Received by OCD: 6/23/2021 4:05:29 PM

MW-32
Collected date/time: 10/07/20 09:40
L1271301

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/16/2020 03:29*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 04:20	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 04:20	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 04:20	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 04:20	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 04:20	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 04:20	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 04:20	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 04:20	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 04:20	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 04:20	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 04:20	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 04:20	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 04:20	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 04:20	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 04:20	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 04:20	WG1560699
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 04:20	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 04:20	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 04:20	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 04:20	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 04:20	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 04:20	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 04:20	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 04:20	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 04:20	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 04:20	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 04:20	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 04:20	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 04:20	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 04:20	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 04:20	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 04:20	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 04:20	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 04:20	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 04:20	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 04:20	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 04:20	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 04:20	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 04:20	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 04:20	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 04:20	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 04:20	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 04:20	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 04:20	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 04:20	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 04:20	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 04:20	WG1560699
(S) Toluene-d8	*98.9*			*80.0-120*		*10/17/2020 04:20*	WG1560699
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*10/17/2020 04:20*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.8*			*70.0-130*		*10/17/2020 04:20*	WG1560699

Released to Imaging: 11/21/2023 10:16:55 AM

MW-32
Collected date/time: 10/07/20 09:40
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.282		0.0247	0.100	1	10/15/2020 06:41	WG1557910
(S) o-Terphenyl	*82.6*			*31.0-160*		*10/15/2020 06:41*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1990		3.75	13.3	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:34	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	200		1.90	5.00	5	10/15/2020 11:36	WG1557663
Fluoride	1.86		0.0640	0.150	1	10/14/2020 20:08	WG1557663
Sulfate	376		2.97	25.0	5	10/15/2020 11:36	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00193	J	0.000735	0.00200	1	10/14/2020 02:20	WG1556442
Barium	0.0713		0.00778	0.0200	1	10/14/2020 02:20	WG1556442
Calcium	70.2		0.480	1.00	1	10/14/2020 02:20	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:20	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:20	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:20	WG1556442
Manganese	0.0544		0.00132	0.00500	1	10/14/2020 02:20	WG1556442
Potassium	0.700	J	0.534	2.00	1	10/14/2020 02:20	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:20	WG1556442
Sodium	430		0.630	2.00	1	10/14/2020 23:45	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.77		0.314	1.00	10	10/19/2020 22:56	WG1561681
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/19/2020 22:56*	WG1561681

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	10/17/2020 07:02	WG1560699
Benzene	1.11		0.000941	0.0100	10	10/17/2020 07:02	WG1560699
Bromodichloromethane	U		0.00136	0.0100	10	10/17/2020 07:02	WG1560699
Bromoform	U		0.00129	0.0100	10	10/17/2020 07:02	WG1560699
Bromomethane	U		0.00605	0.0500	10	10/17/2020 07:02	WG1560699
n-Butylbenzene	0.00220	J	0.00157	0.0100	10	10/17/2020 07:02	WG1560699
sec-Butylbenzene	0.00621	J	0.00125	0.0100	10	10/17/2020 07:02	WG1560699
Carbon disulfide	U		0.000962	0.0100	10	10/17/2020 07:02	WG1560699
Carbon tetrachloride	U		0.00128	0.0100	10	10/17/2020 07:02	WG1560699
Chlorobenzene	U		0.00116	0.0100	10	10/17/2020 07:02	WG1560699
Chlorodibromomethane	U		0.00140	0.0100	10	10/17/2020 07:02	WG1560699
Chloroethane	U		0.00192	0.0500	10	10/17/2020 07:02	WG1560699
Chloroform	U		0.00111	0.0500	10	10/17/2020 07:02	WG1560699
Chloromethane	U		0.00960	0.0250	10	10/17/2020 07:02	WG1560699
1,2-Dibromoethane	U		0.00126	0.0100	10	10/17/2020 07:02	WG1560699
1,1-Dichloroethane	U		0.00100	0.0100	10	10/17/2020 07:02	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000819	0.0100	10	10/17/2020 07:02	WG1560699
1,1-Dichloroethene	U		0.00188	0.0100	10	10/17/2020 07:02	WG1560699
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	10/17/2020 07:02	WG1560699
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	10/17/2020 07:02	WG1560699
1,2-Dichloropropane	U		0.00149	0.0100	10	10/17/2020 07:02	WG1560699
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	10/17/2020 07:02	WG1560699
trans-1,3-Dichloropropene	U	J4	0.00118	0.0100	10	10/17/2020 07:02	WG1560699
Ethylbenzene	0.00637	J	0.00137	0.0100	10	10/17/2020 07:02	WG1560699
Isopropylbenzene	0.0619		0.00105	0.0100	10	10/17/2020 07:02	WG1560699
p-Isopropyltoluene	U		0.00120	0.0100	10	10/17/2020 07:02	WG1560699
2-Butanone (MEK)	U		0.0119	0.100	10	10/17/2020 07:02	WG1560699
2-Hexanone	U		0.00787	0.100	10	10/17/2020 07:02	WG1560699
Methylene Chloride	U		0.00430	0.0500	10	10/17/2020 07:02	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	10/17/2020 07:02	WG1560699
Methyl tert-butyl ether	U		0.00101	0.0100	10	10/17/2020 07:02	WG1560699
Naphthalene	U		0.0100	0.0500	10	10/17/2020 07:02	WG1560699
n-Propylbenzene	0.0463		0.000993	0.0100	10	10/17/2020 07:02	WG1560699
Styrene	U		0.00118	0.0100	10	10/17/2020 07:02	WG1560699
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	10/17/2020 07:02	WG1560699
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	10/17/2020 07:02	WG1560699
Tetrachloroethene	U		0.00300	0.0100	10	10/17/2020 07:02	WG1560699
Toluene	0.0123		0.00278	0.0100	10	10/17/2020 07:02	WG1560699
1,1,1-Trichloroethane	U		0.00149	0.0100	10	10/17/2020 07:02	WG1560699
1,1,2-Trichloroethane	U		0.00158	0.0100	10	10/17/2020 07:02	WG1560699
Trichloroethene	U		0.00190	0.0100	10	10/17/2020 07:02	WG1560699
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	10/17/2020 07:02	WG1560699
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	10/17/2020 07:02	WG1560699
Vinyl chloride	U		0.00234	0.0100	10	10/17/2020 07:02	WG1560699
o-Xylene	U		0.00174	0.0100	10	10/17/2020 07:02	WG1560699
m&p-Xylene	0.0114	J	0.00430	0.0200	10	10/17/2020 07:02	WG1560699
Xylenes, Total	0.0114	J	0.00174	0.0300	10	10/17/2020 07:02	WG1560699
(S) Toluene-d8	*104*			*80.0-120*		*10/17/2020 07:02*	WG1560699
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*10/17/2020 07:02*	WG1560699
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*		*10/17/2020 07:02*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.33		0.0247	0.100	1	10/15/2020 07:02	WG1557910
(S) o-Terphenyl	*112*			*31.0-160*		*10/15/2020 07:02*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1290		2.82	10.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 20:36	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	92.9		0.379	1.00	1	10/14/2020 20:45	WG1557663
Fluoride	1.32		0.0640	0.150	1	10/14/2020 20:45	WG1557663
Sulfate	401		2.97	25.0	5	10/15/2020 11:50	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0386		0.000735	0.00200	1	10/14/2020 02:23	WG1556442
Barium	0.0453		0.00778	0.0200	1	10/14/2020 02:23	WG1556442
Calcium	95.9		0.480	1.00	1	10/14/2020 02:23	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:23	WG1556442
Iron	0.995		0.0489	0.100	1	10/14/2020 02:23	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:23	WG1556442
Manganese	2.01		0.00132	0.00500	1	10/14/2020 02:23	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:23	WG1556442
Selenium	U		0.000657	0.00200	1	10/14/2020 02:23	WG1556442
Sodium	252		0.630	2.00	1	10/14/2020 23:48	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.406		0.0314	0.100	1	10/16/2020 03:51	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*93.8*			*78.0-120*		*10/16/2020 03:51*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 04:41	WG1560699
Benzene	0.000146	J	0.0000941	0.00100	1	10/17/2020 04:41	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 04:41	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 04:41	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 04:41	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 04:41	WG1560699
sec-Butylbenzene	0.00114		0.000125	0.00100	1	10/17/2020 04:41	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 04:41	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 04:41	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 04:41	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 04:41	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 04:41	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 04:41	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 04:41	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 04:41	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 04:41	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 04:41	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 04:41	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 04:41	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 04:41	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 04:41	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 04:41	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 04:41	WG1560699
Ethylbenzene	0.000175	J	0.000137	0.00100	1	10/17/2020 04:41	WG1560699
Isopropylbenzene	0.00157		0.000105	0.00100	1	10/17/2020 04:41	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 04:41	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 04:41	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 04:41	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 04:41	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 04:41	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 04:41	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 04:41	WG1560699
n-Propylbenzene	0.000270	J	0.0000993	0.00100	1	10/17/2020 04:41	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 04:41	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 04:41	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 04:41	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 04:41	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 04:41	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 04:41	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 04:41	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 04:41	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 04:41	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 04:41	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 04:41	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 04:41	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 04:41	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 04:41	WG1560699
(S) Toluene-d8	*104*			*80.0-120*		*10/17/2020 04:41*	WG1560699
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*10/17/2020 04:41*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*10/17/2020 04:41*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.721		0.0247	0.100	1	10/15/2020 07:22	WG1557910
(S) o-Terphenyl	*94.2*			*31.0-160*		*10/15/2020 07:22*	WG1557910

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4950		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.37		0.0500	0.100	1	10/16/2020 20:37	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	349		37.9	100	100	10/14/2020 21:40	WG1557663
Fluoride	1.01		0.0640	0.150	1	10/14/2020 21:22	WG1557663
Sulfate	2700		59.4	500	100	10/14/2020 21:40	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00362		0.000735	0.00200	1	10/14/2020 02:43	WG1556442
Barium	0.0101	J	0.00778	0.0200	1	10/14/2020 02:43	WG1556442
Calcium	501		0.480	1.00	1	10/14/2020 02:43	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:43	WG1556442
Iron	0.0916	J	0.0489	0.100	1	10/14/2020 02:43	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:43	WG1556442
Manganese	0.0370		0.00132	0.00500	1	10/14/2020 02:43	WG1556442
Potassium	1.67	J	0.534	2.00	1	10/14/2020 02:43	WG1556442
Selenium	0.00592		0.000657	0.00200	1	10/14/2020 02:43	WG1556442
Sodium	243		0.630	2.00	1	10/15/2020 00:04	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 04:13	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*		*10/16/2020 04:13*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 19:54	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 19:54	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 19:54	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 19:54	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 19:54	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 19:54	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 19:54	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 19:54	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 19:54	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 19:54	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 19:54	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 19:54	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 19:54	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 19:54	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 19:54	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 19:54	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 19:54	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 19:54	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 19:54	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 19:54	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 19:54	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 19:54	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 19:54	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 19:54	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 19:54	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 19:54	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 19:54	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 19:54	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 19:54	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 19:54	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 19:54	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 19:54	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 19:54	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 19:54	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 19:54	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 19:54	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 19:54	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 19:54	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 19:54	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 19:54	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 19:54	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 19:54	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 19:54	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 19:54	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 19:54	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 19:54	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 19:54	WG1560700
(S) Toluene-d8	*102*			*80.0-120*		*10/16/2020 19:54*	WG1560700
(S) 4-Bromofluorobenzene	*97.5*			*77.0-126*		*10/16/2020 19:54*	WG1560700
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*		*10/16/2020 19:54*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.107	B	0.0247	0.100	1	10/16/2020 07:08	WG1557497
(S) o-Terphenyl	*71.1*			*31.0-160*		*10/16/2020 07:08*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4590		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.99		0.0500	0.100	1	10/16/2020 20:38	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	406		37.9	100	100	10/14/2020 22:17	WG1557663
Fluoride	1.73		0.0640	0.150	1	10/14/2020 21:59	WG1557663
Sulfate	2350		59.4	500	100	10/14/2020 22:17	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00435		0.000735	0.00200	1	10/14/2020 02:46	WG1556442
Barium	0.0112	J	0.00778	0.0200	1	10/14/2020 02:46	WG1556442
Calcium	467		0.480	1.00	1	10/14/2020 02:46	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:46	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:46	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:46	WG1556442
Manganese	0.0983		0.00132	0.00500	1	10/14/2020 02:46	WG1556442
Potassium	U		0.534	2.00	1	10/14/2020 02:46	WG1556442
Selenium	0.00844		0.000657	0.00200	1	10/14/2020 02:46	WG1556442
Sodium	179		0.630	2.00	1	10/15/2020 00:07	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 04:35	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/16/2020 04:35*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:01	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:01	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:01	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:01	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:01	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:01	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:01	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:01	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 05:01	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:01	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:01	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:01	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:01	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:01	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:01	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:01	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:01	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:01	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:01	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:01	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:01	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:01	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 05:01	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:01	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 05:01	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:01	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:01	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:01	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:01	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:01	WG1560699
Methyl tert-butyl ether	0.00364		0.000101	0.00100	1	10/17/2020 05:01	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 05:01	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 05:01	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 05:01	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:01	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:01	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:01	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 05:01	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 05:01	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:01	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:01	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:01	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:01	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:01	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:01	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:01	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:01	WG1560699
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 05:01*	WG1560699
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*		*10/17/2020 05:01*	WG1560699
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*10/17/2020 05:01*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.222	B	0.0247	0.100	1	10/15/2020 06:44	WG1557911
(S) o-Terphenyl	*91.6*			*31.0-160*		*10/15/2020 06:44*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3300		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.110		0.0500	0.100	1	10/16/2020 20:39	WG1558999

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	233		37.9	100	100	10/14/2020 22:54	WG1557663
Fluoride	2.07		0.0640	0.150	1	10/14/2020 22:35	WG1557663
Sulfate	1590		59.4	500	100	10/14/2020 22:54	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00400		0.000735	0.00200	1	10/14/2020 02:49	WG1556442
Barium	0.0131	J	0.00778	0.0200	1	10/14/2020 02:49	WG1556442
Calcium	528		0.480	1.00	1	10/14/2020 02:49	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:49	WG1556442
Iron	U		0.0489	0.100	1	10/14/2020 02:49	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:49	WG1556442
Manganese	0.925		0.00132	0.00500	1	10/14/2020 02:49	WG1556442
Potassium	2.37		0.534	2.00	1	10/14/2020 02:49	WG1556442
Selenium	0.00293		0.000657	0.00200	1	10/14/2020 02:49	WG1556442
Sodium	119		0.630	2.00	1	10/15/2020 00:10	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 04:57	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*78.0-120*		*10/16/2020 04:57*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:21	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 05:21	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:21	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:21	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:21	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:21	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 05:21	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:21	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 05:21	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:21	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:21	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:21	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:21	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:21	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:21	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:21	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:21	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:21	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:21	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:21	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:21	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:21	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 05:21	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 05:21	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 05:21	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:21	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:21	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:21	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:21	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:21	WG1560699
Methyl tert-butyl ether	0.0112		0.000101	0.00100	1	10/17/2020 05:21	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 05:21	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 05:21	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 05:21	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:21	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:21	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:21	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 05:21	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 05:21	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:21	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:21	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:21	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:21	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:21	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:21	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 05:21	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 05:21	WG1560699
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 05:21*	WG1560699
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*		*10/17/2020 05:21*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*10/17/2020 05:21*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.663		0.0247	0.100	1	10/15/2020 07:04	WG1557911
(S) o-Terphenyl	*91.6*			*31.0-160*		*10/15/2020 07:04*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3870	J3	5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.05		0.0500	0.100	1	10/16/2020 16:46	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	271		37.9	100	100	10/15/2020 00:08	WG1557663
Fluoride	3.25		0.0640	0.150	1	10/14/2020 23:49	WG1557663
Sulfate	2030		59.4	500	100	10/15/2020 00:08	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00255		0.000735	0.00200	1	10/14/2020 02:53	WG1556442
Barium	0.0110	J	0.00778	0.0200	1	10/14/2020 02:53	WG1556442
Calcium	587		0.480	1.00	1	10/14/2020 02:53	WG1556442
Chromium	U		0.00149	0.00200	1	10/14/2020 02:53	WG1556442
Iron	0.132		0.0489	0.100	1	10/14/2020 02:53	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:53	WG1556442
Manganese	0.00353	J	0.00132	0.00500	1	10/14/2020 02:53	WG1556442
Potassium	6.68		0.534	2.00	1	10/14/2020 02:53	WG1556442
Selenium	0.0123		0.000657	0.00200	1	10/14/2020 02:53	WG1556442
Sodium	133		0.630	2.00	1	10/15/2020 00:14	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 05:19	WG1560012
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*78.0-120*		*10/16/2020 05:19*	WG1560012

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 20:14	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 20:14	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 20:14	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 20:14	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 20:14	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 20:14	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 20:14	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 20:14	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 20:14	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 20:14	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 20:14	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 20:14	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 20:14	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 20:14	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 20:14	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 20:14	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 20:14	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 20:14	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 20:14	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 20:14	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 20:14	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 20:14	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 20:14	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 20:14	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 20:14	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 20:14	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 20:14	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 20:14	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 20:14	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 20:14	WG1560700
Methyl tert-butyl ether	0.00195		0.000101	0.00100	1	10/16/2020 20:14	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 20:14	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 20:14	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 20:14	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 20:14	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 20:14	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 20:14	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 20:14	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 20:14	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 20:14	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 20:14	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 20:14	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 20:14	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 20:14	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 20:14	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 20:14	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 20:14	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 20:14*	WG1560700
(S) 4-Bromofluorobenzene	*98.9*			*77.0-126*		*10/16/2020 20:14*	WG1560700
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*10/16/2020 20:14*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0997	B J	0.0247	0.100	1	10/16/2020 07:28	WG1557497
(S) o-Terphenyl	*64.2*			*31.0-160*		*10/16/2020 07:28*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4640		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.03		0.0500	0.100	1	10/16/2020 16:48	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	262		37.9	100	100	10/15/2020 00:44	WG1557663
Fluoride	5.06		0.0640	0.150	1	10/15/2020 00:26	WG1557663
Sulfate	2600		59.4	500	100	10/15/2020 00:44	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00770		0.000735	0.00200	1	10/14/2020 02:56	WG1556442
Barium	0.0149	J	0.00778	0.0200	1	10/14/2020 02:56	WG1556442
Calcium	558		0.480	1.00	1	10/14/2020 02:56	WG1556442
Chromium	0.00230		0.00149	0.00200	1	10/14/2020 02:56	WG1556442
Iron	0.249		0.0489	0.100	1	10/14/2020 02:56	WG1556442
Lead	U		0.00249	0.00500	1	10/14/2020 02:56	WG1556442
Manganese	0.00273	J	0.00132	0.00500	1	10/14/2020 02:56	WG1556442
Potassium	3.07		0.534	2.00	1	10/14/2020 02:56	WG1556442
Selenium	0.0126		0.000657	0.00200	1	10/14/2020 02:56	WG1556442
Sodium	178		0.630	2.00	1	10/15/2020 00:17	WG1556442

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 15:55	WG1560245
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*10/16/2020 15:55*	WG1560245

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 20:35	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 20:35	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 20:35	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 20:35	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 20:35	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 20:35	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 20:35	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 20:35	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 20:35	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 20:35	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 20:35	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 20:35	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 20:35	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 20:35	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 20:35	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 20:35	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 20:35	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 20:35	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 20:35	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 20:35	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 20:35	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 20:35	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 20:35	WG1560700
Ethylbenzene	0.000149	J	0.000137	0.00100	1	10/16/2020 20:35	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 20:35	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 20:35	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 20:35	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 20:35	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 20:35	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 20:35	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 20:35	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 20:35	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 20:35	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 20:35	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 20:35	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 20:35	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 20:35	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 20:35	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 20:35	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 20:35	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 20:35	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 20:35	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 20:35	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 20:35	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 20:35	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 20:35	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 20:35	WG1560700
(S) Toluene-d8	*102*			*80.0-120*		*10/16/2020 20:35*	WG1560700
(S) 4-Bromofluorobenzene	*96.1*			*77.0-126*		*10/16/2020 20:35*	WG1560700
(S) 1,2-Dichloroethane-d4	*97.7*			*70.0-130*		*10/16/2020 20:35*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0817	B J	0.0247	0.100	1	10/16/2020 07:49	WG1557497
(S) o-Terphenyl	*72.6*			*31.0-160*		*10/16/2020 07:49*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4420		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.106		0.0500	0.100	1	10/16/2020 16:49	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	298		37.9	100	100	10/15/2020 01:21	WG1557663
Fluoride	1.39		0.0640	0.150	1	10/15/2020 01:03	WG1557663
Sulfate	2490		59.4	500	100	10/15/2020 01:21	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00451		0.000735	0.00200	1	10/15/2020 23:46	WG1556443
Barium	0.0101	J	0.00778	0.0200	1	10/15/2020 23:46	WG1556443
Calcium	641		0.480	1.00	1	10/15/2020 23:46	WG1556443
Chromium	0.00163	J	0.00149	0.00200	1	10/15/2020 23:46	WG1556443
Iron	0.0836	J	0.0489	0.100	1	10/15/2020 23:46	WG1556443
Lead	U		0.00249	0.00500	1	10/15/2020 23:46	WG1556443
Manganese	0.0114	B	0.00132	0.00500	1	10/15/2020 23:46	WG1556443
Potassium	0.832	J	0.534	2.00	1	10/15/2020 23:46	WG1556443
Selenium	0.00422		0.000657	0.00200	1	10/15/2020 23:46	WG1556443
Sodium	200	V	0.630	2.00	1	10/15/2020 23:46	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 16:20	WG1560245
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*10/16/2020 16:20*	WG1560245

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 20:55	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 20:55	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 20:55	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 20:55	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 20:55	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 20:55	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 20:55	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 20:55	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 20:55	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 20:55	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 20:55	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 20:55	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 20:55	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 20:55	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 20:55	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 20:55	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 20:55	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 20:55	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 20:55	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 20:55	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 20:55	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 20:55	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 20:55	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 20:55	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 20:55	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 20:55	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 20:55	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 20:55	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 20:55	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 20:55	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 20:55	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 20:55	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 20:55	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 20:55	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 20:55	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 20:55	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 20:55	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 20:55	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 20:55	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 20:55	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 20:55	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 20:55	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 20:55	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 20:55	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 20:55	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 20:55	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 20:55	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 20:55*	WG1560700
(S) 4-Bromofluorobenzene	*93.3*			*77.0-126*		*10/16/2020 20:55*	WG1560700
(S) 1,2-Dichloroethane-d4	*93.2*			*70.0-130*		*10/16/2020 20:55*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.215	B	0.0247	0.100	1	10/16/2020 08:09	WG1557497
(S) o-Terphenyl	*64.2*			*31.0-160*		*10/16/2020 08:09*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4180		3.75	13.3	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	14.4		0.250	0.500	5	10/16/2020 16:50	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 04:51	WG1560164

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	290		37.9	100	100	10/15/2020 01:58	WG1557663
Fluoride	1.54		0.0640	0.150	1	10/15/2020 01:40	WG1557663
Sulfate	2150		59.4	500	100	10/15/2020 01:58	WG1557663

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:40	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.556		0.0254	0.200	1	10/12/2020 21:21	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00247		0.000735	0.00200	1	10/16/2020 00:01	WG1556443
Barium	0.0123	J	0.00778	0.0200	1	10/16/2020 00:01	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:01	WG1556443
Calcium	640		0.480	1.00	1	10/16/2020 00:01	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:01	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:01	WG1556443
Iron	0.0705	J	0.0489	0.100	1	10/16/2020 00:01	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:01	WG1556443
Manganese	0.0123	B	0.00132	0.00500	1	10/16/2020 00:01	WG1556443
Nickel	0.00248		0.000952	0.00200	1	10/16/2020 00:01	WG1556443
Potassium	2.55		0.534	2.00	1	10/16/2020 00:01	WG1556443
Selenium	0.00553		0.000657	0.00200	1	10/16/2020 00:01	WG1556443
Sodium	148		0.630	2.00	1	10/16/2020 00:01	WG1556443
Uranium	0.0558		0.00754	0.0200	1	10/16/2020 00:01	WG1556443
Vanadium	0.0158		0.000986	0.00500	1	10/16/2020 00:01	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0320	J	0.0314	0.100	1	10/16/2020 01:50	WG1560160

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*78.0-120*		*10/16/2020 01:50*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 21:15	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 21:15	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 21:15	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 21:15	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 21:15	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 21:15	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 21:15	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 21:15	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 21:15	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 21:15	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 21:15	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 21:15	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 21:15	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 21:15	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 21:15	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 21:15	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 21:15	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 21:15	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 21:15	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 21:15	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 21:15	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 21:15	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 21:15	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 21:15	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 21:15	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 21:15	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 21:15	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 21:15	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 21:15	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 21:15	WG1560700
Methyl tert-butyl ether	0.000122	J	0.000101	0.00100	1	10/16/2020 21:15	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 21:15	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 21:15	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 21:15	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 21:15	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 21:15	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 21:15	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 21:15	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 21:15	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 21:15	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 21:15	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 21:15	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 21:15	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 21:15	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 21:15	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 21:15	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 21:15	WG1560700
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 21:15*	WG1560700
(S) 4-Bromofluorobenzene	*96.2*			*77.0-126*		*10/16/2020 21:15*	WG1560700
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*10/16/2020 21:15*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0873	B J	0.0247	0.100	1	10/16/2020 08:29	WG1557497
(S) o-Terphenyl	*63.7*			*31.0-160*		*10/16/2020 08:29*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3150		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 16:51	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	210		19.0	50.0	50	10/15/2020 02:35	WG1557663
Fluoride	0.706		0.0640	0.150	1	10/15/2020 02:17	WG1557663
Sulfate	1510		29.7	250	50	10/15/2020 02:35	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00225		0.000735	0.00200	1	10/16/2020 00:05	WG1556443
Barium	0.0158	J	0.00778	0.0200	1	10/16/2020 00:05	WG1556443
Calcium	396		0.480	1.00	1	10/16/2020 00:05	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:05	WG1556443
Iron	1.78		0.0489	0.100	1	10/16/2020 00:05	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:05	WG1556443
Manganese	0.707		0.00132	0.00500	1	10/16/2020 00:05	WG1556443
Potassium	U		0.534	2.00	1	10/16/2020 00:05	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:05	WG1556443
Sodium	189		0.630	2.00	1	10/16/2020 00:05	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0669	J	0.0314	0.100	1	10/16/2020 02:11	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*97.5*			*78.0-120*		*10/16/2020 02:11*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 21:36	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 21:36	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 21:36	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 21:36	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 21:36	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 21:36	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 21:36	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 21:36	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 21:36	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 21:36	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 21:36	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 21:36	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 21:36	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 21:36	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 21:36	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 21:36	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 21:36	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 21:36	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 21:36	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 21:36	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 21:36	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 21:36	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 21:36	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 21:36	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 21:36	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 21:36	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 21:36	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 21:36	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 21:36	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 21:36	WG1560700
Methyl tert-butyl ether	0.000502	J	0.000101	0.00100	1	10/16/2020 21:36	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 21:36	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 21:36	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 21:36	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 21:36	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 21:36	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 21:36	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 21:36	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 21:36	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 21:36	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 21:36	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 21:36	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 21:36	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 21:36	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 21:36	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 21:36	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 21:36	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 21:36*	WG1560700
(S) 4-Bromofluorobenzene	*96.6*			*77.0-126*		*10/16/2020 21:36*	WG1560700
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*		*10/16/2020 21:36*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.451	B	0.0247	0.100	1	10/16/2020 08:49	WG1557497
(S) o-Terphenyl	*92.6*			*31.0-160*		*10/16/2020 08:49*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3990		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.429		0.0500	0.100	1	10/16/2020 16:53	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	256		37.9	100	100	10/15/2020 04:08	WG1557663
Fluoride	0.705		0.0640	0.150	1	10/15/2020 03:50	WG1557663
Sulfate	2140		59.4	500	100	10/15/2020 04:08	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00367		0.000735	0.00200	1	10/16/2020 00:09	WG1556443
Barium	0.00961	J	0.00778	0.0200	1	10/16/2020 00:09	WG1556443
Calcium	562		0.480	1.00	1	10/16/2020 00:09	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:09	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 00:09	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:09	WG1556443
Manganese	0.0481		0.00132	0.00500	1	10/16/2020 00:09	WG1556443
Potassium	2.36		0.534	2.00	1	10/16/2020 00:09	WG1556443
Selenium	0.00364		0.000657	0.00200	1	10/16/2020 00:09	WG1556443
Sodium	195		0.630	2.00	1	10/16/2020 00:09	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0343	J	0.0314	0.100	1	10/16/2020 02:32	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*78.0-120*		*10/16/2020 02:32*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 21:56	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 21:56	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 21:56	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 21:56	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 21:56	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 21:56	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 21:56	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 21:56	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 21:56	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 21:56	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 21:56	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 21:56	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 21:56	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 21:56	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 21:56	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 21:56	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 21:56	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 21:56	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 21:56	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 21:56	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 21:56	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 21:56	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 21:56	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 21:56	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 21:56	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 21:56	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 21:56	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 21:56	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 21:56	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 21:56	WG1560700
Methyl tert-butyl ether	0.000114	J	0.000101	0.00100	1	10/16/2020 21:56	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 21:56	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 21:56	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 21:56	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 21:56	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 21:56	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 21:56	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 21:56	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 21:56	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 21:56	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 21:56	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 21:56	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 21:56	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 21:56	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 21:56	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 21:56	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 21:56	WG1560700
(S) Toluene-d8	*101*			*80.0-120*		*10/16/2020 21:56*	WG1560700
(S) 4-Bromofluorobenzene	*96.4*			*77.0-126*		*10/16/2020 21:56*	WG1560700
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*10/16/2020 21:56*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.312	B	0.0247	0.100	1	10/16/2020 09:09	WG1557497
(S) o-Terphenyl	*80.5*			*31.0-160*		*10/16/2020 09:09*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4320		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0862	J	0.0500	0.100	1	10/16/2020 16:54	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:30	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	266		37.9	100	100	10/15/2020 04:45	WG1557663
Fluoride	1.33		0.0640	0.150	1	10/15/2020 04:27	WG1557663
Sulfate	2430		59.4	500	100	10/15/2020 04:45	WG1557663

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:42	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.712		0.0254	0.200	1	10/12/2020 21:24	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00378		0.000735	0.00200	1	10/16/2020 00:21	WG1556443
Barium	0.00798	J	0.00778	0.0200	1	10/16/2020 00:21	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:21	WG1556443
Calcium	476		0.480	1.00	1	10/16/2020 00:21	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:21	WG1556443
Cobalt	0.00550		0.000477	0.00200	1	10/16/2020 00:21	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 00:21	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:21	WG1556443
Manganese	0.399		0.00132	0.00500	1	10/16/2020 00:21	WG1556443
Nickel	0.00769		0.000952	0.00200	1	10/16/2020 00:21	WG1556443
Potassium	0.994	J	0.534	2.00	1	10/16/2020 00:21	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:21	WG1556443
Sodium	245		0.630	2.00	1	10/16/2020 00:21	WG1556443
Uranium	0.0128	J	0.00754	0.0200	1	10/16/2020 00:21	WG1556443
Vanadium	0.0236		0.000986	0.00500	1	10/16/2020 00:21	WG1556443

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 22:16	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 22:16	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 22:16	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 22:16	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 22:16	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 22:16	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 22:16	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 22:16	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 22:16	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 22:16	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 22:16	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 22:16	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 22:16	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 22:16	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 22:16	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 22:16	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 22:16	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 22:16	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 22:16	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 22:16	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 22:16	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 22:16	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 22:16	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 22:16	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 22:16	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 22:16	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 22:16	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 22:16	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 22:16	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 22:16	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 22:16	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 22:16	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 22:16	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 22:16	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 22:16	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 22:16	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 22:16	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 22:16	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 22:16	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 22:16	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 22:16	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 22:16	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 22:16	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 22:16	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 22:16	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 22:16	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 22:16	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 22:16*	WG1560700
(S) 4-Bromofluorobenzene	*99.0*			*77.0-126*		*10/16/2020 22:16*	WG1560700
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*10/16/2020 22:16*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0960	B J	0.0247	0.100	1	10/16/2020 09:29	WG1557497
(S) o-Terphenyl	*67.4*			*31.0-160*		*10/16/2020 09:29*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4040		5.64	20.0	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	4.83		0.0500	0.100	1	10/16/2020 16:55	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	135		3.79	10.0	10	10/15/2020 05:04	WG1557663
Fluoride	1.99		0.640	1.50	10	10/15/2020 05:04	WG1557663
Sulfate	2140		59.4	500	100	10/15/2020 05:22	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0157		0.000735	0.00200	1	10/16/2020 00:25	WG1556443
Barium	0.136		0.00778	0.0200	1	10/16/2020 00:25	WG1556443
Calcium	529		0.480	1.00	1	10/16/2020 00:25	WG1556443
Chromium	0.00879		0.00149	0.00200	1	10/16/2020 00:25	WG1556443
Iron	6.56		0.0489	0.100	1	10/16/2020 00:25	WG1556443
Lead	0.0100		0.00249	0.00500	1	10/16/2020 00:25	WG1556443
Manganese	0.333		0.00132	0.00500	1	10/16/2020 00:25	WG1556443
Potassium	2.97		0.534	2.00	1	10/16/2020 00:25	WG1556443
Selenium	0.0120		0.000657	0.00200	1	10/16/2020 00:25	WG1556443
Sodium	287		0.630	2.00	1	10/16/2020 00:25	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0579	J	0.0314	0.100	1	10/16/2020 02:52	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*94.0*			*78.0-120*		*10/16/2020 02:52*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 22:36	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 22:36	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 22:36	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 22:36	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 22:36	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 22:36	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 22:36	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 22:36	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 22:36	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 22:36	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 22:36	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 22:36	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 22:36	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 22:36	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 22:36	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 22:36	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 22:36	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 22:36	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 22:36	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 22:36	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 22:36	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 22:36	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 22:36	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 22:36	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 22:36	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 22:36	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 22:36	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 22:36	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 22:36	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 22:36	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 22:36	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 22:36	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 22:36	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 22:36	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 22:36	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 22:36	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 22:36	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 22:36	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 22:36	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 22:36	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 22:36	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 22:36	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 22:36	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 22:36	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 22:36	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 22:36	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 22:36	WG1560700
(S) Toluene-d8	*104*			*80.0-120*		*10/16/2020 22:36*	WG1560700
(S) 4-Bromofluorobenzene	*96.5*			*77.0-126*		*10/16/2020 22:36*	WG1560700
(S) 1,2-Dichloroethane-d4	*96.2*			*70.0-130*		*10/16/2020 22:36*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0475	B J	0.0247	0.100	1	10/16/2020 09:49	WG1557497
(S) o-Terphenyl	*45.2*			*31.0-160*		*10/16/2020 09:49*	WG1557497

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3520		3.75	13.3	1	10/13/2020 14:38	WG1558061

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	6.85		0.250	0.500	5	10/16/2020 18:42	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:33	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	129		37.9	100	100	10/15/2020 05:59	WG1557663
Fluoride	0.537		0.0640	0.150	1	10/15/2020 05:41	WG1557663
Sulfate	2020		59.4	500	100	10/15/2020 05:59	WG1557663

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:44	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.535		0.0254	0.200	1	10/12/2020 21:28	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00148	J	0.000735	0.00200	1	10/16/2020 00:29	WG1556443
Barium	0.0188	J	0.00778	0.0200	1	10/16/2020 00:29	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:29	WG1556443
Calcium	541		0.480	1.00	1	10/16/2020 00:29	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:29	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:29	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 00:29	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:29	WG1556443
Manganese	0.00279	B J	0.00132	0.00500	1	10/16/2020 00:29	WG1556443
Nickel	U		0.000952	0.00200	1	10/16/2020 00:29	WG1556443
Potassium	1.07	J	0.534	2.00	1	10/16/2020 00:29	WG1556443
Selenium	0.00371		0.000657	0.00200	1	10/16/2020 00:29	WG1556443
Sodium	133		0.630	2.00	1	10/16/2020 00:29	WG1556443
Uranium	0.0267		0.00754	0.0200	1	10/16/2020 00:29	WG1556443
Vanadium	0.00976		0.000986	0.00500	1	10/16/2020 00:29	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0364	J	0.0314	0.100	1	10/16/2020 03:13	WG1560160

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*78.0-120*		*10/16/2020 03:13*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 22:57	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 22:57	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 22:57	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 22:57	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 22:57	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 22:57	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 22:57	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 22:57	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 22:57	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 22:57	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 22:57	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 22:57	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 22:57	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 22:57	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 22:57	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 22:57	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 22:57	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 22:57	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 22:57	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 22:57	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 22:57	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 22:57	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 22:57	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 22:57	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 22:57	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 22:57	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 22:57	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 22:57	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 22:57	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 22:57	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 22:57	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 22:57	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 22:57	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 22:57	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 22:57	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 22:57	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 22:57	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 22:57	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 22:57	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 22:57	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 22:57	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 22:57	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 22:57	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 22:57	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 22:57	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 22:57	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 22:57	WG1560700
(S) Toluene-d8	*99.4*			*80.0-120*		*10/16/2020 22:57*	WG1560700
(S) 4-Bromofluorobenzene	*94.0*			*77.0-126*		*10/16/2020 22:57*	WG1560700
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*10/16/2020 22:57*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/13/2020 22:26	WG1557498
(S) o-Terphenyl	*101*			*31.0-160*		*10/13/2020 22:26*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3820		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	6.35		0.250	0.500	5	10/16/2020 18:12	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	0.00596		0.00180	0.00500	1	10/16/2020 00:35	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	130		37.9	100	100	10/15/2020 06:17	WG1557663
Fluoride	0.386		0.0640	0.150	1	10/15/2020 07:13	WG1557663
Sulfate	2210		59.4	500	100	10/15/2020 06:17	WG1557663

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:46	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.580		0.0254	0.200	1	10/12/2020 21:31	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00189	J	0.000735	0.00200	1	10/16/2020 00:33	WG1556443
Barium	0.00994	J	0.00778	0.0200	1	10/16/2020 00:33	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:33	WG1556443
Calcium	578		0.480	1.00	1	10/16/2020 00:33	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:33	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:33	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 00:33	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:33	WG1556443
Manganese	U		0.00132	0.00500	1	10/16/2020 00:33	WG1556443
Nickel	0.00146	J	0.000952	0.00200	1	10/16/2020 00:33	WG1556443
Potassium	0.656	J	0.534	2.00	1	10/16/2020 00:33	WG1556443
Selenium	0.00294		0.000657	0.00200	1	10/16/2020 00:33	WG1556443
Sodium	141		0.630	2.00	1	10/16/2020 00:33	WG1556443
Uranium	0.0287		0.00754	0.0200	1	10/16/2020 00:33	WG1556443
Vanadium	0.0135		0.000986	0.00500	1	10/16/2020 00:33	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0358	J	0.0314	0.100	1	10/16/2020 03:34	WG1560160

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*		*10/16/2020 03:34*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 23:17	WG1560700
Benzene	U		0.0000941	0.00100	1	10/16/2020 23:17	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 23:17	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 23:17	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 23:17	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 23:17	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 23:17	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 23:17	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 23:17	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 23:17	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 23:17	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 23:17	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 23:17	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 23:17	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 23:17	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 23:17	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 23:17	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 23:17	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 23:17	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 23:17	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 23:17	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 23:17	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 23:17	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 23:17	WG1560700
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 23:17	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 23:17	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 23:17	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 23:17	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 23:17	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 23:17	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 23:17	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 23:17	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 23:17	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 23:17	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 23:17	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 23:17	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 23:17	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 23:17	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 23:17	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 23:17	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 23:17	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 23:17	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 23:17	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 23:17	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/16/2020 23:17	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 23:17	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 23:17	WG1560700
(S) Toluene-d8	*100*			*80.0-120*		*10/16/2020 23:17*	WG1560700
(S) 4-Bromofluorobenzene	*95.4*			*77.0-126*		*10/16/2020 23:17*	WG1560700
(S) 1,2-Dichloroethane-d4	*97.2*			*70.0-130*		*10/16/2020 23:17*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/13/2020 22:52	WG1557498
(S) o-Terphenyl	*106*			*31.0-160*		*10/13/2020 22:52*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1470		2.82	10.0	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.153		0.0500	0.100	1	10/16/2020 18:14	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	71.7		0.379	1.00	1	10/15/2020 07:31	WG1557663
Fluoride	1.34		0.0640	0.150	1	10/15/2020 07:31	WG1557663
Sulfate	785		5.94	50.0	10	10/15/2020 12:03	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00203		0.000735	0.00200	1	10/16/2020 00:37	WG1556443
Barium	0.0248		0.00778	0.0200	1	10/16/2020 00:37	WG1556443
Calcium	256		0.480	1.00	1	10/16/2020 00:37	WG1556443
Chromium	0.00191	J	0.00149	0.00200	1	10/16/2020 00:37	WG1556443
Iron	0.370		0.0489	0.100	1	10/16/2020 00:37	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:37	WG1556443
Manganese	0.0252	B	0.00132	0.00500	1	10/16/2020 00:37	WG1556443
Potassium	5.63		0.534	2.00	1	10/16/2020 00:37	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:37	WG1556443
Sodium	73.9		0.630	2.00	1	10/16/2020 00:37	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.32		0.0314	0.100	1	10/16/2020 03:54	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*78.0-120*		*10/16/2020 03:54*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 23:37	WG1560700
Benzene	0.00473		0.0000941	0.00100	1	10/16/2020 23:37	WG1560700
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 23:37	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 23:37	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 23:37	WG1560700
n-Butylbenzene	0.000360	J	0.000157	0.00100	1	10/16/2020 23:37	WG1560700
sec-Butylbenzene	0.0385		0.000125	0.00100	1	10/16/2020 23:37	WG1560700
Carbon disulfide	0.00229		0.0000962	0.00100	1	10/16/2020 23:37	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 23:37	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 23:37	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 23:37	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 23:37	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 23:37	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 23:37	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 23:37	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 23:37	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 23:37	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 23:37	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 23:37	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 23:37	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 23:37	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 23:37	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 23:37	WG1560700
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 23:37	WG1560700
Isopropylbenzene	0.0256		0.000105	0.00100	1	10/16/2020 23:37	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 23:37	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 23:37	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 23:37	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 23:37	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 23:37	WG1560700
Methyl tert-butyl ether	0.000402	J	0.000101	0.00100	1	10/16/2020 23:37	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/16/2020 23:37	WG1560700
n-Propylbenzene	0.00184		0.0000993	0.00100	1	10/16/2020 23:37	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 23:37	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 23:37	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 23:37	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 23:37	WG1560700
Toluene	U		0.000278	0.00100	1	10/16/2020 23:37	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 23:37	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 23:37	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 23:37	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 23:37	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 23:37	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 23:37	WG1560700
o-Xylene	0.000239	J	0.000174	0.00100	1	10/16/2020 23:37	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 23:37	WG1560700
Xylenes, Total	0.000239	J	0.000174	0.00300	1	10/16/2020 23:37	WG1560700
(S) Toluene-d8	*107*			*80.0-120*		*10/16/2020 23:37*	WG1560700
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/16/2020 23:37*	WG1560700
(S) 1,2-Dichloroethane-d4	*92.3*			*70.0-130*		*10/16/2020 23:37*	WG1560700

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.04		0.0247	0.100	1	10/13/2020 23:17	WG1557498
(S) o-Terphenyl	*107*			*31.0-160*		*10/13/2020 23:17*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1590		2.82	10.0	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U	J3 J6	0.0500	0.100	1	10/16/2020 16:26	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	310		3.79	10.0	10	10/15/2020 08:45	WG1557663
Fluoride	0.710		0.0640	0.150	1	10/15/2020 08:08	WG1557663
Sulfate	8.17		0.594	5.00	1	10/15/2020 08:08	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0249		0.000735	0.00200	1	10/16/2020 00:40	WG1556443
Barium	2.15		0.00778	0.0200	1	10/16/2020 00:40	WG1556443
Calcium	88.5		0.480	1.00	1	10/16/2020 00:40	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:40	WG1556443
Iron	0.0846	J	0.0489	0.100	1	10/16/2020 00:40	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:40	WG1556443
Manganese	0.0742		0.00132	0.00500	1	10/16/2020 00:40	WG1556443
Potassium	0.586	J	0.534	2.00	1	10/16/2020 00:40	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:40	WG1556443
Sodium	343		0.630	2.00	1	10/16/2020 00:40	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	94.8		3.14	10.0	100	10/16/2020 08:02	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*88.3*			*78.0-120*		*10/16/2020 08:02*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		5.65	25.0	500	10/17/2020 07:22	WG1560699
Benzene	27.2		0.0471	0.500	500	10/17/2020 07:22	WG1560699
Bromodichloromethane	U		0.0680	0.500	500	10/17/2020 07:22	WG1560699
Bromoform	U		0.0645	0.500	500	10/17/2020 07:22	WG1560699
Bromomethane	U		0.303	2.50	500	10/17/2020 07:22	WG1560699
n-Butylbenzene	U		0.0785	0.500	500	10/17/2020 07:22	WG1560699
sec-Butylbenzene	U		0.0625	0.500	500	10/17/2020 07:22	WG1560699
Carbon disulfide	U		0.0481	0.500	500	10/17/2020 07:22	WG1560699
Carbon tetrachloride	U		0.0640	0.500	500	10/17/2020 07:22	WG1560699
Chlorobenzene	U		0.0580	0.500	500	10/17/2020 07:22	WG1560699
Chlorodibromomethane	U		0.0700	0.500	500	10/17/2020 07:22	WG1560699
Chloroethane	U		0.0960	2.50	500	10/17/2020 07:22	WG1560699
Chloroform	U		0.0555	2.50	500	10/17/2020 07:22	WG1560699
Chloromethane	U		0.480	1.25	500	10/17/2020 07:22	WG1560699
1,2-Dibromoethane	U		0.0630	0.500	500	10/17/2020 07:22	WG1560699
1,1-Dichloroethane	U		0.0500	0.500	500	10/17/2020 07:22	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0409	0.500	500	10/17/2020 07:22	WG1560699
1,1-Dichloroethene	U		0.0940	0.500	500	10/17/2020 07:22	WG1560699
cis-1,2-Dichloroethene	U		0.0630	0.500	500	10/17/2020 07:22	WG1560699
trans-1,2-Dichloroethene	U		0.0745	0.500	500	10/17/2020 07:22	WG1560699
1,2-Dichloropropane	U		0.0745	0.500	500	10/17/2020 07:22	WG1560699
cis-1,3-Dichloropropene	U		0.0555	0.500	500	10/17/2020 07:22	WG1560699
trans-1,3-Dichloropropene	U	J4	0.0590	0.500	500	10/17/2020 07:22	WG1560699
Ethylbenzene	1.55		0.0685	0.500	500	10/17/2020 07:22	WG1560699
Isopropylbenzene	0.0640	J	0.0525	0.500	500	10/17/2020 07:22	WG1560699
p-Isopropyltoluene	U		0.0600	0.500	500	10/17/2020 07:22	WG1560699
2-Butanone (MEK)	U		0.595	5.00	500	10/17/2020 07:22	WG1560699
2-Hexanone	U		0.394	5.00	500	10/17/2020 07:22	WG1560699
Methylene Chloride	U		0.215	2.50	500	10/17/2020 07:22	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.239	5.00	500	10/17/2020 07:22	WG1560699
Methyl tert-butyl ether	0.560		0.0505	0.500	500	10/17/2020 07:22	WG1560699
Naphthalene	U		0.500	2.50	500	10/17/2020 07:22	WG1560699
n-Propylbenzene	0.0626	J	0.0497	0.500	500	10/17/2020 07:22	WG1560699
Styrene	U		0.0590	0.500	500	10/17/2020 07:22	WG1560699
1,1,1,2-Tetrachloroethane	U		0.0735	0.500	500	10/17/2020 07:22	WG1560699
1,1,2,2-Tetrachloroethane	U		0.0665	0.500	500	10/17/2020 07:22	WG1560699
Tetrachloroethene	U		0.150	0.500	500	10/17/2020 07:22	WG1560699
Toluene	8.09		0.139	0.500	500	10/17/2020 07:22	WG1560699
1,1,1-Trichloroethane	U		0.0745	0.500	500	10/17/2020 07:22	WG1560699
1,1,2-Trichloroethane	U		0.0790	0.500	500	10/17/2020 07:22	WG1560699
Trichloroethene	U		0.0950	0.500	500	10/17/2020 07:22	WG1560699
1,2,4-Trimethylbenzene	0.252	J	0.161	0.500	500	10/17/2020 07:22	WG1560699
1,3,5-Trimethylbenzene	U		0.0520	0.500	500	10/17/2020 07:22	WG1560699
Vinyl chloride	U		0.117	0.500	500	10/17/2020 07:22	WG1560699
o-Xylene	0.794		0.0870	0.500	500	10/17/2020 07:22	WG1560699
m&p-Xylene	2.31		0.215	1.00	500	10/17/2020 07:22	WG1560699
Xylenes, Total	3.10		0.0870	1.50	500	10/17/2020 07:22	WG1560699
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 07:22*	WG1560699
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*		*10/17/2020 07:22*	WG1560699
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*10/17/2020 07:22*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.54		0.0247	0.100	1	10/13/2020 23:43	WG1557498
(S) o-Terphenyl	*106*			*31.0-160*		*10/13/2020 23:43*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1610		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 16:30	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	282		37.9	100	100	10/15/2020 09:40	WG1557663
Fluoride	0.812		0.0640	0.150	1	10/15/2020 09:22	WG1557663
Sulfate	5.16		0.594	5.00	1	10/15/2020 09:22	WG1557663

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0147		0.000735	0.00200	1	10/16/2020 00:44	WG1556443
Barium	8.81		0.00778	0.0200	1	10/16/2020 00:44	WG1556443
Calcium	91.9		0.480	1.00	1	10/16/2020 00:44	WG1556443
Chromium	0.00155	J	0.00149	0.00200	1	10/16/2020 00:44	WG1556443
Iron	0.159		0.0489	0.100	1	10/16/2020 00:44	WG1556443
Lead	0.00387	J	0.00249	0.00500	1	10/16/2020 00:44	WG1556443
Manganese	0.0405		0.00132	0.00500	1	10/16/2020 00:44	WG1556443
Potassium	U		0.534	2.00	1	10/16/2020 00:44	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:44	WG1556443
Sodium	431		0.630	2.00	1	10/16/2020 00:44	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	28.9		3.14	10.0	100	10/16/2020 08:23	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*78.0-120*		*10/16/2020 08:23*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		1.13	5.00	100	10/17/2020 07:43	WG1560699
Benzene	8.72		0.00941	0.100	100	10/17/2020 07:43	WG1560699
Bromodichloromethane	U		0.0136	0.100	100	10/17/2020 07:43	WG1560699
Bromoform	U		0.0129	0.100	100	10/17/2020 07:43	WG1560699
Bromomethane	U		0.0605	0.500	100	10/17/2020 07:43	WG1560699
n-Butylbenzene	U		0.0157	0.100	100	10/17/2020 07:43	WG1560699
sec-Butylbenzene	U		0.0125	0.100	100	10/17/2020 07:43	WG1560699
Carbon disulfide	U		0.00962	0.100	100	10/17/2020 07:43	WG1560699
Carbon tetrachloride	U		0.0128	0.100	100	10/17/2020 07:43	WG1560699
Chlorobenzene	U		0.0116	0.100	100	10/17/2020 07:43	WG1560699
Chlorodibromomethane	U		0.0140	0.100	100	10/17/2020 07:43	WG1560699
Chloroethane	U		0.0192	0.500	100	10/17/2020 07:43	WG1560699
Chloroform	U		0.0111	0.500	100	10/17/2020 07:43	WG1560699
Chloromethane	U		0.0960	0.250	100	10/17/2020 07:43	WG1560699
1,2-Dibromoethane	U		0.0126	0.100	100	10/17/2020 07:43	WG1560699
1,1-Dichloroethane	U		0.0100	0.100	100	10/17/2020 07:43	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00819	0.100	100	10/17/2020 07:43	WG1560699
1,1-Dichloroethene	U		0.0188	0.100	100	10/17/2020 07:43	WG1560699
cis-1,2-Dichloroethene	U		0.0126	0.100	100	10/17/2020 07:43	WG1560699
trans-1,2-Dichloroethene	U		0.0149	0.100	100	10/17/2020 07:43	WG1560699
1,2-Dichloropropane	U		0.0149	0.100	100	10/17/2020 07:43	WG1560699
cis-1,3-Dichloropropene	U		0.0111	0.100	100	10/17/2020 07:43	WG1560699
trans-1,3-Dichloropropene	U	J4	0.0118	0.100	100	10/17/2020 07:43	WG1560699
Ethylbenzene	0.537		0.0137	0.100	100	10/17/2020 07:43	WG1560699
Isopropylbenzene	0.0289	J	0.0105	0.100	100	10/17/2020 07:43	WG1560699
p-Isopropyltoluene	U		0.0120	0.100	100	10/17/2020 07:43	WG1560699
2-Butanone (MEK)	U		0.119	1.00	100	10/17/2020 07:43	WG1560699
2-Hexanone	U		0.0787	1.00	100	10/17/2020 07:43	WG1560699
Methylene Chloride	U		0.0430	0.500	100	10/17/2020 07:43	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.0478	1.00	100	10/17/2020 07:43	WG1560699
Methyl tert-butyl ether	1.20		0.0101	0.100	100	10/17/2020 07:43	WG1560699
Naphthalene	0.127	J	0.100	0.500	100	10/17/2020 07:43	WG1560699
n-Propylbenzene	0.0310	J	0.00993	0.100	100	10/17/2020 07:43	WG1560699
Styrene	U		0.0118	0.100	100	10/17/2020 07:43	WG1560699
1,1,1,2-Tetrachloroethane	U		0.0147	0.100	100	10/17/2020 07:43	WG1560699
1,1,2,2-Tetrachloroethane	U		0.0133	0.100	100	10/17/2020 07:43	WG1560699
Tetrachloroethene	U		0.0300	0.100	100	10/17/2020 07:43	WG1560699
Toluene	0.0746	J	0.0278	0.100	100	10/17/2020 07:43	WG1560699
1,1,1-Trichloroethane	U		0.0149	0.100	100	10/17/2020 07:43	WG1560699
1,1,2-Trichloroethane	U		0.0158	0.100	100	10/17/2020 07:43	WG1560699
Trichloroethene	U		0.0190	0.100	100	10/17/2020 07:43	WG1560699
1,2,4-Trimethylbenzene	0.0910	J	0.0322	0.100	100	10/17/2020 07:43	WG1560699
1,3,5-Trimethylbenzene	0.0117	J	0.0104	0.100	100	10/17/2020 07:43	WG1560699
Vinyl chloride	U		0.0234	0.100	100	10/17/2020 07:43	WG1560699
o-Xylene	0.0274	J	0.0174	0.100	100	10/17/2020 07:43	WG1560699
m&p-Xylene	0.227		0.0430	0.200	100	10/17/2020 07:43	WG1560699
Xylenes, Total	0.254	J	0.0174	0.300	100	10/17/2020 07:43	WG1560699
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 07:43*	WG1560699
(S) 4-Bromofluorobenzene	*95.8*			*77.0-126*		*10/17/2020 07:43*	WG1560699
(S) 1,2-Dichloroethane-d4	*96.8*			*70.0-130*		*10/17/2020 07:43*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	9.97		0.247	1.00	10	10/14/2020 19:13	WG1557498
(S) o-Terphenyl	*265*	J1		*31.0-160*		*10/14/2020 19:13*	WG1557498

Sample Narrative:

L1271301-20 WG1557498: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1060		2.82	10.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 16:33	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:36	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	189		1.90	5.00	5	10/13/2020 22:41	WG1557664
Fluoride	1.12		0.0640	0.150	1	10/13/2020 21:28	WG1557664
Sulfate	6.68		0.594	5.00	1	10/13/2020 21:28	WG1557664

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:47	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.229		0.0254	0.200	1	10/12/2020 21:34	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00267		0.000735	0.00200	1	10/16/2020 00:48	WG1556443
Barium	1.68		0.00778	0.0200	1	10/16/2020 00:48	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:48	WG1556443
Calcium	140		0.480	1.00	1	10/16/2020 00:48	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:48	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:48	WG1556443
Iron	0.704		0.0489	0.100	1	10/16/2020 00:48	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:48	WG1556443
Manganese	0.339		0.00132	0.00500	1	10/16/2020 00:48	WG1556443
Nickel	0.00675		0.000952	0.00200	1	10/16/2020 00:48	WG1556443
Potassium	1.71	J	0.534	2.00	1	10/16/2020 00:48	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:48	WG1556443
Sodium	145		0.630	2.00	1	10/16/2020 00:48	WG1556443
Uranium	U		0.00754	0.0200	1	10/16/2020 00:48	WG1556443
Vanadium	0.00212	J	0.000986	0.00500	1	10/16/2020 00:48	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	4.41		0.0314	0.100	1	10/16/2020 04:15	WG1560160

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*84.0*			*78.0-120*		*10/16/2020 04:15*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	10/17/2020 08:03	WG1560699
Benzene	0.965		0.000941	0.0100	10	10/17/2020 08:03	WG1560699
Bromodichloromethane	U		0.00136	0.0100	10	10/17/2020 08:03	WG1560699
Bromoform	U		0.00129	0.0100	10	10/17/2020 08:03	WG1560699
Bromomethane	U		0.00605	0.0500	10	10/17/2020 08:03	WG1560699
n-Butylbenzene	0.00483	J	0.00157	0.0100	10	10/17/2020 08:03	WG1560699
sec-Butylbenzene	0.00634	J	0.00125	0.0100	10	10/17/2020 08:03	WG1560699
Carbon disulfide	U		0.000962	0.0100	10	10/17/2020 08:03	WG1560699
Carbon tetrachloride	U		0.00128	0.0100	10	10/17/2020 08:03	WG1560699
Chlorobenzene	U		0.00116	0.0100	10	10/17/2020 08:03	WG1560699
Chlorodibromomethane	U		0.00140	0.0100	10	10/17/2020 08:03	WG1560699
Chloroethane	U		0.00192	0.0500	10	10/17/2020 08:03	WG1560699
Chloroform	U		0.00111	0.0500	10	10/17/2020 08:03	WG1560699
Chloromethane	U		0.00960	0.0250	10	10/17/2020 08:03	WG1560699
1,2-Dibromoethane	U		0.00126	0.0100	10	10/17/2020 08:03	WG1560699
1,1-Dichloroethane	U		0.00100	0.0100	10	10/17/2020 08:03	WG1560699
1,2-Dichloroethane	U		0.000819	0.0100	10	10/17/2020 08:03	WG1560699
1,1-Dichloroethene	U		0.00188	0.0100	10	10/17/2020 08:03	WG1560699
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	10/17/2020 08:03	WG1560699
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	10/17/2020 08:03	WG1560699
1,2-Dichloropropane	U		0.00149	0.0100	10	10/17/2020 08:03	WG1560699
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	10/17/2020 08:03	WG1560699
trans-1,3-Dichloropropene	U	J4	0.00118	0.0100	10	10/17/2020 08:03	WG1560699
Ethylbenzene	0.00643	J	0.00137	0.0100	10	10/17/2020 08:03	WG1560699
Isopropylbenzene	0.0424		0.00105	0.0100	10	10/17/2020 08:03	WG1560699
p-Isopropyltoluene	U		0.00120	0.0100	10	10/17/2020 08:03	WG1560699
2-Butanone (MEK)	U		0.0119	0.100	10	10/17/2020 08:03	WG1560699
2-Hexanone	U		0.00787	0.100	10	10/17/2020 08:03	WG1560699
Methylene Chloride	U		0.00430	0.0500	10	10/17/2020 08:03	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	10/17/2020 08:03	WG1560699
Methyl tert-butyl ether	1.90		0.00101	0.0100	10	10/17/2020 08:03	WG1560699
Naphthalene	0.0737		0.0100	0.0500	10	10/17/2020 08:03	WG1560699
n-Propylbenzene	0.0513		0.000993	0.0100	10	10/17/2020 08:03	WG1560699
Styrene	U		0.00118	0.0100	10	10/17/2020 08:03	WG1560699
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	10/17/2020 08:03	WG1560699
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	10/17/2020 08:03	WG1560699
Tetrachloroethene	U		0.00300	0.0100	10	10/17/2020 08:03	WG1560699
Toluene	0.00445	J	0.00278	0.0100	10	10/17/2020 08:03	WG1560699
1,1,1-Trichloroethane	U		0.00149	0.0100	10	10/17/2020 08:03	WG1560699
1,1,2-Trichloroethane	U		0.00158	0.0100	10	10/17/2020 08:03	WG1560699
Trichloroethene	U		0.00190	0.0100	10	10/17/2020 08:03	WG1560699
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	10/17/2020 08:03	WG1560699
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	10/17/2020 08:03	WG1560699
Vinyl chloride	U		0.00234	0.0100	10	10/17/2020 08:03	WG1560699
o-Xylene	0.00183	J	0.00174	0.0100	10	10/17/2020 08:03	WG1560699
m&p-Xylene	0.00604	J	0.00430	0.0200	10	10/17/2020 08:03	WG1560699
Xylenes, Total	0.00787	J	0.00174	0.0300	10	10/17/2020 08:03	WG1560699
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 08:03*	WG1560699
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/17/2020 08:03*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.7*			*70.0-130*		*10/17/2020 08:03*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	3.36		0.0247	0.100	1	10/15/2020 07:24	WG1557911
(S) o-Terphenyl	*91.6*			*31.0-160*		*10/15/2020 07:24*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2670		2.82	10.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 18:04	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:37	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	132		19.0	50.0	50	10/13/2020 23:36	WG1557664
Fluoride	1.02		0.0640	0.150	1	10/13/2020 23:18	WG1557664
Sulfate	1140		29.7	250	50	10/13/2020 23:36	WG1557664

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/13/2020 09:49	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	1.32		0.0254	0.200	1	10/12/2020 21:37	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00538		0.000735	0.00200	1	10/16/2020 00:52	WG1556443
Barium	0.0371		0.00778	0.0200	1	10/16/2020 00:52	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:52	WG1556443
Calcium	281		0.480	1.00	1	10/16/2020 00:52	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:52	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:52	WG1556443
Iron	0.0940	J	0.0489	0.100	1	10/16/2020 00:52	WG1556443
Lead	0.00540		0.00249	0.00500	1	10/16/2020 00:52	WG1556443
Manganese	0.389		0.00132	0.00500	1	10/16/2020 00:52	WG1556443
Nickel	0.00504		0.000952	0.00200	1	10/16/2020 00:52	WG1556443
Potassium	4.03		0.534	2.00	1	10/16/2020 00:52	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:52	WG1556443
Sodium	114		0.630	2.00	1	10/16/2020 00:52	WG1556443
Uranium	U		0.00754	0.0200	1	10/16/2020 00:52	WG1556443
Vanadium	0.00375	J	0.000986	0.00500	1	10/16/2020 00:52	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	1.65		0.0314	0.100	1	10/16/2020 04:36	WG1560160

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*84.7*			*78.0-120*		*10/16/2020 04:36*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	10/17/2020 08:24	WG1560699
Benzene	0.362		0.000471	0.00500	5	10/17/2020 08:24	WG1560699
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 08:24	WG1560699
Bromoform	U		0.000645	0.00500	5	10/17/2020 08:24	WG1560699
Bromomethane	U		0.00303	0.0250	5	10/17/2020 08:24	WG1560699
n-Butylbenzene	U		0.000785	0.00500	5	10/17/2020 08:24	WG1560699
sec-Butylbenzene	0.00171	J	0.000625	0.00500	5	10/17/2020 08:24	WG1560699
Carbon disulfide	U		0.000481	0.00500	5	10/17/2020 08:24	WG1560699
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 08:24	WG1560699
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 08:24	WG1560699
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 08:24	WG1560699
Chloroethane	U		0.000960	0.0250	5	10/17/2020 08:24	WG1560699
Chloroform	U		0.000555	0.0250	5	10/17/2020 08:24	WG1560699
Chloromethane	U		0.00480	0.0125	5	10/17/2020 08:24	WG1560699
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 08:24	WG1560699
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 08:24	WG1560699
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 08:24	WG1560699
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 08:24	WG1560699
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 08:24	WG1560699
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 08:24	WG1560699
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 08:24	WG1560699
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 08:24	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000590	0.00500	5	10/17/2020 08:24	WG1560699
Ethylbenzene	0.0136		0.000685	0.00500	5	10/17/2020 08:24	WG1560699
Isopropylbenzene	0.0192		0.000525	0.00500	5	10/17/2020 08:24	WG1560699
p-Isopropyltoluene	0.00110	J	0.000600	0.00500	5	10/17/2020 08:24	WG1560699
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 08:24	WG1560699
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 08:24	WG1560699
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 08:24	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 08:24	WG1560699
Methyl tert-butyl ether	0.214		0.000505	0.00500	5	10/17/2020 08:24	WG1560699
Naphthalene	0.00638	J	0.00500	0.0250	5	10/17/2020 08:24	WG1560699
n-Propylbenzene	0.0182		0.000497	0.00500	5	10/17/2020 08:24	WG1560699
Styrene	U		0.000590	0.00500	5	10/17/2020 08:24	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 08:24	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 08:24	WG1560699
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 08:24	WG1560699
Toluene	0.00882		0.00139	0.00500	5	10/17/2020 08:24	WG1560699
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 08:24	WG1560699
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 08:24	WG1560699
Trichloroethene	U		0.000950	0.00500	5	10/17/2020 08:24	WG1560699
1,2,4-Trimethylbenzene	0.0430		0.00161	0.00500	5	10/17/2020 08:24	WG1560699
1,3,5-Trimethylbenzene	0.00133	J	0.000520	0.00500	5	10/17/2020 08:24	WG1560699
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 08:24	WG1560699
o-Xylene	0.00171	J	0.000870	0.00500	5	10/17/2020 08:24	WG1560699
m&p-Xylene	0.0609		0.00215	0.0100	5	10/17/2020 08:24	WG1560699
Xylenes, Total	0.0626		0.000870	0.0150	5	10/17/2020 08:24	WG1560699
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 08:24*	WG1560699
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 08:24*	WG1560699
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*		*10/17/2020 08:24*	WG1560699

Received by OCD: 6/23/2021 4:05:29 PM

MW-28
Collected date/time: 10/07/20 11:10
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	5.28		0.0247	0.100	1	10/15/2020 07:45	WG1557911
(S) o-Terphenyl	*118*			*31.0-160*		*10/15/2020 07:45*	WG1557911

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3560		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.203		0.0500	0.100	1	10/16/2020 18:05	WG1559000

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.0180	0.0500	10	10/16/2020 00:38	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	202		37.9	100	100	10/14/2020 00:50	WG1557664
Fluoride	0.715		0.0640	0.150	1	10/14/2020 00:31	WG1557664
Sulfate	1510		59.4	500	100	10/14/2020 00:50	WG1557664

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:55	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.465		0.0254	0.200	1	10/12/2020 21:40	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00621		0.000735	0.00200	1	10/16/2020 00:55	WG1556443
Barium	0.0203		0.00778	0.0200	1	10/16/2020 00:55	WG1556443
Cadmium	U		0.000478	0.00100	1	10/16/2020 00:55	WG1556443
Calcium	418		0.480	1.00	1	10/16/2020 00:55	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 00:55	WG1556443
Cobalt	U		0.000477	0.00200	1	10/16/2020 00:55	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 00:55	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 00:55	WG1556443
Manganese	0.227		0.00132	0.00500	1	10/16/2020 00:55	WG1556443
Nickel	0.00161	J	0.000952	0.00200	1	10/16/2020 00:55	WG1556443
Potassium	U		0.534	2.00	1	10/16/2020 00:55	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 00:55	WG1556443
Sodium	189		0.630	2.00	1	10/16/2020 00:55	WG1556443
Uranium	U		0.00754	0.0200	1	10/16/2020 00:55	WG1556443
Vanadium	U		0.000986	0.00500	1	10/16/2020 00:55	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.528		0.0314	0.100	1	10/16/2020 04:56	WG1560160

Received by OCD: 6/23/2021 4:05:29 PM

MW-08
Collected date/time: 10/07/20 10:25
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Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*88.3*			*78.0-120*		*10/16/2020 04:56*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 05:41	WG1560699
Benzene	0.00231		0.0000941	0.00100	1	10/17/2020 05:41	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 05:41	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 05:41	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 05:41	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 05:41	WG1560699
sec-Butylbenzene	0.00254		0.000125	0.00100	1	10/17/2020 05:41	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 05:41	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 05:41	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 05:41	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 05:41	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 05:41	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 05:41	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 05:41	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 05:41	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 05:41	WG1560699
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 05:41	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 05:41	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 05:41	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 05:41	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 05:41	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 05:41	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 05:41	WG1560699
Ethylbenzene	0.000461	J	0.000137	0.00100	1	10/17/2020 05:41	WG1560699
Isopropylbenzene	0.0231		0.000105	0.00100	1	10/17/2020 05:41	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 05:41	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 05:41	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 05:41	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 05:41	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 05:41	WG1560699
Methyl tert-butyl ether	0.000168	J	0.000101	0.00100	1	10/17/2020 05:41	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 05:41	WG1560699
n-Propylbenzene	0.00120		0.0000993	0.00100	1	10/17/2020 05:41	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 05:41	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 05:41	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 05:41	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 05:41	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 05:41	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 05:41	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 05:41	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 05:41	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 05:41	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 05:41	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 05:41	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 05:41	WG1560699
m&p-Xylene	0.00238		0.000430	0.00200	1	10/17/2020 05:41	WG1560699
Xylenes, Total	0.00238	J	0.000174	0.00300	1	10/17/2020 05:41	WG1560699
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 05:41*	WG1560699
(S) 4-Bromofluorobenzene	*99.3*			*77.0-126*		*10/17/2020 05:41*	WG1560699
(S) 1,2-Dichloroethane-d4	*90.7*			*70.0-130*		*10/17/2020 05:41*	WG1560699

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MW-03

Collected date/time: 10/07/20 10:25

L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	1.03		0.0247	0.100	1	10/15/2020 08:05	WG1557911
(S) o-Terphenyl	*104*			*31.0-160*		*10/15/2020 08:05*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4350		5.64	20.0	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.0919	J	0.0500	0.100	1	10/16/2020 18:07	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	271		37.9	100	100	10/14/2020 01:27	WG1557664
Fluoride	1.10		0.0640	0.150	1	10/14/2020 01:08	WG1557664
Sulfate	2270		59.4	500	100	10/14/2020 01:27	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00367		0.000735	0.00200	1	10/16/2020 01:10	WG1556443
Barium	0.0101	J	0.00778	0.0200	1	10/16/2020 01:10	WG1556443
Calcium	541		0.480	1.00	1	10/16/2020 01:10	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 01:10	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 01:10	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 01:10	WG1556443
Manganese	0.430		0.00132	0.00500	1	10/16/2020 01:10	WG1556443
Potassium	1.42	J	0.534	2.00	1	10/16/2020 01:10	WG1556443
Selenium	0.00180	J	0.000657	0.00200	1	10/16/2020 01:10	WG1556443
Sodium	221		0.630	2.00	1	10/16/2020 01:10	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0382	J	0.0314	0.100	1	10/16/2020 05:17	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*95.5*			*78.0-120*		*10/16/2020 05:17*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 06:01	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 06:01	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 06:01	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 06:01	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 06:01	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 06:01	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 06:01	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 06:01	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 06:01	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 06:01	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 06:01	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 06:01	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 06:01	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 06:01	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 06:01	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 06:01	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 06:01	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 06:01	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 06:01	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 06:01	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 06:01	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 06:01	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 06:01	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 06:01	WG1560699
Isopropylbenzene	0.000155	J	0.000105	0.00100	1	10/17/2020 06:01	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 06:01	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 06:01	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 06:01	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 06:01	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 06:01	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 06:01	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 06:01	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 06:01	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 06:01	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 06:01	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 06:01	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 06:01	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 06:01	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 06:01	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 06:01	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 06:01	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 06:01	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 06:01	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 06:01	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 06:01	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 06:01	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 06:01	WG1560699
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 06:01*	WG1560699
(S) 4-Bromofluorobenzene	*96.3*			*77.0-126*		*10/17/2020 06:01*	WG1560699
(S) 1,2-Dichloroethane-d4	*94.0*			*70.0-130*		*10/17/2020 06:01*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0942	B J	0.0247	0.100	1	10/15/2020 08:25	WG1557911
(S) o-Terphenyl	*87.4*			*31.0-160*		*10/15/2020 08:25*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4040		5.64	20.0	1	10/14/2020 02:47	WG1558086

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.476		0.0500	0.100	1	10/16/2020 18:09	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	260		37.9	100	100	10/14/2020 02:05	WG1557664
Fluoride	1.53		0.0640	0.150	1	10/14/2020 01:47	WG1557664
Sulfate	1920		59.4	500	100	10/14/2020 02:05	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00300		0.000735	0.00200	1	10/16/2020 01:14	WG1556443
Barium	0.00929	J	0.00778	0.0200	1	10/16/2020 01:14	WG1556443
Calcium	550		0.480	1.00	1	10/16/2020 01:14	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 01:14	WG1556443
Iron	0.0902	J	0.0489	0.100	1	10/16/2020 01:14	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 01:14	WG1556443
Manganese	0.0150	B	0.00132	0.00500	1	10/16/2020 01:14	WG1556443
Potassium	1.14	J	0.534	2.00	1	10/16/2020 01:14	WG1556443
Selenium	0.00619		0.000657	0.00200	1	10/16/2020 01:14	WG1556443
Sodium	176		0.630	2.00	1	10/16/2020 01:14	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 05:37	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*95.7*			*78.0-120*		*10/16/2020 05:37*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 06:22	WG1560699
Benzene	U		0.0000941	0.00100	1	10/17/2020 06:22	WG1560699
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 06:22	WG1560699
Bromoform	U		0.000129	0.00100	1	10/17/2020 06:22	WG1560699
Bromomethane	U		0.000605	0.00500	1	10/17/2020 06:22	WG1560699
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 06:22	WG1560699
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 06:22	WG1560699
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 06:22	WG1560699
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 06:22	WG1560699
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 06:22	WG1560699
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 06:22	WG1560699
Chloroethane	U		0.000192	0.00500	1	10/17/2020 06:22	WG1560699
Chloroform	U		0.000111	0.00500	1	10/17/2020 06:22	WG1560699
Chloromethane	U		0.000960	0.00250	1	10/17/2020 06:22	WG1560699
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 06:22	WG1560699
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 06:22	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 06:22	WG1560699
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 06:22	WG1560699
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 06:22	WG1560699
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 06:22	WG1560699
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 06:22	WG1560699
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 06:22	WG1560699
trans-1,3-Dichloropropene	U	J4	0.000118	0.00100	1	10/17/2020 06:22	WG1560699
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 06:22	WG1560699
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 06:22	WG1560699
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 06:22	WG1560699
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 06:22	WG1560699
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 06:22	WG1560699
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 06:22	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 06:22	WG1560699
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 06:22	WG1560699
Naphthalene	U		0.00100	0.00500	1	10/17/2020 06:22	WG1560699
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 06:22	WG1560699
Styrene	U		0.000118	0.00100	1	10/17/2020 06:22	WG1560699
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 06:22	WG1560699
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 06:22	WG1560699
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 06:22	WG1560699
Toluene	U		0.000278	0.00100	1	10/17/2020 06:22	WG1560699
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 06:22	WG1560699
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 06:22	WG1560699
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 06:22	WG1560699
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 06:22	WG1560699
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 06:22	WG1560699
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 06:22	WG1560699
o-Xylene	U		0.000174	0.00100	1	10/17/2020 06:22	WG1560699
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 06:22	WG1560699
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 06:22	WG1560699
(S) Toluene-d8	*99.9*			*80.0-120*		*10/17/2020 06:22*	WG1560699
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*10/17/2020 06:22*	WG1560699
(S) 1,2-Dichloroethane-d4	*91.9*			*70.0-130*		*10/17/2020 06:22*	WG1560699

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.127	B	0.0247	0.100	1	10/15/2020 08:45	WG1557911
(S) o-Terphenyl	*84.2*			*31.0-160*		*10/15/2020 08:45*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1410		2.82	10.0	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 18:10	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	185		1.90	5.00	5	10/14/2020 02:42	WG1557664
Fluoride	0.915		0.0640	0.150	1	10/14/2020 02:23	WG1557664
Sulfate	234		2.97	25.0	5	10/14/2020 02:42	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0107		0.000735	0.00200	1	10/16/2020 01:18	WG1556443
Barium	0.0786		0.00778	0.0200	1	10/16/2020 01:18	WG1556443
Calcium	207		0.480	1.00	1	10/16/2020 01:18	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 01:18	WG1556443
Iron	1.75		0.0489	0.100	1	10/16/2020 01:18	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 01:18	WG1556443
Manganese	0.912		0.00132	0.00500	1	10/16/2020 01:18	WG1556443
Potassium	0.881	J	0.534	2.00	1	10/16/2020 01:18	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 01:18	WG1556443
Sodium	137		0.630	2.00	1	10/16/2020 01:18	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	5.37		0.0314	0.100	1	10/16/2020 05:58	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*78.6*			*78.0-120*		*10/16/2020 05:58*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 23:57	WG1560700
Benzene	2.32		0.00471	0.0500	50	10/18/2020 11:08	WG1561145
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 23:57	WG1560700
Bromoform	U		0.000129	0.00100	1	10/16/2020 23:57	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/16/2020 23:57	WG1560700
n-Butylbenzene	0.000929	J	0.000157	0.00100	1	10/16/2020 23:57	WG1560700
sec-Butylbenzene	0.00403		0.000125	0.00100	1	10/16/2020 23:57	WG1560700
Carbon disulfide	0.000718	J	0.0000962	0.00100	1	10/16/2020 23:57	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 23:57	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 23:57	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 23:57	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/16/2020 23:57	WG1560700
Chloroform	U		0.000111	0.00500	1	10/16/2020 23:57	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/16/2020 23:57	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 23:57	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 23:57	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 23:57	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 23:57	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 23:57	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 23:57	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 23:57	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 23:57	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 23:57	WG1560700
Ethylbenzene	0.0180		0.000137	0.00100	1	10/16/2020 23:57	WG1560700
Isopropylbenzene	0.0205		0.000105	0.00100	1	10/16/2020 23:57	WG1560700
p-Isopropyltoluene	0.000621	J	0.000120	0.00100	1	10/16/2020 23:57	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 23:57	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 23:57	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 23:57	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 23:57	WG1560700
Methyl tert-butyl ether	0.0532		0.000101	0.00100	1	10/16/2020 23:57	WG1560700
Naphthalene	0.0180		0.00100	0.00500	1	10/16/2020 23:57	WG1560700
n-Propylbenzene	0.0157		0.0000993	0.00100	1	10/16/2020 23:57	WG1560700
Styrene	U		0.000118	0.00100	1	10/16/2020 23:57	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 23:57	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 23:57	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 23:57	WG1560700
Toluene	0.00858		0.000278	0.00100	1	10/16/2020 23:57	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 23:57	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 23:57	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 23:57	WG1560700
1,2,4-Trimethylbenzene	0.0254		0.000322	0.00100	1	10/16/2020 23:57	WG1560700
1,3,5-Trimethylbenzene	0.00284		0.000104	0.00100	1	10/16/2020 23:57	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 23:57	WG1560700
o-Xylene	0.000814	J	0.000174	0.00100	1	10/16/2020 23:57	WG1560700
m&p-Xylene	0.0771		0.000430	0.00200	1	10/16/2020 23:57	WG1560700
Xylenes, Total	0.0779		0.000174	0.00300	1	10/16/2020 23:57	WG1560700
(S) Toluene-d8	*103*			*80.0-120*		*10/16/2020 23:57*	WG1560700
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2020 11:08*	WG1561145
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/16/2020 23:57*	WG1560700
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2020 11:08*	WG1561145
(S) 1,2-Dichloroethane-d4	*93.1*			*70.0-130*		*10/16/2020 23:57*	WG1560700
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/18/2020 11:08*	WG1561145

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.07		0.0247	0.100	1	10/14/2020 02:42	WG1557908
(S) o-Terphenyl	*113*			*31.0-160*		*10/14/2020 02:42*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	1050		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/16/2020 18:11	WG1559000

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	99.9		1.90	5.00	5	10/14/2020 03:19	WG1557664
Fluoride	1.47		0.0640	0.150	1	10/14/2020 03:00	WG1557664
Sulfate	17.4		0.594	5.00	1	10/14/2020 03:00	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0123		0.000735	0.00200	1	10/16/2020 01:21	WG1556443
Barium	8.29		0.00778	0.0200	1	10/16/2020 01:21	WG1556443
Calcium	170		0.480	1.00	1	10/16/2020 01:21	WG1556443
Chromium	0.00278		0.00149	0.00200	1	10/16/2020 01:21	WG1556443
Iron	0.411		0.0489	0.100	1	10/16/2020 01:21	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 01:21	WG1556443
Manganese	0.138		0.00132	0.00500	1	10/16/2020 01:21	WG1556443
Potassium	2.73		0.534	2.00	1	10/16/2020 01:21	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 01:21	WG1556443
Sodium	89.5		0.630	2.00	1	10/16/2020 01:21	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	32.8		1.57	5.00	50	10/16/2020 07:21	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*90.4*			*78.0-120*		*10/16/2020 07:21*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.565	2.50	50	10/17/2020 08:44	WG1560699
Benzene	11.5		0.0471	0.500	500	10/18/2020 15:01	WG1561144
Bromodichloromethane	U		0.00680	0.0500	50	10/17/2020 08:44	WG1560699
Bromoform	U		0.00645	0.0500	50	10/17/2020 08:44	WG1560699
Bromomethane	U		0.0303	0.250	50	10/17/2020 08:44	WG1560699
n-Butylbenzene	U		0.00785	0.0500	50	10/17/2020 08:44	WG1560699
sec-Butylbenzene	U		0.00625	0.0500	50	10/17/2020 08:44	WG1560699
Carbon disulfide	U		0.00481	0.0500	50	10/17/2020 08:44	WG1560699
Carbon tetrachloride	U		0.00640	0.0500	50	10/17/2020 08:44	WG1560699
Chlorobenzene	U		0.00580	0.0500	50	10/17/2020 08:44	WG1560699
Chlorodibromomethane	U		0.00700	0.0500	50	10/17/2020 08:44	WG1560699
Chloroethane	U		0.00960	0.250	50	10/17/2020 08:44	WG1560699
Chloroform	U		0.00555	0.250	50	10/17/2020 08:44	WG1560699
Chloromethane	U		0.0480	0.125	50	10/17/2020 08:44	WG1560699
1,2-Dibromoethane	U		0.00630	0.0500	50	10/17/2020 08:44	WG1560699
1,1-Dichloroethane	U		0.00500	0.0500	50	10/17/2020 08:44	WG1560699

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00409	0.0500	50	10/17/2020 08:44	WG1560699
1,1-Dichloroethene	U		0.00940	0.0500	50	10/17/2020 08:44	WG1560699
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	10/17/2020 08:44	WG1560699
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	10/17/2020 08:44	WG1560699
1,2-Dichloropropane	U		0.00745	0.0500	50	10/17/2020 08:44	WG1560699
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	10/17/2020 08:44	WG1560699
trans-1,3-Dichloropropene	U	J4	0.00590	0.0500	50	10/17/2020 08:44	WG1560699
Ethylbenzene	0.584		0.00685	0.0500	50	10/17/2020 08:44	WG1560699
Isopropylbenzene	0.0432	J	0.00525	0.0500	50	10/17/2020 08:44	WG1560699
p-Isopropyltoluene	U		0.00600	0.0500	50	10/17/2020 08:44	WG1560699
2-Butanone (MEK)	U		0.0595	0.500	50	10/17/2020 08:44	WG1560699
2-Hexanone	U		0.0394	0.500	50	10/17/2020 08:44	WG1560699
Methylene Chloride	U		0.0215	0.250	50	10/17/2020 08:44	WG1560699
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	10/17/2020 08:44	WG1560699
Methyl tert-butyl ether	0.0230	J	0.00505	0.0500	50	10/17/2020 08:44	WG1560699
Naphthalene	0.0778	J	0.0500	0.250	50	10/17/2020 08:44	WG1560699
n-Propylbenzene	0.0302	J	0.00497	0.0500	50	10/17/2020 08:44	WG1560699
Styrene	U		0.00590	0.0500	50	10/17/2020 08:44	WG1560699
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	10/17/2020 08:44	WG1560699
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	10/17/2020 08:44	WG1560699
Tetrachloroethene	U		0.0150	0.0500	50	10/17/2020 08:44	WG1560699
Toluene	0.0187	J	0.0139	0.0500	50	10/17/2020 08:44	WG1560699
1,1,1-Trichloroethane	U		0.00745	0.0500	50	10/17/2020 08:44	WG1560699
1,1,2-Trichloroethane	U		0.00790	0.0500	50	10/17/2020 08:44	WG1560699
Trichloroethene	U		0.00950	0.0500	50	10/17/2020 08:44	WG1560699
1,2,4-Trimethylbenzene	0.0572		0.0161	0.0500	50	10/17/2020 08:44	WG1560699
1,3,5-Trimethylbenzene	0.0202	J	0.00520	0.0500	50	10/17/2020 08:44	WG1560699
Vinyl chloride	U		0.0117	0.0500	50	10/17/2020 08:44	WG1560699
o-Xylene	U		0.00870	0.0500	50	10/17/2020 08:44	WG1560699
m&p-Xylene	0.371		0.0215	0.100	50	10/17/2020 08:44	WG1560699
Xylenes, Total	0.371		0.00870	0.150	50	10/17/2020 08:44	WG1560699
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 08:44*	WG1560699
(S) Toluene-d8	*112*			*80.0-120*		*10/18/2020 15:01*	WG1561144
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*10/17/2020 08:44*	WG1560699
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/18/2020 15:01*	WG1561144
(S) 1,2-Dichloroethane-d4	*93.3*			*70.0-130*		*10/17/2020 08:44*	WG1560699
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*10/18/2020 15:01*	WG1561144

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	9.39		0.0494	0.200	2	10/14/2020 00:34	WG1557498
(S) o-Terphenyl	*87.9*			*31.0-160*		*10/14/2020 00:34*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2110		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:21	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	339		37.9	100	100	10/14/2020 04:32	WG1557664
Fluoride	1.06		0.0640	0.150	1	10/14/2020 04:14	WG1557664
Sulfate	532		5.94	50.0	10	10/15/2020 05:17	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00299		0.000735	0.00200	1	10/16/2020 01:25	WG1556443
Barium	0.0460		0.00778	0.0200	1	10/16/2020 01:25	WG1556443
Calcium	246		0.480	1.00	1	10/16/2020 01:25	WG1556443
Chromium	0.00151	J	0.00149	0.00200	1	10/16/2020 01:25	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 01:25	WG1556443
Lead	0.00337	J	0.00249	0.00500	1	10/16/2020 01:25	WG1556443
Manganese	0.0141	B	0.00132	0.00500	1	10/16/2020 01:25	WG1556443
Potassium	0.820	J	0.534	2.00	1	10/16/2020 01:25	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 01:25	WG1556443
Sodium	302		0.630	2.00	1	10/16/2020 01:25	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	11.7		1.57	5.00	50	10/16/2020 07:41	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*78.0-120*		*10/16/2020 07:41*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	10/17/2020 04:21	WG1560784
Benzene	1.60		0.00471	0.0500	50	10/17/2020 04:21	WG1560784
Bromodichloromethane	U		0.00680	0.0500	50	10/17/2020 04:21	WG1560784
Bromoform	U		0.00645	0.0500	50	10/17/2020 04:21	WG1560784
Bromomethane	U		0.0303	0.250	50	10/17/2020 04:21	WG1560784
n-Butylbenzene	U		0.00785	0.0500	50	10/17/2020 04:21	WG1560784
sec-Butylbenzene	0.00816	J	0.00625	0.0500	50	10/17/2020 04:21	WG1560784
Carbon disulfide	0.00858	J	0.00481	0.0500	50	10/17/2020 04:21	WG1560784
Carbon tetrachloride	U		0.00640	0.0500	50	10/17/2020 04:21	WG1560784
Chlorobenzene	U		0.00580	0.0500	50	10/17/2020 04:21	WG1560784
Chlorodibromomethane	U		0.00700	0.0500	50	10/17/2020 04:21	WG1560784
Chloroethane	U		0.00960	0.250	50	10/17/2020 04:21	WG1560784
Chloroform	U		0.00555	0.250	50	10/17/2020 04:21	WG1560784
Chloromethane	U		0.0480	0.125	50	10/17/2020 04:21	WG1560784
1,2-Dibromoethane	U		0.00630	0.0500	50	10/17/2020 04:21	WG1560784
1,1-Dichloroethane	U		0.00500	0.0500	50	10/17/2020 04:21	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00409	0.0500	50	10/17/2020 04:21	WG1560784
1,1-Dichloroethene	U		0.00940	0.0500	50	10/17/2020 04:21	WG1560784
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	10/17/2020 04:21	WG1560784
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	10/17/2020 04:21	WG1560784
1,2-Dichloropropane	U		0.00745	0.0500	50	10/17/2020 04:21	WG1560784
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	10/17/2020 04:21	WG1560784
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	10/17/2020 04:21	WG1560784
Ethylbenzene	0.0519		0.00685	0.0500	50	10/17/2020 04:21	WG1560784
Isopropylbenzene	0.107		0.00525	0.0500	50	10/17/2020 04:21	WG1560784
p-Isopropyltoluene	0.00659	J	0.00600	0.0500	50	10/17/2020 04:21	WG1560784
2-Butanone (MEK)	U		0.0595	0.500	50	10/17/2020 04:21	WG1560784
2-Hexanone	U		0.0394	0.500	50	10/17/2020 04:21	WG1560784
Methylene Chloride	U		0.0215	0.250	50	10/17/2020 04:21	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	10/17/2020 04:21	WG1560784
Methyl tert-butyl ether	0.0110	J	0.00505	0.0500	50	10/17/2020 04:21	WG1560784
Naphthalene	0.177	J	0.0500	0.250	50	10/17/2020 04:21	WG1560784
n-Propylbenzene	0.110		0.00497	0.0500	50	10/17/2020 04:21	WG1560784
Styrene	U		0.00590	0.0500	50	10/17/2020 04:21	WG1560784
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	10/17/2020 04:21	WG1560784
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	10/17/2020 04:21	WG1560784
Tetrachloroethene	U		0.0150	0.0500	50	10/17/2020 04:21	WG1560784
Toluene	0.161		0.0139	0.0500	50	10/17/2020 04:21	WG1560784
1,1,1-Trichloroethane	U		0.00745	0.0500	50	10/17/2020 04:21	WG1560784
1,1,2-Trichloroethane	U		0.00790	0.0500	50	10/17/2020 04:21	WG1560784
Trichloroethene	U	J4	0.00950	0.0500	50	10/17/2020 04:21	WG1560784
1,2,4-Trimethylbenzene	0.241		0.0161	0.0500	50	10/17/2020 04:21	WG1560784
1,3,5-Trimethylbenzene	0.0191	J	0.00520	0.0500	50	10/17/2020 04:21	WG1560784
Vinyl chloride	U		0.0117	0.0500	50	10/17/2020 04:21	WG1560784
o-Xylene	U		0.00870	0.0500	50	10/17/2020 04:21	WG1560784
m&p-Xylene	0.695		0.0215	0.100	50	10/17/2020 04:21	WG1560784
Xylenes, Total	0.695		0.00870	0.150	50	10/17/2020 04:21	WG1560784
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 04:21*	WG1560784
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 04:21*	WG1560784
(S) 1,2-Dichloroethane-d4	*95.9*			*70.0-130*		*10/17/2020 04:21*	WG1560784

Sample Narrative:

L1271301-28 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	4.58		0.0247	0.100	1	10/14/2020 01:00	WG1557498
(S) o-Terphenyl	*104*			*31.0-160*		*10/14/2020 01:00*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2370		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:23	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	296		7.58	20.0	20	10/14/2020 05:09	WG1557664
Fluoride	1.08		0.0640	0.150	1	10/14/2020 04:51	WG1557664
Sulfate	531		11.9	100	20	10/14/2020 05:09	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0451		0.000735	0.00200	1	10/16/2020 01:29	WG1556443
Barium	0.0535		0.00778	0.0200	1	10/16/2020 01:29	WG1556443
Calcium	304		0.480	1.00	1	10/16/2020 01:29	WG1556443
Chromium	U		0.00149	0.00200	1	10/16/2020 01:29	WG1556443
Iron	U		0.0489	0.100	1	10/16/2020 01:29	WG1556443
Lead	U		0.00249	0.00500	1	10/16/2020 01:29	WG1556443
Manganese	0.00657	B	0.00132	0.00500	1	10/16/2020 01:29	WG1556443
Potassium	1.11	J	0.534	2.00	1	10/16/2020 01:29	WG1556443
Selenium	U		0.000657	0.00200	1	10/16/2020 01:29	WG1556443
Sodium	241		0.630	2.00	1	10/16/2020 01:29	WG1556443

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	7.35		0.628	2.00	20	10/16/2020 07:00	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*91.0*			*78.0-120*		*10/16/2020 07:00*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.226	1.00	20	10/17/2020 04:00	WG1560784
Benzene	1.24		0.00188	0.0200	20	10/17/2020 04:00	WG1560784
Bromodichloromethane	U		0.00272	0.0200	20	10/17/2020 04:00	WG1560784
Bromoform	U		0.00258	0.0200	20	10/17/2020 04:00	WG1560784
Bromomethane	U		0.0121	0.100	20	10/17/2020 04:00	WG1560784
n-Butylbenzene	0.00412	J	0.00314	0.0200	20	10/17/2020 04:00	WG1560784
sec-Butylbenzene	0.00881	J	0.00250	0.0200	20	10/17/2020 04:00	WG1560784
Carbon disulfide	0.00520	J	0.00192	0.0200	20	10/17/2020 04:00	WG1560784
Carbon tetrachloride	U		0.00256	0.0200	20	10/17/2020 04:00	WG1560784
Chlorobenzene	U		0.00232	0.0200	20	10/17/2020 04:00	WG1560784
Chlorodibromomethane	U		0.00280	0.0200	20	10/17/2020 04:00	WG1560784
Chloroethane	U		0.00384	0.100	20	10/17/2020 04:00	WG1560784
Chloroform	U		0.00222	0.100	20	10/17/2020 04:00	WG1560784
Chloromethane	U		0.0192	0.0500	20	10/17/2020 04:00	WG1560784
1,2-Dibromoethane	U		0.00252	0.0200	20	10/17/2020 04:00	WG1560784
1,1-Dichloroethane	U		0.00200	0.0200	20	10/17/2020 04:00	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00164	0.0200	20	10/17/2020 04:00	WG1560784
1,1-Dichloroethene	U		0.00376	0.0200	20	10/17/2020 04:00	WG1560784
cis-1,2-Dichloroethene	U		0.00252	0.0200	20	10/17/2020 04:00	WG1560784
trans-1,2-Dichloroethene	U		0.00298	0.0200	20	10/17/2020 04:00	WG1560784
1,2-Dichloropropane	U		0.00298	0.0200	20	10/17/2020 04:00	WG1560784
cis-1,3-Dichloropropene	U		0.00222	0.0200	20	10/17/2020 04:00	WG1560784
trans-1,3-Dichloropropene	U		0.00236	0.0200	20	10/17/2020 04:00	WG1560784
Ethylbenzene	0.151		0.00274	0.0200	20	10/17/2020 04:00	WG1560784
Isopropylbenzene	0.0974		0.00210	0.0200	20	10/17/2020 04:00	WG1560784
p-Isopropyltoluene	0.00397	J	0.00240	0.0200	20	10/17/2020 04:00	WG1560784
2-Butanone (MEK)	U		0.0238	0.200	20	10/17/2020 04:00	WG1560784
2-Hexanone	U		0.0157	0.200	20	10/17/2020 04:00	WG1560784
Methylene Chloride	U		0.00860	0.100	20	10/17/2020 04:00	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.00956	0.200	20	10/17/2020 04:00	WG1560784
Methyl tert-butyl ether	0.0836		0.00202	0.0200	20	10/17/2020 04:00	WG1560784
Naphthalene	0.116		0.0200	0.100	20	10/17/2020 04:00	WG1560784
n-Propylbenzene	0.114		0.00199	0.0200	20	10/17/2020 04:00	WG1560784
Styrene	U		0.00236	0.0200	20	10/17/2020 04:00	WG1560784
1,1,1,2-Tetrachloroethane	U		0.00294	0.0200	20	10/17/2020 04:00	WG1560784
1,1,2,2-Tetrachloroethane	U		0.00266	0.0200	20	10/17/2020 04:00	WG1560784
Tetrachloroethene	U		0.00600	0.0200	20	10/17/2020 04:00	WG1560784
Toluene	U		0.00556	0.0200	20	10/17/2020 04:00	WG1560784
1,1,1-Trichloroethane	U		0.00298	0.0200	20	10/17/2020 04:00	WG1560784
1,1,2-Trichloroethane	U		0.00316	0.0200	20	10/17/2020 04:00	WG1560784
Trichloroethene	U	J4	0.00380	0.0200	20	10/17/2020 04:00	WG1560784
1,2,4-Trimethylbenzene	0.347		0.00644	0.0200	20	10/17/2020 04:00	WG1560784
1,3,5-Trimethylbenzene	0.0783		0.00208	0.0200	20	10/17/2020 04:00	WG1560784
Vinyl chloride	U		0.00468	0.0200	20	10/17/2020 04:00	WG1560784
o-Xylene	0.00538	J	0.00348	0.0200	20	10/17/2020 04:00	WG1560784
m&p-Xylene	0.757		0.00860	0.0400	20	10/17/2020 04:00	WG1560784
Xylenes, Total	0.762		0.00348	0.0600	20	10/17/2020 04:00	WG1560784
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 04:00*	WG1560784
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 04:00*	WG1560784
(S) 1,2-Dichloroethane-d4	*93.8*			*70.0-130*		*10/17/2020 04:00*	WG1560784

Sample Narrative:

L1271301-29 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.46		0.0247	0.100	1	10/14/2020 01:25	WG1557498
(S) o-Terphenyl	*152*			*31.0-160*		*10/14/2020 01:25*	WG1557498

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1990		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:25	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	408		3.79	10.0	10	10/14/2020 05:46	WG1557664
Fluoride	1.19		0.0640	0.150	1	10/14/2020 05:28	WG1557664
Sulfate	7.39		0.594	5.00	1	10/14/2020 05:28	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00627		0.000735	0.00200	1	10/15/2020 04:06	WG1556445
Barium	12.3		0.0389	0.100	5	10/15/2020 10:48	WG1556445
Calcium	96.8		0.480	1.00	1	10/15/2020 04:06	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:06	WG1556445
Iron	0.0501	J	0.0489	0.100	1	10/15/2020 04:06	WG1556445
Lead	0.00712		0.00249	0.00500	1	10/15/2020 04:06	WG1556445
Manganese	0.0769		0.00132	0.00500	1	10/15/2020 04:06	WG1556445
Potassium	1.29	J	0.534	2.00	1	10/15/2020 04:06	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:06	WG1556445
Sodium	459		0.630	2.00	1	10/15/2020 04:06	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	2.93		0.314	1.00	10	10/16/2020 06:39	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*89.9*			*78.0-120*		*10/16/2020 06:39*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.113	0.500	10	10/17/2020 03:39	WG1560784
Benzene	0.915		0.000941	0.0100	10	10/17/2020 03:39	WG1560784
Bromodichloromethane	U		0.00136	0.0100	10	10/17/2020 03:39	WG1560784
Bromoform	U		0.00129	0.0100	10	10/17/2020 03:39	WG1560784
Bromomethane	U		0.00605	0.0500	10	10/17/2020 03:39	WG1560784
n-Butylbenzene	0.00844	J	0.00157	0.0100	10	10/17/2020 03:39	WG1560784
sec-Butylbenzene	0.0128		0.00125	0.0100	10	10/17/2020 03:39	WG1560784
Carbon disulfide	U		0.000962	0.0100	10	10/17/2020 03:39	WG1560784
Carbon tetrachloride	U		0.00128	0.0100	10	10/17/2020 03:39	WG1560784
Chlorobenzene	U		0.00116	0.0100	10	10/17/2020 03:39	WG1560784
Chlorodibromomethane	U		0.00140	0.0100	10	10/17/2020 03:39	WG1560784
Chloroethane	U		0.00192	0.0500	10	10/17/2020 03:39	WG1560784
Chloroform	U		0.00111	0.0500	10	10/17/2020 03:39	WG1560784
Chloromethane	U		0.00960	0.0250	10	10/17/2020 03:39	WG1560784
1,2-Dibromoethane	U		0.00126	0.0100	10	10/17/2020 03:39	WG1560784
1,1-Dichloroethane	U		0.00100	0.0100	10	10/17/2020 03:39	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000819	0.0100	10	10/17/2020 03:39	WG1560784
1,1-Dichloroethene	U		0.00188	0.0100	10	10/17/2020 03:39	WG1560784
cis-1,2-Dichloroethene	U		0.00126	0.0100	10	10/17/2020 03:39	WG1560784
trans-1,2-Dichloroethene	U		0.00149	0.0100	10	10/17/2020 03:39	WG1560784
1,2-Dichloropropane	U		0.00149	0.0100	10	10/17/2020 03:39	WG1560784
cis-1,3-Dichloropropene	U		0.00111	0.0100	10	10/17/2020 03:39	WG1560784
trans-1,3-Dichloropropene	U		0.00118	0.0100	10	10/17/2020 03:39	WG1560784
Ethylbenzene	0.0264		0.00137	0.0100	10	10/17/2020 03:39	WG1560784
Isopropylbenzene	0.125		0.00105	0.0100	10	10/17/2020 03:39	WG1560784
p-Isopropyltoluene	U		0.00120	0.0100	10	10/17/2020 03:39	WG1560784
2-Butanone (MEK)	U		0.0119	0.100	10	10/17/2020 03:39	WG1560784
2-Hexanone	U		0.00787	0.100	10	10/17/2020 03:39	WG1560784
Methylene Chloride	U		0.00430	0.0500	10	10/17/2020 03:39	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.00478	0.100	10	10/17/2020 03:39	WG1560784
Methyl tert-butyl ether	0.0751		0.00101	0.0100	10	10/17/2020 03:39	WG1560784
Naphthalene	0.0750		0.0100	0.0500	10	10/17/2020 03:39	WG1560784
n-Propylbenzene	0.153		0.000993	0.0100	10	10/17/2020 03:39	WG1560784
Styrene	U		0.00118	0.0100	10	10/17/2020 03:39	WG1560784
1,1,1,2-Tetrachloroethane	U		0.00147	0.0100	10	10/17/2020 03:39	WG1560784
1,1,2,2-Tetrachloroethane	U		0.00133	0.0100	10	10/17/2020 03:39	WG1560784
Tetrachloroethene	U		0.00300	0.0100	10	10/17/2020 03:39	WG1560784
Toluene	U		0.00278	0.0100	10	10/17/2020 03:39	WG1560784
1,1,1-Trichloroethane	U		0.00149	0.0100	10	10/17/2020 03:39	WG1560784
1,1,2-Trichloroethane	U		0.00158	0.0100	10	10/17/2020 03:39	WG1560784
Trichloroethene	U	J4	0.00190	0.0100	10	10/17/2020 03:39	WG1560784
1,2,4-Trimethylbenzene	U		0.00322	0.0100	10	10/17/2020 03:39	WG1560784
1,3,5-Trimethylbenzene	U		0.00104	0.0100	10	10/17/2020 03:39	WG1560784
Vinyl chloride	U		0.00234	0.0100	10	10/17/2020 03:39	WG1560784
o-Xylene	U		0.00174	0.0100	10	10/17/2020 03:39	WG1560784
m&p-Xylene	U		0.00430	0.0200	10	10/17/2020 03:39	WG1560784
Xylenes, Total	U		0.00174	0.0300	10	10/17/2020 03:39	WG1560784
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 03:39*	WG1560784
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 03:39*	WG1560784
(S) 1,2-Dichloroethane-d4	*98.5*			*70.0-130*		*10/17/2020 03:39*	WG1560784

Sample Narrative:

L1271301-30 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	17.9		0.247	1.00	10	10/14/2020 18:47	WG1557498
(S) o-Terphenyl	*289*	J1		*31.0-160*		*10/14/2020 18:47*	WG1557498

Sample Narrative:

L1271301-30 WG1557498: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2260		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:26	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	91.5		0.379	1.00	1	10/14/2020 06:05	WG1557664
Fluoride	3.28		0.0640	0.150	1	10/14/2020 06:05	WG1557664
Sulfate	686		11.9	100	20	10/14/2020 06:23	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00755		0.000735	0.00200	1	10/15/2020 04:09	WG1556445
Barium	0.0130	J	0.00778	0.0200	1	10/15/2020 04:09	WG1556445
Calcium	63.8		0.480	1.00	1	10/15/2020 04:09	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:09	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:09	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:09	WG1556445
Manganese	0.0546		0.00132	0.00500	1	10/15/2020 04:09	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:09	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:09	WG1556445
Sodium	655		0.630	2.00	1	10/15/2020 04:09	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.412		0.0314	0.100	1	10/16/2020 06:19	WG1560160
(S) a,a,a-Trifluorotoluene(FID)	*95.4*			*78.0-120*		*10/16/2020 06:19*	WG1560160

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 00:18	WG1560700
Benzene	0.00397		0.0000941	0.00100	1	10/18/2020 09:58	WG1561145
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 00:18	WG1560700
Bromoform	U		0.000129	0.00100	1	10/17/2020 00:18	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/17/2020 00:18	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 00:18	WG1560700
sec-Butylbenzene	0.00199		0.000125	0.00100	1	10/17/2020 00:18	WG1560700
Carbon disulfide	0.000500	J	0.0000962	0.00100	1	10/17/2020 00:18	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 00:18	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 00:18	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 00:18	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/17/2020 00:18	WG1560700
Chloroform	U		0.000111	0.00500	1	10/17/2020 00:18	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/17/2020 00:18	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 00:18	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 00:18	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 00:18	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 00:18	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 00:18	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 00:18	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 00:18	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 00:18	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 00:18	WG1560700
Ethylbenzene	0.00165		0.000137	0.00100	1	10/17/2020 00:18	WG1560700
Isopropylbenzene	0.0123		0.000105	0.00100	1	10/17/2020 00:18	WG1560700
p-Isopropyltoluene	0.000315	J	0.000120	0.00100	1	10/17/2020 00:18	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 00:18	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 00:18	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 00:18	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 00:18	WG1560700
Methyl tert-butyl ether	0.00138		0.000101	0.00100	1	10/17/2020 00:18	WG1560700
Naphthalene	0.00123	J	0.00100	0.00500	1	10/17/2020 00:18	WG1560700
n-Propylbenzene	0.00123		0.0000993	0.00100	1	10/17/2020 00:18	WG1560700
Styrene	U		0.000118	0.00100	1	10/17/2020 00:18	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 00:18	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 00:18	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 00:18	WG1560700
Toluene	0.000978	J	0.000278	0.00100	1	10/17/2020 00:18	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 00:18	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 00:18	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 00:18	WG1560700
1,2,4-Trimethylbenzene	0.00377		0.000322	0.00100	1	10/17/2020 00:18	WG1560700
1,3,5-Trimethylbenzene	0.00119		0.000104	0.00100	1	10/17/2020 00:18	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 00:18	WG1560700
o-Xylene	0.00588		0.000174	0.00100	1	10/17/2020 00:18	WG1560700
m&p-Xylene	0.0115		0.000430	0.00200	1	10/17/2020 00:18	WG1560700
Xylenes, Total	0.0174		0.000174	0.00300	1	10/17/2020 00:18	WG1560700
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 00:18*	WG1560700
(S) Toluene-d8	*107*			*80.0-120*		*10/18/2020 09:58*	WG1561145
(S) 4-Bromofluorobenzene	*99.5*			*77.0-126*		*10/17/2020 00:18*	WG1560700
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/18/2020 09:58*	WG1561145
(S) 1,2-Dichloroethane-d4	*95.1*			*70.0-130*		*10/17/2020 00:18*	WG1560700
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/18/2020 09:58*	WG1561145

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.28		0.0247	0.100	1	10/14/2020 03:08	WG1557908
(S) o-Terphenyl	*133*			*31.0-160*		*10/14/2020 03:08*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3060		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:27	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	195		37.9	100	100	10/14/2020 07:00	WG1557664
Fluoride	1.73		0.0640	0.150	1	10/14/2020 06:42	WG1557664
Sulfate	1300		59.4	500	100	10/15/2020 05:35	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.000795	J	0.000735	0.00200	1	10/15/2020 04:12	WG1556445
Barium	0.0176	J	0.00778	0.0200	1	10/15/2020 04:12	WG1556445
Calcium	515		0.480	1.00	1	10/15/2020 04:12	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:12	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:12	WG1556445
Lead	0.00690		0.00249	0.00500	1	10/15/2020 04:12	WG1556445
Manganese	0.0208		0.00132	0.00500	1	10/15/2020 04:12	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:12	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:12	WG1556445
Sodium	125		0.630	2.00	1	10/15/2020 04:12	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	22.0		0.628	2.00	20	10/16/2020 21:48	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*102*			*78.0-120*		*10/16/2020 21:48*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	10/17/2020 04:41	WG1560784
Benzene	1.73		0.00471	0.0500	50	10/17/2020 04:41	WG1560784
Bromodichloromethane	U		0.00680	0.0500	50	10/17/2020 04:41	WG1560784
Bromoform	U		0.00645	0.0500	50	10/17/2020 04:41	WG1560784
Bromomethane	U		0.0303	0.250	50	10/17/2020 04:41	WG1560784
n-Butylbenzene	U		0.00785	0.0500	50	10/17/2020 04:41	WG1560784
sec-Butylbenzene	U		0.00625	0.0500	50	10/17/2020 04:41	WG1560784
Carbon disulfide	0.0133	J	0.00481	0.0500	50	10/17/2020 04:41	WG1560784
Carbon tetrachloride	U		0.00640	0.0500	50	10/17/2020 04:41	WG1560784
Chlorobenzene	U		0.00580	0.0500	50	10/17/2020 04:41	WG1560784
Chlorodibromomethane	U		0.00700	0.0500	50	10/17/2020 04:41	WG1560784
Chloroethane	U		0.00960	0.250	50	10/17/2020 04:41	WG1560784
Chloroform	U		0.00555	0.250	50	10/17/2020 04:41	WG1560784
Chloromethane	U		0.0480	0.125	50	10/17/2020 04:41	WG1560784
1,2-Dibromoethane	U		0.00630	0.0500	50	10/17/2020 04:41	WG1560784
1,1-Dichloroethane	U		0.00500	0.0500	50	10/17/2020 04:41	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.00409	0.0500	50	10/17/2020 04:41	WG1560784
1,1-Dichloroethene	U		0.00940	0.0500	50	10/17/2020 04:41	WG1560784
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	10/17/2020 04:41	WG1560784
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	10/17/2020 04:41	WG1560784
1,2-Dichloropropane	U		0.00745	0.0500	50	10/17/2020 04:41	WG1560784
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	10/17/2020 04:41	WG1560784
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	10/17/2020 04:41	WG1560784
Ethylbenzene	0.788		0.00685	0.0500	50	10/17/2020 04:41	WG1560784
Isopropylbenzene	0.0840		0.00525	0.0500	50	10/17/2020 04:41	WG1560784
p-Isopropyltoluene	0.0145	J	0.00600	0.0500	50	10/17/2020 04:41	WG1560784
2-Butanone (MEK)	U		0.0595	0.500	50	10/17/2020 04:41	WG1560784
2-Hexanone	U		0.0394	0.500	50	10/17/2020 04:41	WG1560784
Methylene Chloride	U		0.0215	0.250	50	10/17/2020 04:41	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	10/17/2020 04:41	WG1560784
Methyl tert-butyl ether	U		0.00505	0.0500	50	10/17/2020 04:41	WG1560784
Naphthalene	0.207	J	0.0500	0.250	50	10/17/2020 04:41	WG1560784
n-Propylbenzene	0.0916		0.00497	0.0500	50	10/17/2020 04:41	WG1560784
Styrene	U		0.00590	0.0500	50	10/17/2020 04:41	WG1560784
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	10/17/2020 04:41	WG1560784
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	10/17/2020 04:41	WG1560784
Tetrachloroethene	U		0.0150	0.0500	50	10/17/2020 04:41	WG1560784
Toluene	0.236		0.0139	0.0500	50	10/17/2020 04:41	WG1560784
1,1,1-Trichloroethane	U		0.00745	0.0500	50	10/17/2020 04:41	WG1560784
1,1,2-Trichloroethane	U		0.00790	0.0500	50	10/17/2020 04:41	WG1560784
Trichloroethene	U	J4	0.00950	0.0500	50	10/17/2020 04:41	WG1560784
1,2,4-Trimethylbenzene	0.371		0.0161	0.0500	50	10/17/2020 04:41	WG1560784
1,3,5-Trimethylbenzene	0.0820		0.00520	0.0500	50	10/17/2020 04:41	WG1560784
Vinyl chloride	U		0.0117	0.0500	50	10/17/2020 04:41	WG1560784
o-Xylene	0.0254	J	0.00870	0.0500	50	10/17/2020 04:41	WG1560784
m&p-Xylene	1.85		0.0215	0.100	50	10/17/2020 04:41	WG1560784
Xylenes, Total	1.88		0.00870	0.150	50	10/17/2020 04:41	WG1560784
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 04:41*	WG1560784
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 04:41*	WG1560784
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*		*10/17/2020 04:41*	WG1560784

Sample Narrative:

L1271301-32 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.31		0.0247	0.100	1	10/14/2020 16:40	WG1557908
(S) o-Terphenyl	*108*			*31.0-160*		*10/14/2020 16:40*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3110		3.75	13.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:28	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	213		37.9	100	100	10/14/2020 08:14	WG1557664
Fluoride	0.865		0.0640	0.150	1	10/14/2020 07:55	WG1557664
Sulfate	980		59.4	500	100	10/15/2020 05:53	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0255		0.000735	0.00200	1	10/15/2020 04:16	WG1556445
Barium	0.0306		0.00778	0.0200	1	10/15/2020 04:16	WG1556445
Calcium	285		0.480	1.00	1	10/15/2020 04:16	WG1556445
Chromium	0.00250		0.00149	0.00200	1	10/15/2020 04:16	WG1556445
Iron	0.161		0.0489	0.100	1	10/15/2020 04:16	WG1556445
Lead	0.00411	J	0.00249	0.00500	1	10/15/2020 04:16	WG1556445
Manganese	0.00472	J	0.00132	0.00500	1	10/15/2020 04:16	WG1556445
Potassium	0.777	J	0.534	2.00	1	10/15/2020 04:16	WG1556445
Selenium	0.000967	J	0.000657	0.00200	1	10/15/2020 04:16	WG1556445
Sodium	318		0.630	2.00	1	10/15/2020 04:16	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	54.4		3.14	10.0	100	10/16/2020 23:03	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*107*			*78.0-120*		*10/16/2020 23:03*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		2.26	10.0	200	10/17/2020 05:22	WG1560784
Benzene	14.9		0.0188	0.200	200	10/17/2020 05:22	WG1560784
Bromodichloromethane	U		0.0272	0.200	200	10/17/2020 05:22	WG1560784
Bromoform	U		0.0258	0.200	200	10/17/2020 05:22	WG1560784
Bromomethane	U		0.121	1.00	200	10/17/2020 05:22	WG1560784
n-Butylbenzene	U		0.0314	0.200	200	10/17/2020 05:22	WG1560784
sec-Butylbenzene	U		0.0250	0.200	200	10/17/2020 05:22	WG1560784
Carbon disulfide	U		0.0192	0.200	200	10/17/2020 05:22	WG1560784
Carbon tetrachloride	U		0.0256	0.200	200	10/17/2020 05:22	WG1560784
Chlorobenzene	U		0.0232	0.200	200	10/17/2020 05:22	WG1560784
Chlorodibromomethane	U		0.0280	0.200	200	10/17/2020 05:22	WG1560784
Chloroethane	U		0.0384	1.00	200	10/17/2020 05:22	WG1560784
Chloroform	U		0.0222	1.00	200	10/17/2020 05:22	WG1560784
Chloromethane	U		0.192	0.500	200	10/17/2020 05:22	WG1560784
1,2-Dibromoethane	U		0.0252	0.200	200	10/17/2020 05:22	WG1560784
1,1-Dichloroethane	U		0.0200	0.200	200	10/17/2020 05:22	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0164	0.200	200	10/17/2020 05:22	WG1560784
1,1-Dichloroethene	U		0.0376	0.200	200	10/17/2020 05:22	WG1560784
cis-1,2-Dichloroethene	U		0.0252	0.200	200	10/17/2020 05:22	WG1560784
trans-1,2-Dichloroethene	U		0.0298	0.200	200	10/17/2020 05:22	WG1560784
1,2-Dichloropropane	U		0.0298	0.200	200	10/17/2020 05:22	WG1560784
cis-1,3-Dichloropropene	U		0.0222	0.200	200	10/17/2020 05:22	WG1560784
trans-1,3-Dichloropropene	U		0.0236	0.200	200	10/17/2020 05:22	WG1560784
Ethylbenzene	0.161	J	0.0274	0.200	200	10/17/2020 05:22	WG1560784
Isopropylbenzene	0.0376	J	0.0210	0.200	200	10/17/2020 05:22	WG1560784
p-Isopropyltoluene	U		0.0240	0.200	200	10/17/2020 05:22	WG1560784
2-Butanone (MEK)	U		0.238	2.00	200	10/17/2020 05:22	WG1560784
2-Hexanone	U		0.157	2.00	200	10/17/2020 05:22	WG1560784
Methylene Chloride	U		0.0860	1.00	200	10/17/2020 05:22	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.0956	2.00	200	10/17/2020 05:22	WG1560784
Methyl tert-butyl ether	0.105	J	0.0202	0.200	200	10/17/2020 05:22	WG1560784
Naphthalene	U		0.200	1.00	200	10/17/2020 05:22	WG1560784
n-Propylbenzene	0.0426	J	0.0199	0.200	200	10/17/2020 05:22	WG1560784
Styrene	U		0.0236	0.200	200	10/17/2020 05:22	WG1560784
1,1,1,2-Tetrachloroethane	U		0.0294	0.200	200	10/17/2020 05:22	WG1560784
1,1,2,2-Tetrachloroethane	U		0.0266	0.200	200	10/17/2020 05:22	WG1560784
Tetrachloroethene	U		0.0600	0.200	200	10/17/2020 05:22	WG1560784
Toluene	0.295		0.0556	0.200	200	10/17/2020 05:22	WG1560784
1,1,1-Trichloroethane	U		0.0298	0.200	200	10/17/2020 05:22	WG1560784
1,1,2-Trichloroethane	U		0.0316	0.200	200	10/17/2020 05:22	WG1560784
Trichloroethene	U	J4	0.0380	0.200	200	10/17/2020 05:22	WG1560784
1,2,4-Trimethylbenzene	0.0943	J	0.0644	0.200	200	10/17/2020 05:22	WG1560784
1,3,5-Trimethylbenzene	U		0.0208	0.200	200	10/17/2020 05:22	WG1560784
Vinyl chloride	U		0.0468	0.200	200	10/17/2020 05:22	WG1560784
o-Xylene	0.0359	J	0.0348	0.200	200	10/17/2020 05:22	WG1560784
m&p-Xylene	0.253	J	0.0860	0.400	200	10/17/2020 05:22	WG1560784
Xylenes, Total	0.289	J	0.0348	0.600	200	10/17/2020 05:22	WG1560784
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 05:22*	WG1560784
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 05:22*	WG1560784
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*10/17/2020 05:22*	WG1560784

Sample Narrative:

L1271301-33 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	16.5		0.123	0.500	5	10/14/2020 20:30	WG1557908
(S) o-Terphenyl	*102*			*31.0-160*		*10/14/2020 20:30*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7810		9.39	33.3	1	10/13/2020 17:56	WG1558062

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	78.5	V	2.50	5.00	50	10/15/2020 22:00	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	390		37.9	100	100	10/14/2020 08:51	WG1557664
Fluoride	3.64		0.0640	0.150	1	10/14/2020 08:32	WG1557664
Sulfate	4100		59.4	500	100	10/14/2020 08:51	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00301		0.000735	0.00200	1	10/15/2020 04:19	WG1556445
Barium	0.0128	J	0.00778	0.0200	1	10/15/2020 04:19	WG1556445
Calcium	490		0.480	1.00	1	10/15/2020 04:19	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:19	WG1556445
Iron	0.0795	J	0.0489	0.100	1	10/15/2020 04:19	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:19	WG1556445
Manganese	0.450		0.00132	0.00500	1	10/15/2020 04:19	WG1556445
Potassium	4.05		0.534	2.00	1	10/15/2020 04:19	WG1556445
Selenium	0.0377		0.000657	0.00200	1	10/15/2020 04:19	WG1556445
Sodium	682		0.630	2.00	1	10/15/2020 04:19	WG1556445

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 00:38	WG1560700
Benzene	U		0.0000941	0.00100	1	10/18/2020 10:21	WG1561145
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 00:38	WG1560700
Bromoform	U		0.000129	0.00100	1	10/17/2020 00:38	WG1560700
Bromomethane	U	J4	0.000605	0.00500	1	10/17/2020 00:38	WG1560700
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 00:38	WG1560700
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 00:38	WG1560700
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 00:38	WG1560700
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 00:38	WG1560700
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 00:38	WG1560700
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 00:38	WG1560700
Chloroethane	U		0.000192	0.00500	1	10/17/2020 00:38	WG1560700
Chloroform	U		0.000111	0.00500	1	10/17/2020 00:38	WG1560700
Chloromethane	U		0.000960	0.00250	1	10/17/2020 00:38	WG1560700
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 00:38	WG1560700
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 00:38	WG1560700
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 00:38	WG1560700
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 00:38	WG1560700
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 00:38	WG1560700
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 00:38	WG1560700
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 00:38	WG1560700
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 00:38	WG1560700
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 00:38	WG1560700

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 00:38	WG1560700
Isopropylbenzene	0.000110	J	0.000105	0.00100	1	10/17/2020 00:38	WG1560700
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 00:38	WG1560700
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 00:38	WG1560700
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 00:38	WG1560700
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 00:38	WG1560700
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 00:38	WG1560700
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 00:38	WG1560700
Naphthalene	U		0.00100	0.00500	1	10/17/2020 00:38	WG1560700
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 00:38	WG1560700
Styrene	U		0.000118	0.00100	1	10/17/2020 00:38	WG1560700
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 00:38	WG1560700
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 00:38	WG1560700
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 00:38	WG1560700
Toluene	U		0.000278	0.00100	1	10/17/2020 00:38	WG1560700
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 00:38	WG1560700
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 00:38	WG1560700
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 00:38	WG1560700
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 00:38	WG1560700
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 00:38	WG1560700
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 00:38	WG1560700
o-Xylene	U		0.000174	0.00100	1	10/17/2020 00:38	WG1560700
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 00:38	WG1560700
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 00:38	WG1560700
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 00:38*	WG1560700
(S) Toluene-d8	*110*			*80.0-120*		*10/18/2020 10:21*	WG1561145
(S) 4-Bromofluorobenzene	*97.4*			*77.0-126*		*10/17/2020 00:38*	WG1560700
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/18/2020 10:21*	WG1561145
(S) 1,2-Dichloroethane-d4	*96.5*			*70.0-130*		*10/17/2020 00:38*	WG1560700
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/18/2020 10:21*	WG1561145

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.526		0.0247	0.100	1	10/14/2020 08:39	WG1557908
(S) o-Terphenyl	*101*			*31.0-160*		*10/14/2020 08:39*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2910		3.75	13.3	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:36	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	210		37.9	100	100	10/14/2020 09:27	WG1557664
Fluoride	1.05		0.0640	0.150	1	10/14/2020 09:09	WG1557664
Sulfate	1280		59.4	500	100	10/15/2020 06:11	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00318		0.000735	0.00200	1	10/15/2020 04:22	WG1556445
Barium	0.0163	J	0.00778	0.0200	1	10/15/2020 04:22	WG1556445
Calcium	293		0.480	1.00	1	10/15/2020 04:22	WG1556445
Chromium	0.00157	J	0.00149	0.00200	1	10/15/2020 04:22	WG1556445
Iron	0.495		0.0489	0.100	1	10/15/2020 04:22	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:22	WG1556445
Manganese	0.124		0.00132	0.00500	1	10/15/2020 04:22	WG1556445
Potassium	0.913	J	0.534	2.00	1	10/15/2020 04:22	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:22	WG1556445
Sodium	171		0.630	2.00	1	10/15/2020 04:22	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.498		0.0314	0.100	1	10/16/2020 18:51	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*78.0-120*		*10/16/2020 18:51*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 01:36	WG1560784
Benzene	0.00334		0.0000941	0.00100	1	10/17/2020 01:36	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 01:36	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 01:36	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 01:36	WG1560784
n-Butylbenzene	0.000237	J	0.000157	0.00100	1	10/17/2020 01:36	WG1560784
sec-Butylbenzene	0.00644		0.000125	0.00100	1	10/17/2020 01:36	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 01:36	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 01:36	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 01:36	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 01:36	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 01:36	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 01:36	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 01:36	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 01:36	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 01:36	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 01:36	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 01:36	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 01:36	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 01:36	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 01:36	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 01:36	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 01:36	WG1560784
Ethylbenzene	0.000310	J	0.000137	0.00100	1	10/17/2020 01:36	WG1560784
Isopropylbenzene	0.0462		0.000105	0.00100	1	10/17/2020 01:36	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 01:36	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 01:36	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 01:36	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 01:36	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 01:36	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 01:36	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 01:36	WG1560784
n-Propylbenzene	0.00349		0.0000993	0.00100	1	10/17/2020 01:36	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 01:36	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 01:36	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 01:36	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 01:36	WG1560784
Toluene	0.000323	J	0.000278	0.00100	1	10/17/2020 01:36	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 01:36	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 01:36	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 01:36	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 01:36	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 01:36	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 01:36	WG1560784
o-Xylene	0.000349	J	0.000174	0.00100	1	10/17/2020 01:36	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 01:36	WG1560784
Xylenes, Total	0.000349	J	0.000174	0.00300	1	10/17/2020 01:36	WG1560784
(S) Toluene-d8	*98.1*			*80.0-120*		*10/17/2020 01:36*	WG1560784
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 01:36*	WG1560784
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*10/17/2020 01:36*	WG1560784

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.99		0.0247	0.100	1	10/14/2020 03:59	WG1557908
(S) o-Terphenyl	*139*			*31.0-160*		*10/14/2020 03:59*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1420		2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:37	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	128		1.90	5.00	5	10/14/2020 10:41	WG1557664
Fluoride	1.15		0.0640	0.150	1	10/14/2020 09:46	WG1557664
Sulfate	69.3	P1	2.97	25.0	5	10/14/2020 10:41	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00207		0.000735	0.00200	1	10/15/2020 04:25	WG1556445
Barium	0.175		0.00778	0.0200	1	10/15/2020 04:25	WG1556445
Calcium	142		0.480	1.00	1	10/15/2020 04:25	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:25	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:25	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:25	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:25	WG1556445
Potassium	1.17	J	0.534	2.00	1	10/15/2020 04:25	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:25	WG1556445
Sodium	218		0.630	2.00	1	10/15/2020 04:25	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	71.6		1.57	5.00	50	10/16/2020 22:38	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*108*			*78.0-120*		*10/16/2020 22:38*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		2.82	12.5	250	10/17/2020 05:43	WG1560784
Benzene	0.0424	J	0.0235	0.250	250	10/17/2020 05:43	WG1560784
Bromodichloromethane	U		0.0340	0.250	250	10/17/2020 05:43	WG1560784
Bromoform	U		0.0323	0.250	250	10/17/2020 05:43	WG1560784
Bromomethane	U		0.151	1.25	250	10/17/2020 05:43	WG1560784
n-Butylbenzene	U		0.0393	0.250	250	10/17/2020 05:43	WG1560784
sec-Butylbenzene	U		0.0313	0.250	250	10/17/2020 05:43	WG1560784
Carbon disulfide	U		0.0241	0.250	250	10/17/2020 05:43	WG1560784
Carbon tetrachloride	U		0.0320	0.250	250	10/17/2020 05:43	WG1560784
Chlorobenzene	U		0.0290	0.250	250	10/17/2020 05:43	WG1560784
Chlorodibromomethane	U		0.0350	0.250	250	10/17/2020 05:43	WG1560784
Chloroethane	U		0.0480	1.25	250	10/17/2020 05:43	WG1560784
Chloroform	U		0.0278	1.25	250	10/17/2020 05:43	WG1560784
Chloromethane	U		0.240	0.625	250	10/17/2020 05:43	WG1560784
1,2-Dibromoethane	U		0.0315	0.250	250	10/17/2020 05:43	WG1560784
1,1-Dichloroethane	U		0.0250	0.250	250	10/17/2020 05:43	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0205	0.250	250	10/17/2020 05:43	WG1560784
1,1-Dichloroethene	U		0.0470	0.250	250	10/17/2020 05:43	WG1560784
cis-1,2-Dichloroethene	U		0.0315	0.250	250	10/17/2020 05:43	WG1560784
trans-1,2-Dichloroethene	U		0.0373	0.250	250	10/17/2020 05:43	WG1560784
1,2-Dichloropropane	U		0.0373	0.250	250	10/17/2020 05:43	WG1560784
cis-1,3-Dichloropropene	U		0.0278	0.250	250	10/17/2020 05:43	WG1560784
trans-1,3-Dichloropropene	U		0.0295	0.250	250	10/17/2020 05:43	WG1560784
Ethylbenzene	U		0.0343	0.250	250	10/17/2020 05:43	WG1560784
Isopropylbenzene	0.0931	J	0.0263	0.250	250	10/17/2020 05:43	WG1560784
p-Isopropyltoluene	U		0.0300	0.250	250	10/17/2020 05:43	WG1560784
2-Butanone (MEK)	U		0.298	2.50	250	10/17/2020 05:43	WG1560784
2-Hexanone	U		0.197	2.50	250	10/17/2020 05:43	WG1560784
Methylene Chloride	U		0.108	1.25	250	10/17/2020 05:43	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.120	2.50	250	10/17/2020 05:43	WG1560784
Methyl tert-butyl ether	40.5		0.0253	0.250	250	10/17/2020 05:43	WG1560784
Naphthalene	U		0.250	1.25	250	10/17/2020 05:43	WG1560784
n-Propylbenzene	0.0692	J	0.0248	0.250	250	10/17/2020 05:43	WG1560784
Styrene	U		0.0295	0.250	250	10/17/2020 05:43	WG1560784
1,1,1,2-Tetrachloroethane	U		0.0368	0.250	250	10/17/2020 05:43	WG1560784
1,1,2,2-Tetrachloroethane	U		0.0333	0.250	250	10/17/2020 05:43	WG1560784
Tetrachloroethene	U		0.0750	0.250	250	10/17/2020 05:43	WG1560784
Toluene	U		0.0695	0.250	250	10/17/2020 05:43	WG1560784
1,1,1-Trichloroethane	U		0.0373	0.250	250	10/17/2020 05:43	WG1560784
1,1,2-Trichloroethane	U		0.0395	0.250	250	10/17/2020 05:43	WG1560784
Trichloroethene	U	J4	0.0475	0.250	250	10/17/2020 05:43	WG1560784
1,2,4-Trimethylbenzene	U		0.0805	0.250	250	10/17/2020 05:43	WG1560784
1,3,5-Trimethylbenzene	U		0.0260	0.250	250	10/17/2020 05:43	WG1560784
Vinyl chloride	U		0.0585	0.250	250	10/17/2020 05:43	WG1560784
o-Xylene	U		0.0435	0.250	250	10/17/2020 05:43	WG1560784
m&p-Xylene	U		0.108	0.500	250	10/17/2020 05:43	WG1560784
Xylenes, Total	U		0.0435	0.750	250	10/17/2020 05:43	WG1560784
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 05:43*	WG1560784
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/17/2020 05:43*	WG1560784
(S) 1,2-Dichloroethane-d4	*90.9*			*70.0-130*		*10/17/2020 05:43*	WG1560784

Sample Narrative:

L1271301-36 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.91		0.0247	0.100	1	10/14/2020 16:14	WG1557908
(S) o-Terphenyl	*107*			*31.0-160*		*10/14/2020 16:14*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1450		2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:39	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	71.7		0.379	1.00	1	10/14/2020 11:55	WG1557664
Fluoride	1.36		0.0640	0.150	1	10/14/2020 11:55	WG1557664
Sulfate	702		11.9	100	20	10/14/2020 12:13	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00192	J	0.000735	0.00200	1	10/15/2020 04:29	WG1556445
Barium	0.0238		0.00778	0.0200	1	10/15/2020 04:29	WG1556445
Calcium	241		0.480	1.00	1	10/15/2020 04:29	WG1556445
Chromium	0.00210		0.00149	0.00200	1	10/15/2020 04:29	WG1556445
Iron	0.312		0.0489	0.100	1	10/15/2020 04:29	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:29	WG1556445
Manganese	0.0245		0.00132	0.00500	1	10/15/2020 04:29	WG1556445
Potassium	5.28		0.534	2.00	1	10/15/2020 04:29	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:29	WG1556445
Sodium	73.7		0.630	2.00	1	10/15/2020 04:29	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.15		0.0314	0.100	1	10/16/2020 19:16	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*10/16/2020 19:16*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 01:57	WG1560784
Benzene	0.00631		0.0000941	0.00100	1	10/17/2020 01:57	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 01:57	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 01:57	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 01:57	WG1560784
n-Butylbenzene	0.000164	J	0.000157	0.00100	1	10/17/2020 01:57	WG1560784
sec-Butylbenzene	0.0389		0.000125	0.00100	1	10/17/2020 01:57	WG1560784
Carbon disulfide	0.000721	J	0.0000962	0.00100	1	10/17/2020 01:57	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 01:57	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 01:57	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 01:57	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 01:57	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 01:57	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 01:57	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 01:57	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 01:57	WG1560784

Received by OCD: 6/23/2021 4:05:29 PM

DUP-REST-02
Collected date/time: 10/06/20 11:00
L1271301

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 01:57	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 01:57	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 01:57	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 01:57	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 01:57	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 01:57	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 01:57	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 01:57	WG1560784
Isopropylbenzene	0.0221		0.000105	0.00100	1	10/17/2020 01:57	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 01:57	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 01:57	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 01:57	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 01:57	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 01:57	WG1560784
Methyl tert-butyl ether	0.000506	J	0.000101	0.00100	1	10/17/2020 01:57	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 01:57	WG1560784
n-Propylbenzene	0.00195		0.0000993	0.00100	1	10/17/2020 01:57	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 01:57	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 01:57	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 01:57	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 01:57	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 01:57	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 01:57	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 01:57	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 01:57	WG1560784
1,2,4-Trimethylbenzene	0.000351	J	0.000322	0.00100	1	10/17/2020 01:57	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 01:57	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 01:57	WG1560784
o-Xylene	0.000193	J	0.000174	0.00100	1	10/17/2020 01:57	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 01:57	WG1560784
Xylenes, Total	0.000193	J	0.000174	0.00300	1	10/17/2020 01:57	WG1560784
(S) Toluene-d8	*85.0*			*80.0-120*		*10/17/2020 01:57*	WG1560784
(S) 4-Bromofluorobenzene	*86.3*			*77.0-126*		*10/17/2020 01:57*	WG1560784
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*10/17/2020 01:57*	WG1560784

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.10		0.0247	0.100	1	10/14/2020 04:24	WG1557908
(S) o-Terphenyl	*111*			*31.0-160*		*10/14/2020 04:24*	WG1557908

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	4970		5.64	20.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.39		0.0500	0.100	1	10/15/2020 21:40	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	366		3.79	10.0	10	10/14/2020 12:32	WG1557664
Fluoride	1.32	J	0.640	1.50	10	10/14/2020 12:32	WG1557664
Sulfate	2530		59.4	500	100	10/14/2020 12:50	WG1557664

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00356		0.000735	0.00200	1	10/15/2020 04:32	WG1556445
Barium	0.0101	J	0.00778	0.0200	1	10/15/2020 04:32	WG1556445
Calcium	503		0.480	1.00	1	10/15/2020 04:32	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:32	WG1556445
Iron	0.0671	J	0.0489	0.100	1	10/15/2020 04:32	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:32	WG1556445
Manganese	0.0339		0.00132	0.00500	1	10/15/2020 04:32	WG1556445
Potassium	1.64	J	0.534	2.00	1	10/15/2020 04:32	WG1556445
Selenium	0.00527		0.000657	0.00200	1	10/15/2020 04:32	WG1556445
Sodium	251		0.630	2.00	1	10/15/2020 04:32	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 19:42	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*10/16/2020 19:42*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 02:17	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 02:17	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 02:17	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 02:17	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 02:17	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 02:17	WG1560784
sec-Butylbenzene	0.000176	J	0.000125	0.00100	1	10/17/2020 02:17	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 02:17	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 02:17	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 02:17	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 02:17	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 02:17	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 02:17	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 02:17	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 02:17	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 02:17	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 02:17	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 02:17	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 02:17	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 02:17	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 02:17	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 02:17	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 02:17	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 02:17	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 02:17	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 02:17	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 02:17	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 02:17	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 02:17	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 02:17	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 02:17	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 02:17	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 02:17	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 02:17	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 02:17	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 02:17	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 02:17	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 02:17	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 02:17	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 02:17	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 02:17	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 02:17	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 02:17	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 02:17	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 02:17	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 02:17	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 02:17	WG1560784
(S) Toluene-d8	*98.2*			*80.0-120*		*10/17/2020 02:17*	WG1560784
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/17/2020 02:17*	WG1560784
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*10/17/2020 02:17*	WG1560784

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.129		0.0247	0.100	1	10/14/2020 08:13	WG1557908
(S) o-Terphenyl	*97.9*			*31.0-160*		*10/14/2020 08:13*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3660		5.64	20.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:41	WG1559002

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.0180	0.0500	10	10/16/2020 00:39	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	219		3.79	10.0	10	10/14/2020 13:09	WG1557664
Fluoride	1.21	J	0.640	1.50	10	10/14/2020 13:09	WG1557664
Sulfate	1780		59.4	500	100	10/14/2020 13:27	WG1557664

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:57	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.461		0.0254	0.200	1	10/12/2020 21:49	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00634		0.000735	0.00200	1	10/15/2020 04:42	WG1556445
Barium	0.0193	J	0.00778	0.0200	1	10/15/2020 04:42	WG1556445
Cadmium	U		0.000478	0.00100	1	10/15/2020 04:42	WG1556445
Calcium	401		0.480	1.00	1	10/15/2020 04:42	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:42	WG1556445
Cobalt	U		0.000477	0.00200	1	10/15/2020 04:42	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:42	WG1556445
Lead	0.00319	J	0.00249	0.00500	1	10/15/2020 04:42	WG1556445
Manganese	0.222		0.00132	0.00500	1	10/15/2020 04:42	WG1556445
Nickel	0.00110	J	0.000952	0.00200	1	10/15/2020 04:42	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:42	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:42	WG1556445
Sodium	190		0.630	2.00	1	10/15/2020 04:42	WG1556445
Uranium	U		0.00754	0.0200	1	10/15/2020 04:42	WG1556445
Vanadium	U		0.000986	0.00500	1	10/15/2020 04:42	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.587		0.0314	0.100	1	10/16/2020 20:07	WG1560609

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*78.0-120*		*10/16/2020 20:07*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/18/2020 06:49	WG1560896
Benzene	0.00279	B	0.0000941	0.00100	1	10/18/2020 06:49	WG1560896
Bromodichloromethane	U		0.000136	0.00100	1	10/18/2020 06:49	WG1560896
Bromoform	U		0.000129	0.00100	1	10/18/2020 06:49	WG1560896
Bromomethane	U		0.000605	0.00500	1	10/18/2020 06:49	WG1560896
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2020 06:49	WG1560896
sec-Butylbenzene	0.00303		0.000125	0.00100	1	10/18/2020 06:49	WG1560896
Carbon disulfide	0.000755	B J	0.0000962	0.00100	1	10/18/2020 06:49	WG1560896
Carbon tetrachloride	U		0.000128	0.00100	1	10/18/2020 06:49	WG1560896
Chlorobenzene	U		0.000116	0.00100	1	10/18/2020 06:49	WG1560896
Chlorodibromomethane	U		0.000140	0.00100	1	10/18/2020 06:49	WG1560896
Chloroethane	U		0.000192	0.00500	1	10/18/2020 06:49	WG1560896
Chloroform	U		0.000111	0.00500	1	10/18/2020 06:49	WG1560896
Chloromethane	U		0.000960	0.00250	1	10/18/2020 06:49	WG1560896
1,2-Dibromoethane	U		0.000126	0.00100	1	10/18/2020 06:49	WG1560896
1,1-Dichloroethane	U		0.000100	0.00100	1	10/18/2020 06:49	WG1560896
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/18/2020 06:49	WG1560896
1,1-Dichloroethene	U		0.000188	0.00100	1	10/18/2020 06:49	WG1560896
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/18/2020 06:49	WG1560896
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/18/2020 06:49	WG1560896
1,2-Dichloropropane	U		0.000149	0.00100	1	10/18/2020 06:49	WG1560896
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/18/2020 06:49	WG1560896
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/18/2020 06:49	WG1560896
Ethylbenzene	0.000472	J	0.000137	0.00100	1	10/18/2020 06:49	WG1560896
Isopropylbenzene	0.0231		0.000105	0.00100	1	10/18/2020 06:49	WG1560896
p-Isopropyltoluene	U		0.000120	0.00100	1	10/18/2020 06:49	WG1560896
2-Butanone (MEK)	U		0.00119	0.0100	1	10/18/2020 06:49	WG1560896
2-Hexanone	U		0.000787	0.0100	1	10/18/2020 06:49	WG1560896
Methylene Chloride	U		0.000430	0.00500	1	10/18/2020 06:49	WG1560896
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/18/2020 06:49	WG1560896
Methyl tert-butyl ether	0.000180	J	0.000101	0.00100	1	10/18/2020 06:49	WG1560896
Naphthalene	U	J4	0.00100	0.00500	1	10/18/2020 06:49	WG1560896
n-Propylbenzene	0.00136		0.0000993	0.00100	1	10/18/2020 06:49	WG1560896
Styrene	U		0.000118	0.00100	1	10/18/2020 06:49	WG1560896
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/18/2020 06:49	WG1560896
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/18/2020 06:49	WG1560896
Tetrachloroethene	U		0.000300	0.00100	1	10/18/2020 06:49	WG1560896
Toluene	U		0.000278	0.00100	1	10/18/2020 06:49	WG1560896
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/18/2020 06:49	WG1560896
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/18/2020 06:49	WG1560896
Trichloroethene	U		0.000190	0.00100	1	10/18/2020 06:49	WG1560896
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2020 06:49	WG1560896
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2020 06:49	WG1560896
Vinyl chloride	U		0.000234	0.00100	1	10/18/2020 06:49	WG1560896
o-Xylene	U		0.000174	0.00100	1	10/18/2020 06:49	WG1560896
m&p-Xylene	0.00224		0.000430	0.00200	1	10/18/2020 06:49	WG1560896
Xylenes, Total	0.00224	J	0.000174	0.00300	1	10/18/2020 06:49	WG1560896
(S) Toluene-d8	*107*			*80.0-120*		*10/18/2020 06:49*	WG1560896
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/18/2020 06:49*	WG1560896
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/18/2020 06:49*	WG1560896

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.930		0.0247	0.100	1	10/15/2020 09:05	WG1557911
(S) o-Terphenyl	*107*			*31.0-160*		*10/15/2020 09:05*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3760		3.75	13.3	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	7.25		0.250	0.500	5	10/15/2020 21:42	WG1559002

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	0.0565		0.00180	0.00500	1	10/16/2020 00:42	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	126		37.9	100	100	10/14/2020 14:04	WG1557664
Fluoride	0.395		0.0640	0.150	1	10/14/2020 13:45	WG1557664
Sulfate	2140		59.4	500	100	10/14/2020 14:04	WG1557664

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 09:59	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.577		0.0254	0.200	1	10/12/2020 21:52	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00173	J	0.000735	0.00200	1	10/15/2020 04:45	WG1556445
Barium	0.00955	J	0.00778	0.0200	1	10/15/2020 04:45	WG1556445
Cadmium	U		0.000478	0.00100	1	10/15/2020 04:45	WG1556445
Calcium	533		0.480	1.00	1	10/15/2020 04:45	WG1556445
Chromium	0.00173	J	0.00149	0.00200	1	10/15/2020 04:45	WG1556445
Cobalt	U		0.000477	0.00200	1	10/15/2020 04:45	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:45	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:45	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:45	WG1556445
Nickel	U		0.000952	0.00200	1	10/15/2020 04:45	WG1556445
Potassium	0.642	J	0.534	2.00	1	10/15/2020 04:45	WG1556445
Selenium	0.00269		0.000657	0.00200	1	10/15/2020 04:45	WG1556445
Sodium	141		0.630	2.00	1	10/15/2020 04:45	WG1556445
Uranium	0.0268		0.00754	0.0200	1	10/15/2020 04:45	WG1556445
Vanadium	0.0134		0.000986	0.00500	1	10/15/2020 04:45	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 20:32	WG1560609

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*108*			*78.0-120*		*10/16/2020 20:32*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 02:37	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 02:37	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 02:37	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 02:37	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 02:37	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 02:37	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 02:37	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 02:37	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 02:37	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 02:37	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 02:37	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 02:37	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 02:37	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 02:37	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 02:37	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 02:37	WG1560784
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 02:37	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 02:37	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 02:37	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 02:37	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 02:37	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 02:37	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 02:37	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 02:37	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 02:37	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 02:37	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 02:37	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 02:37	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 02:37	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 02:37	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 02:37	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 02:37	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 02:37	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 02:37	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 02:37	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 02:37	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 02:37	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 02:37	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 02:37	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 02:37	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 02:37	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 02:37	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 02:37	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 02:37	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 02:37	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 02:37	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 02:37	WG1560784
(S) Toluene-d8	*101*			*80.0-120*		*10/17/2020 02:37*	WG1560784
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*10/17/2020 02:37*	WG1560784
(S) 1,2-Dichloroethane-d4	*96.6*			*70.0-130*		*10/17/2020 02:37*	WG1560784

DUP-REST-05
Collected date/time: 10/06/20 12:00
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0684	J	0.0247	0.100	1	10/14/2020 05:15	WG1557908
(S) o-Terphenyl	*101*			*31.0-160*		*10/14/2020 05:15*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	6.00	J	2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:44	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.501	J	0.379	1.00	1	10/15/2020 00:30	WG1557662
Fluoride	U		0.0640	0.150	1	10/15/2020 00:30	WG1557662
Sulfate	0.714	J	0.594	5.00	1	10/15/2020 00:30	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/15/2020 04:48	WG1556445
Barium	U		0.00778	0.0200	1	10/15/2020 04:48	WG1556445
Calcium	U		0.480	1.00	1	10/15/2020 04:48	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:48	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:48	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:48	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:48	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:48	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:48	WG1556445
Sodium	U		0.630	2.00	1	10/15/2020 04:48	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 17:10	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*10/16/2020 17:10*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 00:35	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 00:35	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 00:35	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 00:35	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 00:35	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 00:35	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 00:35	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 00:35	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 00:35	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 00:35	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 00:35	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 00:35	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 00:35	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 00:35	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 00:35	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 00:35	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 00:35	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 00:35	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 00:35	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 00:35	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 00:35	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 00:35	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 00:35	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 00:35	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 00:35	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 00:35	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 00:35	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 00:35	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 00:35	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 00:35	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 00:35	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 00:35	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 00:35	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 00:35	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 00:35	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 00:35	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 00:35	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 00:35	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 00:35	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 00:35	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 00:35	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 00:35	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 00:35	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 00:35	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 00:35	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 00:35	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 00:35	WG1560784
(S) Toluene-d8	*102*			*80.0-120*		*10/17/2020 00:35*	WG1560784
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 00:35*	WG1560784
(S) 1,2-Dichloroethane-d4	*99.0*			*70.0-130*		*10/17/2020 00:35*	WG1560784

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0432	J	0.0247	0.100	1	10/14/2020 05:40	WG1557908
(S) o-Terphenyl	*96.3*			*31.0-160*		*10/14/2020 05:40*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5.00	J	2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:45	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.468	J	0.379	1.00	1	10/15/2020 00:48	WG1557662
Fluoride	U		0.0640	0.150	1	10/15/2020 00:48	WG1557662
Sulfate	U		0.594	5.00	1	10/15/2020 00:48	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/15/2020 04:51	WG1556445
Barium	U		0.00778	0.0200	1	10/15/2020 04:51	WG1556445
Calcium	U		0.480	1.00	1	10/15/2020 04:51	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:51	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:51	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:51	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:51	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:51	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:51	WG1556445
Sodium	U		0.630	2.00	1	10/15/2020 04:51	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 17:35	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*10/16/2020 17:35*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 00:55	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 00:55	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 00:55	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 00:55	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 00:55	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 00:55	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 00:55	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 00:55	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 00:55	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 00:55	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 00:55	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 00:55	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 00:55	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 00:55	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 00:55	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 00:55	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 00:55	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 00:55	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 00:55	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 00:55	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 00:55	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 00:55	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 00:55	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 00:55	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 00:55	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 00:55	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 00:55	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 00:55	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 00:55	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 00:55	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 00:55	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 00:55	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 00:55	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 00:55	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 00:55	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 00:55	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 00:55	WG1560784
Toluene	0.000304	J	0.000278	0.00100	1	10/17/2020 00:55	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 00:55	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 00:55	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 00:55	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 00:55	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 00:55	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 00:55	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 00:55	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 00:55	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 00:55	WG1560784
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 00:55*	WG1560784
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 00:55*	WG1560784
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/17/2020 00:55*	WG1560784

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0467	J	0.0247	0.100	1	10/14/2020 06:06	WG1557908
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/14/2020 06:06*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:50	WG1559002

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:43	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	0.461	J	0.379	1.00	1	10/15/2020 01:06	WG1557662
Fluoride	U		0.0640	0.150	1	10/15/2020 01:06	WG1557662
Sulfate	U		0.594	5.00	1	10/15/2020 01:06	WG1557662

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 10:01	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	U		0.0254	0.200	1	10/12/2020 21:55	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/15/2020 04:55	WG1556445
Barium	U		0.00778	0.0200	1	10/15/2020 04:55	WG1556445
Cadmium	U		0.000478	0.00100	1	10/15/2020 04:55	WG1556445
Calcium	U		0.480	1.00	1	10/15/2020 04:55	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:55	WG1556445
Cobalt	U		0.000477	0.00200	1	10/15/2020 04:55	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:55	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:55	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:55	WG1556445
Nickel	U		0.000952	0.00200	1	10/15/2020 04:55	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:55	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:55	WG1556445
Sodium	U		0.630	2.00	1	10/15/2020 04:55	WG1556445
Uranium	U		0.00754	0.0200	1	10/15/2020 04:55	WG1556445
Vanadium	U		0.000986	0.00500	1	10/15/2020 04:55	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 18:01	WG1560609

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*10/16/2020 18:01*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/18/2020 04:21	WG1560896
Benzene	0.000931	B J	0.0000941	0.00100	1	10/18/2020 04:21	WG1560896
Bromodichloromethane	U		0.000136	0.00100	1	10/18/2020 04:21	WG1560896
Bromoform	U		0.000129	0.00100	1	10/18/2020 04:21	WG1560896
Bromomethane	U		0.000605	0.00500	1	10/18/2020 04:21	WG1560896
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2020 04:21	WG1560896
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2020 04:21	WG1560896
Carbon disulfide	0.000347	B J	0.0000962	0.00100	1	10/18/2020 04:21	WG1560896
Carbon tetrachloride	U		0.000128	0.00100	1	10/18/2020 04:21	WG1560896
Chlorobenzene	U		0.000116	0.00100	1	10/18/2020 04:21	WG1560896
Chlorodibromomethane	U		0.000140	0.00100	1	10/18/2020 04:21	WG1560896
Chloroethane	U		0.000192	0.00500	1	10/18/2020 04:21	WG1560896
Chloroform	U		0.000111	0.00500	1	10/18/2020 04:21	WG1560896
Chloromethane	U		0.000960	0.00250	1	10/18/2020 04:21	WG1560896
1,2-Dibromoethane	U		0.000126	0.00100	1	10/18/2020 04:21	WG1560896
1,1-Dichloroethane	U		0.000100	0.00100	1	10/18/2020 04:21	WG1560896
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/18/2020 04:21	WG1560896
1,1-Dichloroethene	U		0.000188	0.00100	1	10/18/2020 04:21	WG1560896
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/18/2020 04:21	WG1560896
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/18/2020 04:21	WG1560896
1,2-Dichloropropane	U		0.000149	0.00100	1	10/18/2020 04:21	WG1560896
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/18/2020 04:21	WG1560896
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/18/2020 04:21	WG1560896
Ethylbenzene	U		0.000137	0.00100	1	10/18/2020 04:21	WG1560896
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2020 04:21	WG1560896
p-Isopropyltoluene	U		0.000120	0.00100	1	10/18/2020 04:21	WG1560896
2-Butanone (MEK)	U		0.00119	0.0100	1	10/18/2020 04:21	WG1560896
2-Hexanone	U		0.000787	0.0100	1	10/18/2020 04:21	WG1560896
Methylene Chloride	U		0.000430	0.00500	1	10/18/2020 04:21	WG1560896
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/18/2020 04:21	WG1560896
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/18/2020 04:21	WG1560896
Naphthalene	U	J4	0.00100	0.00500	1	10/18/2020 04:21	WG1560896
n-Propylbenzene	U		0.0000993	0.00100	1	10/18/2020 04:21	WG1560896
Styrene	U		0.000118	0.00100	1	10/18/2020 04:21	WG1560896
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/18/2020 04:21	WG1560896
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/18/2020 04:21	WG1560896
Tetrachloroethene	U		0.000300	0.00100	1	10/18/2020 04:21	WG1560896
Toluene	U		0.000278	0.00100	1	10/18/2020 04:21	WG1560896
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/18/2020 04:21	WG1560896
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/18/2020 04:21	WG1560896
Trichloroethene	U		0.000190	0.00100	1	10/18/2020 04:21	WG1560896
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2020 04:21	WG1560896
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2020 04:21	WG1560896
Vinyl chloride	U		0.000234	0.00100	1	10/18/2020 04:21	WG1560896
o-Xylene	U		0.000174	0.00100	1	10/18/2020 04:21	WG1560896
m&p-Xylene	U		0.000430	0.00200	1	10/18/2020 04:21	WG1560896
Xylenes, Total	U		0.000174	0.00300	1	10/18/2020 04:21	WG1560896
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2020 04:21*	WG1560896
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/18/2020 04:21*	WG1560896
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/18/2020 04:21*	WG1560896

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0373	B J	0.0247	0.100	1	10/15/2020 09:25	WG1557911
(S) o-Terphenyl	*88.4*			*31.0-160*		*10/15/2020 09:25*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	U		2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:51	WG1559002

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 00:44	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	U	P1	0.379	1.00	1	10/15/2020 02:00	WG1557662
Fluoride	U		0.0640	0.150	1	10/15/2020 02:00	WG1557662
Sulfate	U		0.594	5.00	1	10/15/2020 02:00	WG1557662

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 10:03	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	U		0.0254	0.200	1	10/12/2020 21:57	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/15/2020 04:58	WG1556445
Barium	U		0.00778	0.0200	1	10/15/2020 04:58	WG1556445
Cadmium	U		0.000478	0.00100	1	10/15/2020 04:58	WG1556445
Calcium	U		0.480	1.00	1	10/15/2020 04:58	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 04:58	WG1556445
Cobalt	U		0.000477	0.00200	1	10/15/2020 04:58	WG1556445
Iron	U		0.0489	0.100	1	10/15/2020 04:58	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 04:58	WG1556445
Manganese	U		0.00132	0.00500	1	10/15/2020 04:58	WG1556445
Nickel	U		0.000952	0.00200	1	10/15/2020 04:58	WG1556445
Potassium	U		0.534	2.00	1	10/15/2020 04:58	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 04:58	WG1556445
Sodium	U		0.630	2.00	1	10/15/2020 04:58	WG1556445
Uranium	U		0.00754	0.0200	1	10/15/2020 04:58	WG1556445
Vanadium	U		0.000986	0.00500	1	10/15/2020 04:58	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/16/2020 18:26	WG1560609

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*10/16/2020 18:26*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 01:16	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 01:16	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 01:16	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 01:16	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 01:16	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 01:16	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 01:16	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 01:16	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 01:16	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 01:16	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 01:16	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 01:16	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 01:16	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 01:16	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 01:16	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 01:16	WG1560784
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 01:16	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 01:16	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 01:16	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 01:16	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 01:16	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 01:16	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 01:16	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 01:16	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 01:16	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 01:16	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 01:16	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 01:16	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 01:16	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 01:16	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 01:16	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 01:16	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 01:16	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 01:16	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 01:16	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 01:16	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 01:16	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 01:16	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 01:16	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 01:16	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 01:16	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 01:16	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 01:16	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 01:16	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 01:16	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 01:16	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 01:16	WG1560784
(S) Toluene-d8	*100*			*80.0-120*		*10/17/2020 01:16*	WG1560784
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/17/2020 01:16*	WG1560784
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/17/2020 01:16*	WG1560784

LB-RES1-05
Collected date/time: 10/06/20 10:35
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0392	J	0.0247	0.100	1	10/14/2020 06:31	WG1557908
(S) o-Terphenyl	*98.4*			*31.0-160*		*10/14/2020 06:31*	WG1557908

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 23:07	WG1560784
Benzene	U		0.0000941	0.00100	1	10/16/2020 23:07	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 23:07	WG1560784
Bromoform	U		0.000129	0.00100	1	10/16/2020 23:07	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/16/2020 23:07	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 23:07	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 23:07	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 23:07	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 23:07	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 23:07	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 23:07	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/16/2020 23:07	WG1560784
Chloroform	U		0.000111	0.00500	1	10/16/2020 23:07	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/16/2020 23:07	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 23:07	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 23:07	WG1560784
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 23:07	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 23:07	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 23:07	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 23:07	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 23:07	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 23:07	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 23:07	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 23:07	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 23:07	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 23:07	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 23:07	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 23:07	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 23:07	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 23:07	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 23:07	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/16/2020 23:07	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 23:07	WG1560784
Styrene	U		0.000118	0.00100	1	10/16/2020 23:07	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 23:07	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 23:07	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 23:07	WG1560784
Toluene	U		0.000278	0.00100	1	10/16/2020 23:07	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 23:07	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 23:07	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 23:07	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 23:07	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 23:07	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 23:07	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/16/2020 23:07	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 23:07	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 23:07	WG1560784
(S) Toluene-d8	*102*			*80.0-120*		*10/16/2020 23:07*	WG1560784
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/16/2020 23:07*	WG1560784
(S) 1,2-Dichloroethane-d4	*94.7*			*70.0-130*		*10/16/2020 23:07*	WG1560784

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/16/2020 23:28	WG1560784
Benzene	U		0.0000941	0.00100	1	10/16/2020 23:28	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/16/2020 23:28	WG1560784
Bromoform	U		0.000129	0.00100	1	10/16/2020 23:28	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/16/2020 23:28	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/16/2020 23:28	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/16/2020 23:28	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/16/2020 23:28	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/16/2020 23:28	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/16/2020 23:28	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/16/2020 23:28	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/16/2020 23:28	WG1560784
Chloroform	U		0.000111	0.00500	1	10/16/2020 23:28	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/16/2020 23:28	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/16/2020 23:28	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/16/2020 23:28	WG1560784
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/16/2020 23:28	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/16/2020 23:28	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/16/2020 23:28	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/16/2020 23:28	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/16/2020 23:28	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/16/2020 23:28	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/16/2020 23:28	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/16/2020 23:28	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/16/2020 23:28	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/16/2020 23:28	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/16/2020 23:28	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/16/2020 23:28	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/16/2020 23:28	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/16/2020 23:28	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/16/2020 23:28	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/16/2020 23:28	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/16/2020 23:28	WG1560784
Styrene	U		0.000118	0.00100	1	10/16/2020 23:28	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/16/2020 23:28	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/16/2020 23:28	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/16/2020 23:28	WG1560784
Toluene	U		0.000278	0.00100	1	10/16/2020 23:28	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/16/2020 23:28	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/16/2020 23:28	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/16/2020 23:28	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/16/2020 23:28	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/16/2020 23:28	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/16/2020 23:28	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/16/2020 23:28	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/16/2020 23:28	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/16/2020 23:28	WG1560784
(S) Toluene-d8	*99.1*			*80.0-120*		*10/16/2020 23:28*	WG1560784
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/16/2020 23:28*	WG1560784
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*10/16/2020 23:28*	WG1560784

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/18/2020 04:42	WG1560896
Benzene	0.000496	B J	0.0000941	0.00100	1	10/18/2020 04:42	WG1560896
Bromodichloromethane	U		0.000136	0.00100	1	10/18/2020 04:42	WG1560896
Bromoform	U		0.000129	0.00100	1	10/18/2020 04:42	WG1560896
Bromomethane	U		0.000605	0.00500	1	10/18/2020 04:42	WG1560896
n-Butylbenzene	U		0.000157	0.00100	1	10/18/2020 04:42	WG1560896
sec-Butylbenzene	U		0.000125	0.00100	1	10/18/2020 04:42	WG1560896
Carbon disulfide	0.000393	B J	0.0000962	0.00100	1	10/18/2020 04:42	WG1560896
Carbon tetrachloride	U		0.000128	0.00100	1	10/18/2020 04:42	WG1560896
Chlorobenzene	U		0.000116	0.00100	1	10/18/2020 04:42	WG1560896
Chlorodibromomethane	U		0.000140	0.00100	1	10/18/2020 04:42	WG1560896
Chloroethane	U		0.000192	0.00500	1	10/18/2020 04:42	WG1560896
Chloroform	U		0.000111	0.00500	1	10/18/2020 04:42	WG1560896
Chloromethane	U		0.000960	0.00250	1	10/18/2020 04:42	WG1560896
1,2-Dibromoethane	U		0.000126	0.00100	1	10/18/2020 04:42	WG1560896
1,1-Dichloroethane	U		0.000100	0.00100	1	10/18/2020 04:42	WG1560896
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/18/2020 04:42	WG1560896
1,1-Dichloroethene	U		0.000188	0.00100	1	10/18/2020 04:42	WG1560896
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/18/2020 04:42	WG1560896
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/18/2020 04:42	WG1560896
1,2-Dichloropropane	U		0.000149	0.00100	1	10/18/2020 04:42	WG1560896
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/18/2020 04:42	WG1560896
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/18/2020 04:42	WG1560896
Ethylbenzene	U		0.000137	0.00100	1	10/18/2020 04:42	WG1560896
Isopropylbenzene	U		0.000105	0.00100	1	10/18/2020 04:42	WG1560896
p-Isopropyltoluene	U		0.000120	0.00100	1	10/18/2020 04:42	WG1560896
2-Butanone (MEK)	U		0.00119	0.0100	1	10/18/2020 04:42	WG1560896
2-Hexanone	U		0.000787	0.0100	1	10/18/2020 04:42	WG1560896
Methylene Chloride	U		0.000430	0.00500	1	10/18/2020 04:42	WG1560896
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/18/2020 04:42	WG1560896
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/18/2020 04:42	WG1560896
Naphthalene	U	J4	0.00100	0.00500	1	10/18/2020 04:42	WG1560896
n-Propylbenzene	U		0.0000993	0.00100	1	10/18/2020 04:42	WG1560896
Styrene	U		0.000118	0.00100	1	10/18/2020 04:42	WG1560896
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/18/2020 04:42	WG1560896
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/18/2020 04:42	WG1560896
Tetrachloroethene	U		0.000300	0.00100	1	10/18/2020 04:42	WG1560896
Toluene	U		0.000278	0.00100	1	10/18/2020 04:42	WG1560896
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/18/2020 04:42	WG1560896
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/18/2020 04:42	WG1560896
Trichloroethene	U		0.000190	0.00100	1	10/18/2020 04:42	WG1560896
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/18/2020 04:42	WG1560896
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/18/2020 04:42	WG1560896
Vinyl chloride	U		0.000234	0.00100	1	10/18/2020 04:42	WG1560896
o-Xylene	U		0.000174	0.00100	1	10/18/2020 04:42	WG1560896
m&p-Xylene	U		0.000430	0.00200	1	10/18/2020 04:42	WG1560896
Xylenes, Total	U		0.000174	0.00300	1	10/18/2020 04:42	WG1560896
(S) Toluene-d8	*109*			*80.0-120*		*10/18/2020 04:42*	WG1560896
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/18/2020 04:42*	WG1560896
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/18/2020 04:42*	WG1560896

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Collected date/time: 10/06/20 00:00

SAMPLE RESULTS - 48

L1271301

ONE LAB. NATIONWIDE.

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 00:14	WG1560784
Benzene	U		0.0000941	0.00100	1	10/17/2020 00:14	WG1560784
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 00:14	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 00:14	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 00:14	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 00:14	WG1560784
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 00:14	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 00:14	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 00:14	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 00:14	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 00:14	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 00:14	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 00:14	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 00:14	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 00:14	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 00:14	WG1560784
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 00:14	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 00:14	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 00:14	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 00:14	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 00:14	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 00:14	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 00:14	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 00:14	WG1560784
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 00:14	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 00:14	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 00:14	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 00:14	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 00:14	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 00:14	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 00:14	WG1560784
Naphthalene	U		0.00100	0.00500	1	10/17/2020 00:14	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 00:14	WG1560784
Styrene	U		0.000118	0.00100	1	10/17/2020 00:14	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 00:14	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 00:14	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 00:14	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 00:14	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 00:14	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 00:14	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 00:14	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 00:14	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 00:14	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 00:14	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 00:14	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 00:14	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 00:14	WG1560784
(S) Toluene-d8	*99.2*			*80.0-120*		*10/17/2020 00:14*	WG1560784
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 00:14*	WG1560784
(S) 1,2-Dichloroethane-d4	*99.1*			*70.0-130*		*10/17/2020 00:14*	WG1560784

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	2150		3.75	13.3	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:53	WG1559002

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.0180	0.0500	10	10/16/2020 00:45	WG1559474

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	550		3.79	10.0	10	10/15/2020 03:12	WG1557662
Fluoride	1.09		0.0640	0.150	1	10/15/2020 02:54	WG1557662
Sulfate	102		5.94	50.0	10	10/15/2020 03:12	WG1557662

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/13/2020 10:05	WG1556621

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.770		0.0254	0.200	1	10/12/2020 22:00	WG1556429

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00541		0.000735	0.00200	1	10/15/2020 05:01	WG1556445
Barium	0.801		0.00778	0.0200	1	10/15/2020 05:01	WG1556445
Cadmium	U		0.000478	0.00100	1	10/15/2020 05:01	WG1556445
Calcium	141		0.480	1.00	1	10/15/2020 05:01	WG1556445
Chromium	0.00150	J	0.00149	0.00200	1	10/15/2020 05:01	WG1556445
Cobalt	U		0.000477	0.00200	1	10/15/2020 05:01	WG1556445
Iron	0.106		0.0489	0.100	1	10/15/2020 05:01	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 05:01	WG1556445
Manganese	0.252		0.00132	0.00500	1	10/15/2020 05:01	WG1556445
Nickel	0.00410		0.000952	0.00200	1	10/15/2020 05:01	WG1556445
Potassium	0.896	J	0.534	2.00	1	10/15/2020 05:01	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 05:01	WG1556445
Sodium	350		0.630	2.00	1	10/15/2020 05:01	WG1556445
Uranium	U		0.00754	0.0200	1	10/15/2020 05:01	WG1556445
Vanadium	0.00249	J	0.000986	0.00500	1	10/15/2020 05:01	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	34.2		0.628	2.00	20	10/16/2020 22:13	WG1560609

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*10/16/2020 22:13*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.565	2.50	50	10/17/2020 05:02	WG1560784
Benzene	9.06		0.0471	0.500	500	10/18/2020 11:55	WG1561142
Bromodichloromethane	U		0.00680	0.0500	50	10/17/2020 05:02	WG1560784
Bromoform	U		0.00645	0.0500	50	10/17/2020 05:02	WG1560784
Bromomethane	U		0.0303	0.250	50	10/17/2020 05:02	WG1560784
n-Butylbenzene	U		0.00785	0.0500	50	10/17/2020 05:02	WG1560784
sec-Butylbenzene	U		0.00625	0.0500	50	10/17/2020 05:02	WG1560784
Carbon disulfide	U		0.00481	0.0500	50	10/17/2020 05:02	WG1560784
Carbon tetrachloride	U		0.00640	0.0500	50	10/17/2020 05:02	WG1560784
Chlorobenzene	U		0.00580	0.0500	50	10/17/2020 05:02	WG1560784
Chlorodibromomethane	U		0.00700	0.0500	50	10/17/2020 05:02	WG1560784
Chloroethane	U		0.00960	0.250	50	10/17/2020 05:02	WG1560784
Chloroform	U		0.00555	0.250	50	10/17/2020 05:02	WG1560784
Chloromethane	U		0.0480	0.125	50	10/17/2020 05:02	WG1560784
1,2-Dibromoethane	U		0.00630	0.0500	50	10/17/2020 05:02	WG1560784
1,1-Dichloroethane	U		0.00500	0.0500	50	10/17/2020 05:02	WG1560784
1,2-Dichloroethane	U		0.00409	0.0500	50	10/17/2020 05:02	WG1560784
1,1-Dichloroethene	U		0.00940	0.0500	50	10/17/2020 05:02	WG1560784
cis-1,2-Dichloroethene	U		0.00630	0.0500	50	10/17/2020 05:02	WG1560784
trans-1,2-Dichloroethene	U		0.00745	0.0500	50	10/17/2020 05:02	WG1560784
1,2-Dichloropropane	U		0.00745	0.0500	50	10/17/2020 05:02	WG1560784
cis-1,3-Dichloropropene	U		0.00555	0.0500	50	10/17/2020 05:02	WG1560784
trans-1,3-Dichloropropene	U		0.00590	0.0500	50	10/17/2020 05:02	WG1560784
Ethylbenzene	0.136		0.00685	0.0500	50	10/17/2020 05:02	WG1560784
Isopropylbenzene	0.0453	J	0.00525	0.0500	50	10/17/2020 05:02	WG1560784
p-Isopropyltoluene	U		0.00600	0.0500	50	10/17/2020 05:02	WG1560784
2-Butanone (MEK)	U		0.0595	0.500	50	10/17/2020 05:02	WG1560784
2-Hexanone	U		0.0394	0.500	50	10/17/2020 05:02	WG1560784
Methylene Chloride	U		0.0215	0.250	50	10/17/2020 05:02	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.0239	0.500	50	10/17/2020 05:02	WG1560784
Methyl tert-butyl ether	0.0481	J	0.00505	0.0500	50	10/17/2020 05:02	WG1560784
Naphthalene	0.105	J	0.0500	0.250	50	10/17/2020 05:02	WG1560784
n-Propylbenzene	0.0559		0.00497	0.0500	50	10/17/2020 05:02	WG1560784
Styrene	U		0.00590	0.0500	50	10/17/2020 05:02	WG1560784
1,1,1,2-Tetrachloroethane	U		0.00735	0.0500	50	10/17/2020 05:02	WG1560784
1,1,2,2-Tetrachloroethane	U		0.00665	0.0500	50	10/17/2020 05:02	WG1560784
Tetrachloroethene	U		0.0150	0.0500	50	10/17/2020 05:02	WG1560784
Toluene	0.0676		0.0139	0.0500	50	10/17/2020 05:02	WG1560784
1,1,1-Trichloroethane	U		0.00745	0.0500	50	10/17/2020 05:02	WG1560784
1,1,2-Trichloroethane	U		0.00790	0.0500	50	10/17/2020 05:02	WG1560784
Trichloroethene	U	J4	0.00950	0.0500	50	10/17/2020 05:02	WG1560784
1,2,4-Trimethylbenzene	0.302		0.0161	0.0500	50	10/17/2020 05:02	WG1560784
1,3,5-Trimethylbenzene	U		0.00520	0.0500	50	10/17/2020 05:02	WG1560784
Vinyl chloride	U		0.0117	0.0500	50	10/17/2020 05:02	WG1560784
o-Xylene	0.0510		0.00870	0.0500	50	10/17/2020 05:02	WG1560784
m&p-Xylene	0.852		0.0215	0.100	50	10/17/2020 05:02	WG1560784
Xylenes, Total	0.903		0.00870	0.150	50	10/17/2020 05:02	WG1560784
(S) Toluene-d8	*96.3*			*80.0-120*		*10/17/2020 05:02*	WG1560784
(S) Toluene-d8	*116*			*80.0-120*		*10/18/2020 11:55*	WG1561142
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/17/2020 05:02*	WG1560784

MW-43
Collected date/time: 10/06/20 15:10
L1271301

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/18/2020 11:55*	WG1561142
(S) 1,2-Dichloroethane-d4	*91.1*			*70.0-130*		*10/17/2020 05:02*	WG1560784
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/18/2020 11:55*	WG1561142

Sample Narrative:

L1271301-49 WG1560784: Target and Non-target compounds too high to run at a lower dilution.

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.74		0.0247	0.100	1	10/14/2020 15:49	WG1557908
(S) o-Terphenyl	*116*			*31.0-160*		*10/14/2020 15:49*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2240		2.82	10.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:54	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	311		3.79	10.0	10	10/15/2020 03:47	WG1557662
Fluoride	0.806		0.0640	0.150	1	10/15/2020 03:30	WG1557662
Sulfate	571		5.94	50.0	10	10/15/2020 03:47	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0788		0.000735	0.00200	1	10/15/2020 05:05	WG1556445
Barium	0.129		0.00778	0.0200	1	10/15/2020 05:05	WG1556445
Calcium	304		0.480	1.00	1	10/15/2020 05:05	WG1556445
Chromium	0.00169	J	0.00149	0.00200	1	10/15/2020 05:05	WG1556445
Iron	2.90		0.0489	0.100	1	10/15/2020 05:05	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 05:05	WG1556445
Manganese	1.09		0.00132	0.00500	1	10/15/2020 05:05	WG1556445
Potassium	3.38		0.534	2.00	1	10/15/2020 05:05	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 05:05	WG1556445
Sodium	152		0.630	2.00	1	10/15/2020 05:05	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	7.74		0.0314	0.100	1	10/16/2020 20:57	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*89.6*			*78.0-120*		*10/16/2020 20:57*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 02:58	WG1560784
Benzene	1.92		0.00471	0.0500	50	10/18/2020 11:32	WG1561142
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 02:58	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 02:58	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 02:58	WG1560784
n-Butylbenzene	0.00319		0.000157	0.00100	1	10/17/2020 02:58	WG1560784
sec-Butylbenzene	0.0194		0.000125	0.00100	1	10/17/2020 02:58	WG1560784
Carbon disulfide	0.00126		0.0000962	0.00100	1	10/17/2020 02:58	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 02:58	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 02:58	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 02:58	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 02:58	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 02:58	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 02:58	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 02:58	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 02:58	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 02:58	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 02:58	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 02:58	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 02:58	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 02:58	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 02:58	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 02:58	WG1560784
Ethylbenzene	0.0302		0.000137	0.00100	1	10/17/2020 02:58	WG1560784
Isopropylbenzene	0.162		0.000105	0.00100	1	10/17/2020 02:58	WG1560784
p-Isopropyltoluene	0.00274		0.000120	0.00100	1	10/17/2020 02:58	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 02:58	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 02:58	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 02:58	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 02:58	WG1560784
Methyl tert-butyl ether	0.0107		0.000101	0.00100	1	10/17/2020 02:58	WG1560784
Naphthalene	0.0790		0.00100	0.00500	1	10/17/2020 02:58	WG1560784
n-Propylbenzene	0.160		0.00497	0.0500	50	10/18/2020 11:32	WG1561142
Styrene	U		0.000118	0.00100	1	10/17/2020 02:58	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 02:58	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 02:58	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 02:58	WG1560784
Toluene	0.000571	J	0.000278	0.00100	1	10/17/2020 02:58	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 02:58	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 02:58	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 02:58	WG1560784
1,2,4-Trimethylbenzene	0.0775		0.000322	0.00100	1	10/17/2020 02:58	WG1560784
1,3,5-Trimethylbenzene	0.0117		0.000104	0.00100	1	10/17/2020 02:58	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 02:58	WG1560784
o-Xylene	0.00103		0.000174	0.00100	1	10/17/2020 02:58	WG1560784
m&p-Xylene	0.136		0.000430	0.00200	1	10/17/2020 02:58	WG1560784
Xylenes, Total	0.137		0.000174	0.00300	1	10/17/2020 02:58	WG1560784
(S) Toluene-d8	*97.6*			*80.0-120*		*10/17/2020 02:58*	WG1560784
(S) Toluene-d8	*116*			*80.0-120*		*10/18/2020 11:32*	WG1561142
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/17/2020 02:58*	WG1560784
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/18/2020 11:32*	WG1561142
(S) 1,2-Dichloroethane-d4	*87.5*			*70.0-130*		*10/17/2020 02:58*	WG1560784
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*10/18/2020 11:32*	WG1561142

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	11.4		0.247	1.00	10	10/14/2020 19:38	WG1557908
(S) o-Terphenyl	*324*	J1		*31.0-160*		*10/14/2020 19:38*	WG1557908

Sample Narrative:

L1271301-50 WG1557908: Surrogate failure due to matrix interference

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3690		5.64	20.0	1	10/13/2020 17:56	WG1558063

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/15/2020 21:56	WG1559002

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	186		37.9	100	100	10/15/2020 04:23	WG1557662
Fluoride	0.533		0.0640	0.150	1	10/15/2020 04:05	WG1557662
Sulfate	1510		59.4	500	100	10/15/2020 04:23	WG1557662

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00744		0.000735	0.00200	1	10/15/2020 05:08	WG1556445
Barium	0.0321		0.00778	0.0200	1	10/15/2020 05:08	WG1556445
Calcium	373		0.480	1.00	1	10/15/2020 05:08	WG1556445
Chromium	U		0.00149	0.00200	1	10/15/2020 05:08	WG1556445
Iron	0.608		0.0489	0.100	1	10/15/2020 05:08	WG1556445
Lead	U		0.00249	0.00500	1	10/15/2020 05:08	WG1556445
Manganese	1.89		0.00132	0.00500	1	10/15/2020 05:08	WG1556445
Potassium	0.560	J	0.534	2.00	1	10/15/2020 05:08	WG1556445
Selenium	U		0.000657	0.00200	1	10/15/2020 05:08	WG1556445
Sodium	286		0.630	2.00	1	10/15/2020 05:08	WG1556445

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.490		0.0314	0.100	1	10/16/2020 21:23	WG1560609
(S) a,a,a-Trifluorotoluene(FID)	*106*			*78.0-120*		*10/16/2020 21:23*	WG1560609

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 03:18	WG1560784
Benzene	0.000206	J	0.0000941	0.00100	1	10/18/2020 10:45	WG1561142
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 03:18	WG1560784
Bromoform	U		0.000129	0.00100	1	10/17/2020 03:18	WG1560784
Bromomethane	U		0.000605	0.00500	1	10/17/2020 03:18	WG1560784
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 03:18	WG1560784
sec-Butylbenzene	0.00597		0.000125	0.00100	1	10/17/2020 03:18	WG1560784
Carbon disulfide	U		0.0000962	0.00100	1	10/17/2020 03:18	WG1560784
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 03:18	WG1560784
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 03:18	WG1560784
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 03:18	WG1560784
Chloroethane	U		0.000192	0.00500	1	10/17/2020 03:18	WG1560784
Chloroform	U		0.000111	0.00500	1	10/17/2020 03:18	WG1560784
Chloromethane	U		0.000960	0.00250	1	10/17/2020 03:18	WG1560784
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 03:18	WG1560784
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 03:18	WG1560784

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 03:18	WG1560784
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 03:18	WG1560784
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 03:18	WG1560784
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 03:18	WG1560784
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 03:18	WG1560784
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 03:18	WG1560784
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 03:18	WG1560784
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 03:18	WG1560784
Isopropylbenzene	0.00832		0.000105	0.00100	1	10/17/2020 03:18	WG1560784
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 03:18	WG1560784
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 03:18	WG1560784
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 03:18	WG1560784
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 03:18	WG1560784
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 03:18	WG1560784
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 03:18	WG1560784
Naphthalene	0.00410	J	0.00100	0.00500	1	10/17/2020 03:18	WG1560784
n-Propylbenzene	U		0.0000993	0.00100	1	10/18/2020 10:45	WG1561142
Styrene	U		0.000118	0.00100	1	10/17/2020 03:18	WG1560784
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 03:18	WG1560784
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 03:18	WG1560784
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 03:18	WG1560784
Toluene	U		0.000278	0.00100	1	10/17/2020 03:18	WG1560784
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 03:18	WG1560784
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 03:18	WG1560784
Trichloroethene	U	J4	0.000190	0.00100	1	10/17/2020 03:18	WG1560784
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 03:18	WG1560784
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 03:18	WG1560784
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 03:18	WG1560784
o-Xylene	U		0.000174	0.00100	1	10/17/2020 03:18	WG1560784
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 03:18	WG1560784
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 03:18	WG1560784
(S) Toluene-d8	*90.7*			*80.0-120*		*10/17/2020 03:18*	WG1560784
(S) Toluene-d8	*101*			*80.0-120*		*10/18/2020 10:45*	WG1561142
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/17/2020 03:18*	WG1560784
(S) 4-Bromofluorobenzene	*99.3*			*77.0-126*		*10/18/2020 10:45*	WG1561142
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*10/17/2020 03:18*	WG1560784
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/18/2020 10:45*	WG1561142

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.30		0.0247	0.100	1	10/14/2020 18:22	WG1557908
(S) o-Terphenyl	*106*			*31.0-160*		*10/14/2020 18:22*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2200		2.82	10.0	1	10/14/2020 22:24	WG1558087

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.199		0.0500	0.100	1	10/21/2020 18:00	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	177		7.58	20.0	20	10/13/2020 19:50	WG1558271
Fluoride	0.527		0.0640	0.150	1	10/13/2020 19:29	WG1558271
Sulfate	773		11.9	100	20	10/13/2020 19:50	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/12/2020 23:48	WG1557632
Barium	0.0438		0.00778	0.0200	1	10/12/2020 23:48	WG1557632
Calcium	274		0.480	1.00	1	10/12/2020 23:48	WG1557632
Chromium	U		0.00149	0.00200	1	10/12/2020 23:48	WG1557632
Iron	0.253		0.0489	0.100	1	10/12/2020 23:48	WG1557632
Lead	U		0.00249	0.00500	1	10/12/2020 23:48	WG1557632
Manganese	1.08		0.00132	0.00500	1	10/12/2020 23:48	WG1557632
Potassium	U		0.534	2.00	1	10/12/2020 23:48	WG1557632
Selenium	U		0.000657	0.00200	1	10/12/2020 23:48	WG1557632
Sodium	158		0.630	2.00	1	10/12/2020 23:48	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.18		0.0314	0.100	1	10/17/2020 11:08	WG1560698
(S) a,a,a-Trifluorotoluene(FID)	*95.6*			*78.0-120*		*10/17/2020 11:08*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0565	0.250	5	10/17/2020 22:36	WG1560897
Benzene	0.368		0.000471	0.00500	5	10/17/2020 22:36	WG1560897
Bromodichloromethane	U		0.000680	0.00500	5	10/17/2020 22:36	WG1560897
Bromoform	U		0.000645	0.00500	5	10/17/2020 22:36	WG1560897
Bromomethane	U		0.00303	0.0250	5	10/17/2020 22:36	WG1560897
n-Butylbenzene	0.000994	J	0.000785	0.00500	5	10/17/2020 22:36	WG1560897
sec-Butylbenzene	0.00271	J	0.000625	0.00500	5	10/17/2020 22:36	WG1560897
Carbon disulfide	0.00185	B J	0.000481	0.00500	5	10/17/2020 22:36	WG1560897
Carbon tetrachloride	U		0.000640	0.00500	5	10/17/2020 22:36	WG1560897
Chlorobenzene	U		0.000580	0.00500	5	10/17/2020 22:36	WG1560897
Chlorodibromomethane	U		0.000700	0.00500	5	10/17/2020 22:36	WG1560897
Chloroethane	U		0.000960	0.0250	5	10/17/2020 22:36	WG1560897
Chloroform	U		0.000555	0.0250	5	10/17/2020 22:36	WG1560897
Chloromethane	U		0.00480	0.0125	5	10/17/2020 22:36	WG1560897
1,2-Dibromoethane	U		0.000630	0.00500	5	10/17/2020 22:36	WG1560897
1,1-Dichloroethane	U		0.000500	0.00500	5	10/17/2020 22:36	WG1560897

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.000409	0.00500	5	10/17/2020 22:36	WG1560897
1,1-Dichloroethene	U		0.000940	0.00500	5	10/17/2020 22:36	WG1560897
cis-1,2-Dichloroethene	U		0.000630	0.00500	5	10/17/2020 22:36	WG1560897
trans-1,2-Dichloroethene	U		0.000745	0.00500	5	10/17/2020 22:36	WG1560897
1,2-Dichloropropane	U		0.000745	0.00500	5	10/17/2020 22:36	WG1560897
cis-1,3-Dichloropropene	U		0.000555	0.00500	5	10/17/2020 22:36	WG1560897
trans-1,3-Dichloropropene	U		0.000590	0.00500	5	10/17/2020 22:36	WG1560897
Ethylbenzene	0.129		0.000685	0.00500	5	10/17/2020 22:36	WG1560897
Isopropylbenzene	0.0208		0.000525	0.00500	5	10/17/2020 22:36	WG1560897
p-Isopropyltoluene	0.00147	J	0.000600	0.00500	5	10/17/2020 22:36	WG1560897
2-Butanone (MEK)	U		0.00595	0.0500	5	10/17/2020 22:36	WG1560897
2-Hexanone	U		0.00394	0.0500	5	10/17/2020 22:36	WG1560897
Methylene Chloride	U		0.00215	0.0250	5	10/17/2020 22:36	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.00239	0.0500	5	10/17/2020 22:36	WG1560897
Methyl tert-butyl ether	0.0117		0.000505	0.00500	5	10/17/2020 22:36	WG1560897
Naphthalene	0.0101	J	0.00500	0.0250	5	10/17/2020 22:36	WG1560897
n-Propylbenzene	0.0265		0.000497	0.00500	5	10/17/2020 22:36	WG1560897
Styrene	U		0.000590	0.00500	5	10/17/2020 22:36	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000735	0.00500	5	10/17/2020 22:36	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000665	0.00500	5	10/17/2020 22:36	WG1560897
Tetrachloroethene	U		0.00150	0.00500	5	10/17/2020 22:36	WG1560897
Toluene	0.00446	J	0.00139	0.00500	5	10/17/2020 22:36	WG1560897
1,1,1-Trichloroethane	U		0.000745	0.00500	5	10/17/2020 22:36	WG1560897
1,1,2-Trichloroethane	U		0.000790	0.00500	5	10/17/2020 22:36	WG1560897
Trichloroethene	U		0.000950	0.00500	5	10/17/2020 22:36	WG1560897
1,2,4-Trimethylbenzene	0.102		0.00161	0.00500	5	10/17/2020 22:36	WG1560897
1,3,5-Trimethylbenzene	0.00118	J	0.000520	0.00500	5	10/17/2020 22:36	WG1560897
Vinyl chloride	U		0.00117	0.00500	5	10/17/2020 22:36	WG1560897
o-Xylene	U		0.000870	0.00500	5	10/17/2020 22:36	WG1560897
m&p-Xylene	0.154		0.00215	0.0100	5	10/17/2020 22:36	WG1560897
Xylenes, Total	0.154		0.000870	0.0150	5	10/17/2020 22:36	WG1560897
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 22:36*	WG1560897
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 22:36*	WG1560897
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*10/17/2020 22:36*	WG1560897

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.784		0.0247	0.100	1	10/15/2020 09:45	WG1557911
(S) o-Terphenyl	*110*			*31.0-160*		*10/15/2020 09:45*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	4440		5.64	20.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	U		1.00	2.00	20	10/21/2020 18:01	WG1560789

Sample Narrative:

L1271301-53 WG1560789: dilution due to sulfide interference

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U		0.0180	0.0500	10	10/16/2020 03:47	WG1559964

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	398		37.9	100	100	10/13/2020 20:12	WG1558271
Fluoride	0.694		0.0640	0.150	1	10/13/2020 20:45	WG1558271
Sulfate	1660		59.4	500	100	10/13/2020 20:12	WG1558271

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/13/2020 08:48	WG1557453

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.661		0.0254	0.200	1	10/13/2020 14:28	WG1557841

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00348		0.000735	0.00200	1	10/12/2020 23:51	WG1557632
Barium	0.0706		0.00778	0.0200	1	10/12/2020 23:51	WG1557632
Cadmium	U		0.000478	0.00100	1	10/12/2020 23:51	WG1557632
Calcium	301		0.480	1.00	1	10/12/2020 23:51	WG1557632
Chromium	0.00626		0.00149	0.00200	1	10/12/2020 23:51	WG1557632
Cobalt	0.000490	J	0.000477	0.00200	1	10/12/2020 23:51	WG1557632
Iron	1.32		0.0489	0.100	1	10/12/2020 23:51	WG1557632
Lead	0.00678		0.00249	0.00500	1	10/12/2020 23:51	WG1557632
Manganese	0.0432		0.00132	0.00500	1	10/12/2020 23:51	WG1557632
Nickel	0.00306		0.000952	0.00200	1	10/12/2020 23:51	WG1557632
Potassium	U		0.534	2.00	1	10/12/2020 23:51	WG1557632
Selenium	U		0.000657	0.00200	1	10/12/2020 23:51	WG1557632
Sodium	546		0.630	2.00	1	10/12/2020 23:51	WG1557632
Uranium	U		0.00754	0.0200	1	10/12/2020 23:51	WG1557632
Vanadium	0.00115	J	0.000986	0.00500	1	10/12/2020 23:51	WG1557632

KWD-8
Collected date/time: 10/06/20 12:50
L1271301

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		2.26	10.0	200	10/17/2020 22:56	WG1560897
Benzene	17.8		0.0188	0.200	200	10/17/2020 22:56	WG1560897
Bromodichloromethane	U		0.0272	0.200	200	10/17/2020 22:56	WG1560897
Bromoform	U		0.0258	0.200	200	10/17/2020 22:56	WG1560897
Bromomethane	U		0.121	1.00	200	10/17/2020 22:56	WG1560897
n-Butylbenzene	U		0.0314	0.200	200	10/17/2020 22:56	WG1560897
sec-Butylbenzene	U		0.0250	0.200	200	10/17/2020 22:56	WG1560897
Carbon disulfide	0.0664	B J	0.0192	0.200	200	10/17/2020 22:56	WG1560897
Carbon tetrachloride	U		0.0256	0.200	200	10/17/2020 22:56	WG1560897
Chlorobenzene	U		0.0232	0.200	200	10/17/2020 22:56	WG1560897
Chlorodibromomethane	U		0.0280	0.200	200	10/17/2020 22:56	WG1560897
Chloroethane	U		0.0384	1.00	200	10/17/2020 22:56	WG1560897
Chloroform	U		0.0222	1.00	200	10/17/2020 22:56	WG1560897
Chloromethane	U		0.192	0.500	200	10/17/2020 22:56	WG1560897
1,2-Dibromoethane	U		0.0252	0.200	200	10/17/2020 22:56	WG1560897
1,1-Dichloroethane	U		0.0200	0.200	200	10/17/2020 22:56	WG1560897
1,2-Dichloroethane	U		0.0164	0.200	200	10/17/2020 22:56	WG1560897
1,1-Dichloroethene	U		0.0376	0.200	200	10/17/2020 22:56	WG1560897
cis-1,2-Dichloroethene	U		0.0252	0.200	200	10/17/2020 22:56	WG1560897
trans-1,2-Dichloroethene	U		0.0298	0.200	200	10/17/2020 22:56	WG1560897
1,2-Dichloropropane	U		0.0298	0.200	200	10/17/2020 22:56	WG1560897
cis-1,3-Dichloropropene	U		0.0222	0.200	200	10/17/2020 22:56	WG1560897
trans-1,3-Dichloropropene	U		0.0236	0.200	200	10/17/2020 22:56	WG1560897
Ethylbenzene	2.89		0.0274	0.200	200	10/17/2020 22:56	WG1560897
Isopropylbenzene	0.0937	J	0.0210	0.200	200	10/17/2020 22:56	WG1560897
p-Isopropyltoluene	U		0.0240	0.200	200	10/17/2020 22:56	WG1560897
2-Butanone (MEK)	U		0.238	2.00	200	10/17/2020 22:56	WG1560897
2-Hexanone	U		0.157	2.00	200	10/17/2020 22:56	WG1560897
Methylene Chloride	U		0.0860	1.00	200	10/17/2020 22:56	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.0956	2.00	200	10/17/2020 22:56	WG1560897
Methyl tert-butyl ether	0.0230	J	0.0202	0.200	200	10/17/2020 22:56	WG1560897
Naphthalene	0.539	J	0.200	1.00	200	10/17/2020 22:56	WG1560897
n-Propylbenzene	0.168	J	0.0199	0.200	200	10/17/2020 22:56	WG1560897
Styrene	U		0.0236	0.200	200	10/17/2020 22:56	WG1560897
1,1,1,2-Tetrachloroethane	U		0.0294	0.200	200	10/17/2020 22:56	WG1560897
1,1,2,2-Tetrachloroethane	U		0.0266	0.200	200	10/17/2020 22:56	WG1560897
Tetrachloroethene	U		0.0600	0.200	200	10/17/2020 22:56	WG1560897
Toluene	1.08		0.0556	0.200	200	10/17/2020 22:56	WG1560897
1,1,1-Trichloroethane	U		0.0298	0.200	200	10/17/2020 22:56	WG1560897
1,1,2-Trichloroethane	U		0.0316	0.200	200	10/17/2020 22:56	WG1560897
Trichloroethene	U		0.0380	0.200	200	10/17/2020 22:56	WG1560897
1,2,4-Trimethylbenzene	0.833		0.0644	0.200	200	10/17/2020 22:56	WG1560897
1,3,5-Trimethylbenzene	0.191	J	0.0208	0.200	200	10/17/2020 22:56	WG1560897
Vinyl chloride	U		0.0468	0.200	200	10/17/2020 22:56	WG1560897
o-Xylene	0.139	J	0.0348	0.200	200	10/17/2020 22:56	WG1560897
m&p-Xylene	4.05		0.0860	0.400	200	10/17/2020 22:56	WG1560897
Xylenes, Total	4.19		0.0348	0.600	200	10/17/2020 22:56	WG1560897
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 22:56*	WG1560897
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 22:56*	WG1560897
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/17/2020 22:56*	WG1560897

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	6.80		0.0247	0.100	1	10/14/2020 17:31	WG1557908
(S) o-Terphenyl	*115*			*31.0-160*		*10/14/2020 17:31*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2200		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.18		0.0500	0.100	1	10/21/2020 18:03	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	104		7.58	20.0	20	10/13/2020 21:06	WG1558271
Fluoride	0.358		0.0640	0.150	1	10/13/2020 20:56	WG1558271
Sulfate	1080		11.9	100	20	10/13/2020 21:06	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	356		0.480	1.00	1	10/16/2020 20:49	WG1559507
Potassium	2.36		0.534	2.00	1	10/16/2020 20:49	WG1559507
Sodium	87.6		0.630	2.00	1	10/16/2020 20:49	WG1559507

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 18:28	WG1560897
Benzene	U	Q	0.0000941	0.00100	1	11/06/2020 17:03	WG1572494
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 18:28	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 18:28	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 18:28	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 18:28	WG1560897
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 18:28	WG1560897
Carbon disulfide	0.000185	B J	0.0000962	0.00100	1	10/17/2020 18:28	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 18:28	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 18:28	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 18:28	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 18:28	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 18:28	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 18:28	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 18:28	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 18:28	WG1560897
1,2-Dichloroethane	0.000877	J	0.0000819	0.00100	1	10/17/2020 18:28	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 18:28	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 18:28	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 18:28	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 18:28	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 18:28	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 18:28	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 18:28	WG1560897
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 18:28	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 18:28	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 18:28	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 18:28	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 18:28	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 18:28	WG1560897

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Methyl tert-butyl ether	0.00654		0.000101	0.00100	1	10/17/2020 18:28	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 18:28	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 18:28	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 18:28	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 18:28	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 18:28	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 18:28	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 18:28	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 18:28	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 18:28	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 18:28	WG1560897
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 18:28	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 18:28	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 18:28	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 18:28	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 18:28	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 18:28	WG1560897
(S) Toluene-d8	*107*			*80.0-120*		*10/17/2020 18:28*	WG1560897
(S) Toluene-d8	*105*			*80.0-120*		*11/06/2020 17:03*	WG1572494
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*10/17/2020 18:28*	WG1560897
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*11/06/2020 17:03*	WG1572494
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/17/2020 18:28*	WG1560897
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*11/06/2020 17:03*	WG1572494

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2340		2.82	10.0	1	10/13/2020 21:36	WG1558091

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.842	J6	0.0500	0.100	1	10/21/2020 18:05	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	123		7.58	20.0	20	10/13/2020 21:39	WG1558271
Fluoride	0.348		0.0640	0.150	1	10/13/2020 21:28	WG1558271
Sulfate	1250		11.9	100	20	10/13/2020 21:39	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Calcium	382		0.480	1.00	1	10/16/2020 20:52	WG1559507
Potassium	2.36		0.534	2.00	1	10/16/2020 20:52	WG1559507
Sodium	98.7		0.630	2.00	1	10/16/2020 20:52	WG1559507

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 18:49	WG1560897
Benzene	U	Q	0.0000941	0.00100	1	11/06/2020 17:23	WG1572494
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 18:49	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 18:49	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 18:49	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 18:49	WG1560897
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 18:49	WG1560897
Carbon disulfide	0.000179	B J	0.0000962	0.00100	1	10/17/2020 18:49	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 18:49	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 18:49	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 18:49	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 18:49	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 18:49	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 18:49	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 18:49	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 18:49	WG1560897
1,2-Dichloroethane	0.000876	J	0.0000819	0.00100	1	10/17/2020 18:49	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 18:49	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 18:49	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 18:49	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 18:49	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 18:49	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 18:49	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 18:49	WG1560897
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 18:49	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 18:49	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 18:49	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 18:49	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 18:49	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 18:49	WG1560897

Received by OCD: 6/23/2021 4:05:29 PM

RA-1130
Collected date/time: 10/06/20 13:30
L1271301

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Methyl tert-butyl ether	0.00798		0.000101	0.00100	1	10/17/2020 18:49	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 18:49	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 18:49	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 18:49	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 18:49	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 18:49	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 18:49	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 18:49	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 18:49	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 18:49	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 18:49	WG1560897
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 18:49	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 18:49	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 18:49	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 18:49	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 18:49	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 18:49	WG1560897
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 18:49*	WG1560897
(S) Toluene-d8	*106*			*80.0-120*		*11/06/2020 17:23*	WG1572494
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/17/2020 18:49*	WG1560897
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*11/06/2020 17:23*	WG1572494
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/17/2020 18:49*	WG1560897
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*11/06/2020 17:23*	WG1572494

Released to Imaging: 11/21/2023 10:16:55 AM

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Dissolved Solids	3180		5.64	20.0	1	10/13/2020 23:02	WG1558083

Wet Chemistry by Method 353.2

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Nitrate-Nitrite	0.0590	J	0.0500	0.100	1	10/21/2020 18:12	WG1560789

Wet Chemistry by Method 4500CN E-2011

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Cyanide	U	J6	0.00180	0.00500	1	10/16/2020 03:48	WG1559964

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Chloride	330		7.58	20.0	20	10/13/2020 22:01	WG1558271
Fluoride	0.794		0.0640	0.150	1	10/13/2020 21:50	WG1558271
Sulfate	1260		11.9	100	20	10/13/2020 22:01	WG1558271

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.000100	0.000200	1	10/13/2020 08:50	WG1557453

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Boron	0.439		0.0254	0.200	1	10/13/2020 14:36	WG1557841

Metals (ICPMS) by Method 6020

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	U		0.00368	0.0100	5	10/13/2020 00:19	WG1557632
Barium	0.0528	J	0.0389	0.100	5	10/13/2020 00:19	WG1557632
Cadmium	U		0.00239	0.00500	5	10/13/2020 00:19	WG1557632
Calcium	371		2.40	5.00	5	10/13/2020 00:19	WG1557632
Chromium	U		0.00745	0.0100	5	10/13/2020 00:19	WG1557632
Cobalt	U		0.00238	0.0100	5	10/13/2020 00:19	WG1557632
Iron	U		0.244	0.500	5	10/13/2020 00:19	WG1557632
Lead	U		0.0124	0.0250	5	10/13/2020 00:19	WG1557632
Manganese	2.15		0.00660	0.0250	5	10/13/2020 00:19	WG1557632
Nickel	U		0.00476	0.0100	5	10/13/2020 00:19	WG1557632
Potassium	U		2.67	10.0	5	10/13/2020 00:19	WG1557632
Selenium	U		0.00328	0.0100	5	10/13/2020 00:19	WG1557632
Sodium	263		3.15	10.0	5	10/13/2020 00:19	WG1557632
Uranium	U		0.0377	0.100	5	10/13/2020 00:19	WG1557632
Vanadium	U		0.00493	0.0250	5	10/13/2020 00:19	WG1557632

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 19:09	WG1560897
Benzene	0.00789		0.0000941	0.00100	1	10/17/2020 19:09	WG1560897
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 19:09	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 19:09	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 19:09	WG1560897
n-Butylbenzene	0.000270	J	0.000157	0.00100	1	10/17/2020 19:09	WG1560897
sec-Butylbenzene	0.00555		0.000125	0.00100	1	10/17/2020 19:09	WG1560897
Carbon disulfide	0.000319	B J	0.0000962	0.00100	1	10/17/2020 19:09	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 19:09	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 19:09	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 19:09	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 19:09	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 19:09	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 19:09	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 19:09	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 19:09	WG1560897
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 19:09	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 19:09	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 19:09	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 19:09	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 19:09	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 19:09	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 19:09	WG1560897
Ethylbenzene	0.00262		0.000137	0.00100	1	10/17/2020 19:09	WG1560897
Isopropylbenzene	0.0188		0.000105	0.00100	1	10/17/2020 19:09	WG1560897
p-Isopropyltoluene	0.000201	J	0.000120	0.00100	1	10/17/2020 19:09	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 19:09	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 19:09	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 19:09	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 19:09	WG1560897
Methyl tert-butyl ether	0.00365		0.000101	0.00100	1	10/17/2020 19:09	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 19:09	WG1560897
n-Propylbenzene	0.0140		0.0000993	0.00100	1	10/17/2020 19:09	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 19:09	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 19:09	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 19:09	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 19:09	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 19:09	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 19:09	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 19:09	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 19:09	WG1560897
1,2,4-Trimethylbenzene	0.00287		0.000322	0.00100	1	10/17/2020 19:09	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 19:09	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 19:09	WG1560897
o-Xylene	0.000402	J	0.000174	0.00100	1	10/17/2020 19:09	WG1560897
m&p-Xylene	0.00249		0.000430	0.00200	1	10/17/2020 19:09	WG1560897
Xylenes, Total	0.00289	J	0.000174	0.00300	1	10/17/2020 19:09	WG1560897
(S) Toluene-d8	*103*			*80.0-120*		*10/17/2020 19:09*	WG1560897
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/17/2020 19:09*	WG1560897
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 19:09*	WG1560897

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.05		0.0247	0.100	1	10/14/2020 14:32	WG1557908
(S) o-Terphenyl	*111*			*31.0-160*		*10/14/2020 14:32*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	5460		14.1	50.0	1	10/14/2020 22:24	WG1558087

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	10.9		0.250	0.500	5	10/21/2020 18:14	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	504		37.9	100	100	10/13/2020 22:22	WG1558271
Fluoride	1.13		0.0640	0.150	1	10/13/2020 22:12	WG1558271
Sulfate	2970		59.4	500	100	10/13/2020 22:22	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.00368	0.0100	5	10/13/2020 00:29	WG1557632
Barium	U		0.0389	0.100	5	10/13/2020 00:29	WG1557632
Calcium	538		2.40	5.00	5	10/13/2020 00:29	WG1557632
Chromium	U		0.00745	0.0100	5	10/13/2020 00:29	WG1557632
Iron	0.745		0.244	0.500	5	10/13/2020 00:29	WG1557632
Lead	U		0.0124	0.0250	5	10/13/2020 00:29	WG1557632
Manganese	0.0315		0.00660	0.0250	5	10/13/2020 00:29	WG1557632
Potassium	U		2.67	10.0	5	10/13/2020 00:29	WG1557632
Selenium	0.0186		0.00328	0.0100	5	10/13/2020 00:29	WG1557632
Sodium	621		3.15	10.0	5	10/13/2020 00:29	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/17/2020 11:33	WG1560698
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*		*10/17/2020 11:33*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 19:30	WG1560897
Benzene	0.00250		0.0000941	0.00100	1	10/17/2020 19:30	WG1560897
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 19:30	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 19:30	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 19:30	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 19:30	WG1560897
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 19:30	WG1560897
Carbon disulfide	0.000188	B J	0.0000962	0.00100	1	10/17/2020 19:30	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 19:30	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 19:30	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 19:30	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 19:30	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 19:30	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 19:30	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 19:30	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 19:30	WG1560897

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 19:30	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 19:30	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 19:30	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 19:30	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 19:30	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 19:30	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 19:30	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 19:30	WG1560897
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 19:30	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 19:30	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 19:30	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 19:30	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 19:30	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 19:30	WG1560897
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/17/2020 19:30	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 19:30	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 19:30	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 19:30	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 19:30	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 19:30	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 19:30	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 19:30	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 19:30	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 19:30	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 19:30	WG1560897
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 19:30	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 19:30	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 19:30	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 19:30	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 19:30	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 19:30	WG1560897
(S) Toluene-d8	*110*			*80.0-120*		*10/17/2020 19:30*	WG1560897
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*10/17/2020 19:30*	WG1560897
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*10/17/2020 19:30*	WG1560897

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0723	B J	0.0247	0.100	1	10/15/2020 10:06	WG1557911
(S) o-Terphenyl	*85.8*			*31.0-160*		*10/15/2020 10:06*	WG1557911

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2930		5.64	20.0	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.414		0.0500	0.100	1	10/21/2020 18:15	WG1560789

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 03:53	WG1559964

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	541		37.9	100	100	10/13/2020 23:06	WG1558271
Fluoride	0.652		0.0640	0.150	1	10/13/2020 22:55	WG1558271
Sulfate	1090		59.4	500	100	10/13/2020 23:06	WG1558271

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 08:52	WG1557453

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.387		0.0254	0.200	1	10/13/2020 14:39	WG1557841

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.00403		0.000735	0.00200	1	10/12/2020 21:30	WG1557632
Barium	0.0227		0.00778	0.0200	1	10/12/2020 21:30	WG1557632
Cadmium	U		0.000478	0.00100	1	10/12/2020 21:30	WG1557632
Calcium	396		0.480	1.00	1	10/12/2020 21:30	WG1557632
Chromium	U		0.00149	0.00200	1	10/12/2020 21:30	WG1557632
Cobalt	0.00271		0.000477	0.00200	1	10/12/2020 21:30	WG1557632
Iron	1.05		0.0489	0.100	1	10/12/2020 21:30	WG1557632
Lead	U		0.00249	0.00500	1	10/12/2020 21:30	WG1557632
Manganese	0.471		0.00132	0.00500	1	10/12/2020 21:30	WG1557632
Nickel	0.00413		0.000952	0.00200	1	10/12/2020 21:30	WG1557632
Potassium	0.676	J	0.534	2.00	1	10/12/2020 21:30	WG1557632
Selenium	0.00134	J	0.000657	0.00200	1	10/12/2020 21:30	WG1557632
Sodium	306		0.630	2.00	1	10/12/2020 21:30	WG1557632
Uranium	0.0118	J	0.00754	0.0200	1	10/12/2020 21:30	WG1557632
Vanadium	0.00555		0.000986	0.00500	1	10/12/2020 21:30	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0992	J	0.0314	0.100	1	10/17/2020 11:59	WG1560698

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L1271301

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*113*			*78.0-120*		*10/17/2020 11:59*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 19:50	WG1560897
Benzene	0.00234		0.0000941	0.00100	1	10/17/2020 19:50	WG1560897
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 19:50	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 19:50	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 19:50	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 19:50	WG1560897
sec-Butylbenzene	0.00279		0.000125	0.00100	1	10/17/2020 19:50	WG1560897
Carbon disulfide	0.000169	B J	0.0000962	0.00100	1	10/17/2020 19:50	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 19:50	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 19:50	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 19:50	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 19:50	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 19:50	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 19:50	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 19:50	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 19:50	WG1560897
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 19:50	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 19:50	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 19:50	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 19:50	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 19:50	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 19:50	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 19:50	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 19:50	WG1560897
Isopropylbenzene	0.000380	J	0.000105	0.00100	1	10/17/2020 19:50	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 19:50	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 19:50	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 19:50	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 19:50	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 19:50	WG1560897
Methyl tert-butyl ether	0.00307		0.000101	0.00100	1	10/17/2020 19:50	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 19:50	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 19:50	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 19:50	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 19:50	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 19:50	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 19:50	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 19:50	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 19:50	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 19:50	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 19:50	WG1560897
1,2,4-Trimethylbenzene	0.00151		0.000322	0.00100	1	10/17/2020 19:50	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 19:50	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 19:50	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 19:50	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 19:50	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 19:50	WG1560897
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 19:50*	WG1560897
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 19:50*	WG1560897
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 19:50*	WG1560897

Released to Imaging: 11/21/2023 10:16:55 AM

Received by OCD: 6/23/2021 4:05:29 PM

KWB-1A
Collected date/time: 10/06/20 10:25
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.376		0.0247	0.100	1	10/14/2020 14:58	WG1557908
(S) o-Terphenyl	*108*			*31.0-160*		*10/14/2020 14:58*	WG1557908

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3130		3.75	13.3	1	10/13/2020 19:46	WG1558089

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	3.03		0.0500	0.100	1	10/21/2020 18:16	WG1560789

Wet Chemistry by Method 4500CN E-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Cyanide	U		0.00180	0.00500	1	10/16/2020 03:54	WG1559964

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	365		37.9	100	100	10/13/2020 23:28	WG1558271
Fluoride	0.395		0.0640	0.150	1	10/13/2020 23:17	WG1558271
Sulfate	1380		59.4	500	100	10/13/2020 23:28	WG1558271

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Mercury	U		0.000100	0.000200	1	10/13/2020 08:54	WG1557453

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Boron	0.111	J	0.0254	0.200	1	10/13/2020 14:43	WG1557841

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.00368	0.0100	5	10/13/2020 00:33	WG1557632
Barium	U		0.0389	0.100	5	10/13/2020 00:33	WG1557632
Cadmium	U		0.00239	0.00500	5	10/13/2020 00:33	WG1557632
Calcium	509		2.40	5.00	5	10/13/2020 00:33	WG1557632
Chromium	U		0.00745	0.0100	5	10/13/2020 00:33	WG1557632
Cobalt	U		0.00238	0.0100	5	10/13/2020 00:33	WG1557632
Iron	U		0.244	0.500	5	10/13/2020 00:33	WG1557632
Lead	U		0.0124	0.0250	5	10/13/2020 00:33	WG1557632
Manganese	U		0.00660	0.0250	5	10/13/2020 00:33	WG1557632
Nickel	U		0.00476	0.0100	5	10/13/2020 00:33	WG1557632
Potassium	U		2.67	10.0	5	10/13/2020 00:33	WG1557632
Selenium	0.00750	J	0.00328	0.0100	5	10/13/2020 00:33	WG1557632
Sodium	100		3.15	10.0	5	10/13/2020 00:33	WG1557632
Uranium	U		0.0377	0.100	5	10/13/2020 00:33	WG1557632
Vanadium	0.00905	J	0.00493	0.0250	5	10/13/2020 00:33	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/17/2020 12:25	WG1560698

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L1271301

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*		*10/17/2020 12:25*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 20:11	WG1560897
Benzene	0.00192		0.0000941	0.00100	1	10/17/2020 20:11	WG1560897
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 20:11	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 20:11	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 20:11	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 20:11	WG1560897
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 20:11	WG1560897
Carbon disulfide	0.000191	B J	0.0000962	0.00100	1	10/17/2020 20:11	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 20:11	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 20:11	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 20:11	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 20:11	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 20:11	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 20:11	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 20:11	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 20:11	WG1560897
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 20:11	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 20:11	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 20:11	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 20:11	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 20:11	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 20:11	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 20:11	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 20:11	WG1560897
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 20:11	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 20:11	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 20:11	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 20:11	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 20:11	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 20:11	WG1560897
Methyl tert-butyl ether	0.00156		0.000101	0.00100	1	10/17/2020 20:11	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 20:11	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 20:11	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 20:11	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 20:11	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 20:11	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 20:11	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 20:11	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 20:11	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 20:11	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 20:11	WG1560897
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 20:11	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 20:11	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 20:11	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 20:11	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 20:11	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 20:11	WG1560897
(S) Toluene-d8	*112*			*80.0-120*		*10/17/2020 20:11*	WG1560897
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 20:11*	WG1560897
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 20:11*	WG1560897

Released to Imaging: 11/21/2023 10:16:55 AM

KWB-1B
Collected date/time: 10/06/20 11:10
L1271301

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.0956	J	0.0247	0.100	1	10/14/2020 15:23	WG1557908
(S) o-Terphenyl	*100*			*31.0-160*		*10/14/2020 15:23*	WG1557908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	3530		5.64	20.0	1	10/14/2020 22:24	WG1558087

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/21/2020 18:17	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	418		37.9	100	100	10/13/2020 23:49	WG1558271
Fluoride	1.47		0.0640	0.150	1	10/13/2020 23:38	WG1558271
Sulfate	1430		59.4	500	100	10/13/2020 23:49	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0170		0.000735	0.00200	1	10/12/2020 17:10	WG1557632
Barium	0.0188	J	0.00778	0.0200	1	10/12/2020 17:10	WG1557632
Calcium	336		0.480	1.00	1	10/12/2020 17:10	WG1557632
Chromium	U		0.00149	0.00200	1	10/12/2020 17:10	WG1557632
Iron	0.294		0.0489	0.100	1	10/12/2020 17:10	WG1557632
Lead	U		0.00249	0.00500	1	10/12/2020 17:10	WG1557632
Manganese	0.233	V	0.00132	0.00500	1	10/12/2020 17:10	WG1557632
Potassium	1.90	J	0.534	2.00	1	10/12/2020 17:10	WG1557632
Selenium	0.000944	J	0.000657	0.00200	1	10/12/2020 17:10	WG1557632
Sodium	333	V	0.630	2.00	1	10/12/2020 17:10	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0886	J	0.0314	0.100	1	10/17/2020 12:51	WG1560698
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/17/2020 12:51*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 20:32	WG1560897
Benzene	0.00158		0.0000941	0.00100	1	10/17/2020 20:32	WG1560897
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 20:32	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 20:32	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 20:32	WG1560897
n-Butylbenzene	U		0.000157	0.00100	1	10/17/2020 20:32	WG1560897
sec-Butylbenzene	U		0.000125	0.00100	1	10/17/2020 20:32	WG1560897
Carbon disulfide	0.000298	B J	0.0000962	0.00100	1	10/17/2020 20:32	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 20:32	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 20:32	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 20:32	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 20:32	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 20:32	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 20:32	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 20:32	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 20:32	WG1560897

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 20:32	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 20:32	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 20:32	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 20:32	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 20:32	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 20:32	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 20:32	WG1560897
Ethylbenzene	U		0.000137	0.00100	1	10/17/2020 20:32	WG1560897
Isopropylbenzene	U		0.000105	0.00100	1	10/17/2020 20:32	WG1560897
p-Isopropyltoluene	U		0.000120	0.00100	1	10/17/2020 20:32	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 20:32	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 20:32	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 20:32	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 20:32	WG1560897
Methyl tert-butyl ether	0.00251		0.000101	0.00100	1	10/17/2020 20:32	WG1560897
Naphthalene	U		0.00100	0.00500	1	10/17/2020 20:32	WG1560897
n-Propylbenzene	U		0.0000993	0.00100	1	10/17/2020 20:32	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 20:32	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 20:32	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 20:32	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 20:32	WG1560897
Toluene	U		0.000278	0.00100	1	10/17/2020 20:32	WG1560897
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/17/2020 20:32	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 20:32	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 20:32	WG1560897
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/17/2020 20:32	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 20:32	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 20:32	WG1560897
o-Xylene	U		0.000174	0.00100	1	10/17/2020 20:32	WG1560897
m&p-Xylene	U		0.000430	0.00200	1	10/17/2020 20:32	WG1560897
Xylenes, Total	U		0.000174	0.00300	1	10/17/2020 20:32	WG1560897
(S) Toluene-d8	*108*			*80.0-120*		*10/17/2020 20:32*	WG1560897
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*10/17/2020 20:32*	WG1560897
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/17/2020 20:32*	WG1560897

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.28		0.0247	0.100	1	10/15/2020 10:26	WG1557911
(S) o-Terphenyl	*97.9*			*31.0-160*		*10/15/2020 10:26*	WG1557911

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	2210		2.82	10.0	1	10/14/2020 22:24	WG1558087

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.128		0.0500	0.100	1	10/21/2020 18:19	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	185		7.58	20.0	20	10/14/2020 00:22	WG1558271
Fluoride	0.536		0.0640	0.150	1	10/14/2020 00:11	WG1558271
Sulfate	786		11.9	100	20	10/14/2020 00:22	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.00368	0.0100	5	10/13/2020 00:36	WG1557632
Barium	0.0408	J	0.0389	0.100	5	10/13/2020 00:36	WG1557632
Calcium	280		2.40	5.00	5	10/13/2020 00:36	WG1557632
Chromium	U		0.00745	0.0100	5	10/13/2020 00:36	WG1557632
Iron	U		0.244	0.500	5	10/13/2020 00:36	WG1557632
Lead	U		0.0124	0.0250	5	10/13/2020 00:36	WG1557632
Manganese	1.12		0.00660	0.0250	5	10/13/2020 00:36	WG1557632
Potassium	U		2.67	10.0	5	10/13/2020 00:36	WG1557632
Selenium	U		0.00328	0.0100	5	10/13/2020 00:36	WG1557632
Sodium	177		3.15	10.0	5	10/13/2020 00:36	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	3.30		0.0314	0.100	1	10/17/2020 13:16	WG1560698
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*78.0-120*		*10/17/2020 13:16*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/17/2020 20:52	WG1560897
Benzene	0.428		0.000941	0.0100	10	10/19/2020 21:37	WG1561763
Bromodichloromethane	U		0.000136	0.00100	1	10/17/2020 20:52	WG1560897
Bromoform	U		0.000129	0.00100	1	10/17/2020 20:52	WG1560897
Bromomethane	U		0.000605	0.00500	1	10/17/2020 20:52	WG1560897
n-Butylbenzene	0.00112		0.000157	0.00100	1	10/17/2020 20:52	WG1560897
sec-Butylbenzene	0.00332		0.000125	0.00100	1	10/17/2020 20:52	WG1560897
Carbon disulfide	0.000234	B J	0.0000962	0.00100	1	10/17/2020 20:52	WG1560897
Carbon tetrachloride	U		0.000128	0.00100	1	10/17/2020 20:52	WG1560897
Chlorobenzene	U		0.000116	0.00100	1	10/17/2020 20:52	WG1560897
Chlorodibromomethane	U		0.000140	0.00100	1	10/17/2020 20:52	WG1560897
Chloroethane	U		0.000192	0.00500	1	10/17/2020 20:52	WG1560897
Chloroform	U		0.000111	0.00500	1	10/17/2020 20:52	WG1560897
Chloromethane	U		0.000960	0.00250	1	10/17/2020 20:52	WG1560897
1,2-Dibromoethane	U		0.000126	0.00100	1	10/17/2020 20:52	WG1560897
1,1-Dichloroethane	U		0.000100	0.00100	1	10/17/2020 20:52	WG1560897

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/17/2020 20:52	WG1560897
1,1-Dichloroethene	U		0.000188	0.00100	1	10/17/2020 20:52	WG1560897
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/17/2020 20:52	WG1560897
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/17/2020 20:52	WG1560897
1,2-Dichloropropane	U		0.000149	0.00100	1	10/17/2020 20:52	WG1560897
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/17/2020 20:52	WG1560897
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/17/2020 20:52	WG1560897
Ethylbenzene	0.137		0.000137	0.00100	1	10/17/2020 20:52	WG1560897
Isopropylbenzene	0.0226		0.000105	0.00100	1	10/17/2020 20:52	WG1560897
p-Isopropyltoluene	0.00191		0.000120	0.00100	1	10/17/2020 20:52	WG1560897
2-Butanone (MEK)	U		0.00119	0.0100	1	10/17/2020 20:52	WG1560897
2-Hexanone	U		0.000787	0.0100	1	10/17/2020 20:52	WG1560897
Methylene Chloride	U		0.000430	0.00500	1	10/17/2020 20:52	WG1560897
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/17/2020 20:52	WG1560897
Methyl tert-butyl ether	0.0118		0.000101	0.00100	1	10/17/2020 20:52	WG1560897
Naphthalene	0.0104		0.00100	0.00500	1	10/17/2020 20:52	WG1560897
n-Propylbenzene	0.0295		0.0000993	0.00100	1	10/17/2020 20:52	WG1560897
Styrene	U		0.000118	0.00100	1	10/17/2020 20:52	WG1560897
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/17/2020 20:52	WG1560897
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/17/2020 20:52	WG1560897
Tetrachloroethene	U		0.000300	0.00100	1	10/17/2020 20:52	WG1560897
Toluene	0.00403		0.000278	0.00100	1	10/17/2020 20:52	WG1560897
1,1,1-Trichloroethane	0.000154	J	0.000149	0.00100	1	10/17/2020 20:52	WG1560897
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/17/2020 20:52	WG1560897
Trichloroethene	U		0.000190	0.00100	1	10/17/2020 20:52	WG1560897
1,2,4-Trimethylbenzene	0.114		0.000322	0.00100	1	10/17/2020 20:52	WG1560897
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/17/2020 20:52	WG1560897
Vinyl chloride	U		0.000234	0.00100	1	10/17/2020 20:52	WG1560897
o-Xylene	0.000755	J	0.000174	0.00100	1	10/17/2020 20:52	WG1560897
m&p-Xylene	0.165		0.000430	0.00200	1	10/17/2020 20:52	WG1560897
Xylenes, Total	0.166		0.000174	0.00300	1	10/17/2020 20:52	WG1560897
(S) Toluene-d8	*105*			*80.0-120*		*10/17/2020 20:52*	WG1560897
(S) Toluene-d8	*107*			*80.0-120*		*10/19/2020 21:37*	WG1561763
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/17/2020 20:52*	WG1560897
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/19/2020 21:37*	WG1561763
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/17/2020 20:52*	WG1560897
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*10/19/2020 21:37*	WG1561763

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.814		0.0247	0.100	1	10/15/2020 10:46	WG1557911
(S) o-Terphenyl	*127*			*31.0-160*		*10/15/2020 10:46*	WG1557911

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Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	7.00	B J	2.82	10.0	1	10/14/2020 22:24	WG1558087

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	U		0.0500	0.100	1	10/21/2020 18:20	WG1560789

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	1.25		0.379	1.00	1	10/14/2020 00:00	WG1558271
Fluoride	U		0.0640	0.150	1	10/14/2020 00:00	WG1558271
Sulfate	3.22	J	0.594	5.00	1	10/14/2020 00:00	WG1558271

Metals (ICPMS) by Method 6020

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	U		0.000735	0.00200	1	10/13/2020 00:07	WG1557632
Barium	U		0.00778	0.0200	1	10/13/2020 00:07	WG1557632
Calcium	U		0.480	1.00	1	10/13/2020 00:07	WG1557632
Chromium	U		0.00149	0.00200	1	10/13/2020 00:07	WG1557632
Iron	U		0.0489	0.100	1	10/13/2020 00:07	WG1557632
Lead	U		0.00249	0.00500	1	10/13/2020 00:07	WG1557632
Manganese	U		0.00132	0.00500	1	10/13/2020 00:07	WG1557632
Potassium	U		0.534	2.00	1	10/13/2020 00:07	WG1557632
Selenium	U		0.000657	0.00200	1	10/13/2020 00:07	WG1557632
Sodium	U		0.630	2.00	1	10/13/2020 00:07	WG1557632

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/17/2020 10:42	WG1560698
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/17/2020 10:42*	WG1560698

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0113	0.0500	1	10/19/2020 03:36	WG1561357
Benzene	0.000133	B J	0.0000941	0.00100	1	10/19/2020 03:36	WG1561357
Bromodichloromethane	U		0.000136	0.00100	1	10/19/2020 03:36	WG1561357
Bromoform	U		0.000129	0.00100	1	10/19/2020 03:36	WG1561357
Bromomethane	U		0.000605	0.00500	1	10/19/2020 03:36	WG1561357
n-Butylbenzene	U		0.000157	0.00100	1	10/19/2020 03:36	WG1561357
sec-Butylbenzene	U		0.000125	0.00100	1	10/19/2020 03:36	WG1561357
Carbon disulfide	0.000239	B J	0.0000962	0.00100	1	10/19/2020 03:36	WG1561357
Carbon tetrachloride	U		0.000128	0.00100	1	10/19/2020 03:36	WG1561357
Chlorobenzene	U		0.000116	0.00100	1	10/19/2020 03:36	WG1561357
Chlorodibromomethane	U		0.000140	0.00100	1	10/19/2020 03:36	WG1561357
Chloroethane	U		0.000192	0.00500	1	10/19/2020 03:36	WG1561357
Chloroform	U		0.000111	0.00500	1	10/19/2020 03:36	WG1561357
Chloromethane	U		0.000960	0.00250	1	10/19/2020 03:36	WG1561357
1,2-Dibromoethane	U		0.000126	0.00100	1	10/19/2020 03:36	WG1561357
1,1-Dichloroethane	U		0.000100	0.00100	1	10/19/2020 03:36	WG1561357

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	U		0.0000819	0.00100	1	10/19/2020 03:36	WG1561357
1,1-Dichloroethene	U		0.000188	0.00100	1	10/19/2020 03:36	WG1561357
cis-1,2-Dichloroethene	U		0.000126	0.00100	1	10/19/2020 03:36	WG1561357
trans-1,2-Dichloroethene	U		0.000149	0.00100	1	10/19/2020 03:36	WG1561357
1,2-Dichloropropane	U		0.000149	0.00100	1	10/19/2020 03:36	WG1561357
cis-1,3-Dichloropropene	U		0.000111	0.00100	1	10/19/2020 03:36	WG1561357
trans-1,3-Dichloropropene	U		0.000118	0.00100	1	10/19/2020 03:36	WG1561357
Ethylbenzene	U		0.000137	0.00100	1	10/19/2020 03:36	WG1561357
Isopropylbenzene	U		0.000105	0.00100	1	10/19/2020 03:36	WG1561357
p-Isopropyltoluene	U		0.000120	0.00100	1	10/19/2020 03:36	WG1561357
2-Butanone (MEK)	U		0.00119	0.0100	1	10/19/2020 03:36	WG1561357
2-Hexanone	U		0.000787	0.0100	1	10/19/2020 03:36	WG1561357
Methylene Chloride	U		0.000430	0.00500	1	10/19/2020 03:36	WG1561357
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	1	10/19/2020 03:36	WG1561357
Methyl tert-butyl ether	U		0.000101	0.00100	1	10/19/2020 03:36	WG1561357
Naphthalene	U		0.00100	0.00500	1	10/19/2020 03:36	WG1561357
n-Propylbenzene	U		0.0000993	0.00100	1	10/19/2020 03:36	WG1561357
Styrene	U		0.000118	0.00100	1	10/19/2020 03:36	WG1561357
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	1	10/19/2020 03:36	WG1561357
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	1	10/19/2020 03:36	WG1561357
Tetrachloroethene	U		0.000300	0.00100	1	10/19/2020 03:36	WG1561357
Toluene	U		0.000278	0.00100	1	10/19/2020 03:36	WG1561357
1,1,1-Trichloroethane	U		0.000149	0.00100	1	10/19/2020 03:36	WG1561357
1,1,2-Trichloroethane	U		0.000158	0.00100	1	10/19/2020 03:36	WG1561357
Trichloroethene	U		0.000190	0.00100	1	10/19/2020 03:36	WG1561357
1,2,4-Trimethylbenzene	U		0.000322	0.00100	1	10/19/2020 03:36	WG1561357
1,3,5-Trimethylbenzene	U		0.000104	0.00100	1	10/19/2020 03:36	WG1561357
Vinyl chloride	U		0.000234	0.00100	1	10/19/2020 03:36	WG1561357
o-Xylene	U		0.000174	0.00100	1	10/19/2020 03:36	WG1561357
m&p-Xylene	U		0.000430	0.00200	1	10/19/2020 03:36	WG1561357
Xylenes, Total	U		0.000174	0.00300	1	10/19/2020 03:36	WG1561357
(S) Toluene-d8	*109*			*80.0-120*		*10/19/2020 03:36*	WG1561357
(S) 4-Bromofluorobenzene	*100*			*77.0-126*		*10/19/2020 03:36*	WG1561357
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/19/2020 03:36*	WG1561357

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/15/2020 11:06	WG1557911
(S) o-Terphenyl	*85.8*			*31.0-160*		*10/15/2020 11:06*	WG1557911

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3581348-1 10/13/20 14:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271301-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-08 10/13/20 14:38 • (DUP) R3581348-3 10/13/20 14:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3870	4090	1	5.53	J3	5

L1271301-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-16 10/13/20 14:38 • (DUP) R3581348-4 10/13/20 14:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3520	3480	1	1.07		5

Laboratory Control Sample (LCS)

(LCS) R3581348-2 10/13/20 14:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8540	97.0	77.4-123	

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Method Blank (MB)

(MB) R3581629-1 10/13/20 17:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	5.00	J	2.82	10.0

L1271301-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-24 10/13/20 17:56 • (DUP) R3581629-3 10/13/20 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4350	4580	1	4.97		5

L1271301-34 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-34 10/13/20 17:56 • (DUP) R3581629-4 10/13/20 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	7810	7560	1	3.30		5

Laboratory Control Sample (LCS)

(LCS) R3581629-2 10/13/20 17:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8490	96.5	77.4-123	

Method Blank (MB)

(MB) R3581627-1 10/13/20 17:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271301-38 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-38 10/13/20 17:56 • (DUP) R3581627-3 10/13/20 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4970	4790	1	3.65		5

L1271301-51 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-51 10/13/20 17:56 • (DUP) R3581627-4 10/13/20 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3690	3770	1	2.36		5

Laboratory Control Sample (LCS)

(LCS) R3581627-2 10/13/20 17:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8690	98.8	77.4-123	

Method Blank (MB)

(MB) R3581978-1 10/13/20 23:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271239-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271239-01 10/13/20 23:02 • (DUP) R3581978-3 10/13/20 23:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1940	1930	1	0.310		5

L1271812-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1271812-09 10/13/20 23:02 • (DUP) R3581978-4 10/13/20 23:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3560	3610	1	1.45		5

Laboratory Control Sample (LCS)

(LCS) R3581978-2 10/13/20 23:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8870	101	77.4-123	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3582135-1 10/14/20 02:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	3.00	J	2.82	10.0

L1271259-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271259-01 10/14/20 02:47 • (DUP) R3582135-3 10/14/20 02:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	971	980	1	0.923		5

L1271609-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271609-01 10/14/20 02:47 • (DUP) R3582135-4 10/14/20 02:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	900	911	1	1.21		5

Laboratory Control Sample (LCS)

(LCS) R3582135-2 10/14/20 02:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8810	100	77.4-123	

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Method Blank (MB)

(MB) R3582479-1 10/14/20 22:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	3.00	J	2.82	10.0

L1270283-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1270283-01 10/14/20 22:24 • (DUP) R3582479-3 10/14/20 22:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	183	187	1	2.16		5

L1270444-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1270444-01 10/14/20 22:24 • (DUP) R3582479-4 10/14/20 22:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1390	1410	1	1.50		5

Laboratory Control Sample (LCS)

(LCS) R3582479-2 10/14/20 22:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8790	99.9	77.4-123	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3581630-1 10/13/20 19:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1271301-58 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-58 10/13/20 19:46 • (DUP) R3581630-3 10/13/20 19:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2930	2960	1	0.952		5

L1271301-59 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-59 10/13/20 19:46 • (DUP) R3581630-4 10/13/20 19:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	3130	3210	1	2.48		5

Laboratory Control Sample (LCS)

(LCS) R3581630-2 10/13/20 19:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8520	96.8	77.4-123	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3581958-1 10/13/20 21:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1270630-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270630-02 10/13/20 21:36 • (DUP) R3581958-3 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	159	155	1	2.55		5

L1271301-53 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-53 10/13/20 21:36 • (DUP) R3581958-4 10/13/20 21:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	4440	4390	1	1.27		5

Laboratory Control Sample (LCS)

(LCS) R3581958-2 10/13/20 21:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8840	100	77.4-123	

Method Blank (MB)

(MB) R3582489-1 10/16/20 20:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271298-22 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-22 10/16/20 20:04 • (DUP) R3582489-3 10/16/20 20:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271298-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-36 10/16/20 20:21 • (DUP) R3582489-5 10/16/20 20:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.0505	0.0526	1	4.07	J	20

Laboratory Control Sample (LCS)

(LCS) R3582489-2 10/16/20 20:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.34	93.6	90.0-110	

L1271298-35 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271298-35 10/16/20 20:19 • (MS) R3582489-4 10/16/20 20:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	0.245	2.40	86.2	1	90.0-110	J6

L1271301-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-02 10/16/20 20:52 • (MS) R3582489-6 10/16/20 20:53 • (MSD) R3582489-7 10/16/20 20:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	0.250	15.3	17.8	17.4	100	84.0	10	90.0-110		V	2.27	20

Method Blank (MB)

(MB) R3582451-1 10/16/20 16:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271301-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-20 10/16/20 16:30 • (DUP) R3582451-5 10/16/20 16:32

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271301-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-23 10/16/20 18:05 • (DUP) R3582451-7 10/16/20 18:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.203	0.205	1	0.980		20

Laboratory Control Sample (LCS)

(LCS) R3582451-2 10/16/20 16:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.35	94.0	90.0-110	

L1271301-19 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-19 10/16/20 16:26 • (MS) R3582451-3 10/16/20 16:28 • (MSD) R3582451-4 10/16/20 16:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.67	2.13	107	85.2	1	90.0-110		J3 J6	22.5	20

L1271301-16 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-16 10/16/20 16:57 • (MS) R3582451-6 10/16/20 16:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	9.01	11.2	87.6	1	90.0-110	E J6

Method Blank (MB)

(MB) R3582077-1 10/15/20 21:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271301-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-28 10/15/20 21:21 • (DUP) R3582077-3 10/15/20 21:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

L1271301-50 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-50 10/15/20 21:54 • (DUP) R3582077-4 10/15/20 21:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582077-2 10/15/20 21:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.38	95.2	90.0-110	

L1271301-51 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-51 10/15/20 21:56 • (MS) R3582077-5 10/15/20 21:58 • (MSD) R3582077-6 10/15/20 21:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	U	2.60	2.51	104	100	1	90.0-110			3.52	20

L1271301-34 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-34 10/15/20 22:00 • (MS) R3582077-7 10/15/20 22:01

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	0.0500	78.5	80.0	60.0	50	90.0-110	V

Method Blank (MB)

(MB) R3584086-1 10/21/20 17:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1271301-53 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-53 10/21/20 18:01 • (DUP) R3584086-3 10/21/20 18:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	U	U	20	0.000		20

Sample Narrative:

OS: dilution due to sulfide interference

L1271467-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271467-01 10/21/20 18:29 • (DUP) R3584086-6 10/21/20 18:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	2.39	2.38	1	0.419		20

Laboratory Control Sample (LCS)

(LCS) R3584086-2 10/21/20 17:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	4.00	2.50	100	90.0-110	

L1271301-55 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-55 10/21/20 18:05 • (MS) R3584086-4 10/21/20 18:06 • (MSD) R3584086-5 10/21/20 18:07

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate-Nitrite	2.50	0.842	3.09	2.93	89.9	83.5	1	90.0-110	J6	J6	5.32	20

Received by OCD: 6/23/2021 4:05:29 PM

L1271481-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271481-02 10/21/20 18:35 • (MS) R3584086-7 10/21/20 18:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate-Nitrite	2.50	U	2.31	89.6	1	90.0-110	J6

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582097-1 10/16/20 00:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1270328-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270328-02 10/16/20 00:21 • (DUP) R3582097-3 10/16/20 00:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00181	0.00206	1	0.000		20

L1270562-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270562-02 10/16/20 00:23 • (DUP) R3582097-4 10/16/20 00:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.00261	0.00222	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582097-2 10/16/20 00:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.101	101	87.1-120	

L1270653-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1270653-01 10/16/20 00:25 • (MS) R3582097-5 10/16/20 00:26 • (MSD) R3582097-6 10/16/20 00:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	U	U	0.000	0.000	1	90.0-110	J6	J6	0.000	20

L1271301-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-14 10/16/20 00:30 • (MS) R3582097-7 10/16/20 00:31 • (MSD) R3582097-8 10/16/20 00:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0979	0.0991	97.9	99.1	1	90.0-110			1.22	20

Method Blank (MB)

(MB) R3582104-1 10/16/20 03:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1270884-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270884-02 10/16/20 03:45 • (DUP) R3582104-3 10/16/20 03:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	0.0278	0.0249	1	11.0		20

L1271478-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1271478-02 10/16/20 03:59 • (DUP) R3582104-6 10/16/20 04:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582104-2 10/16/20 03:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.0954	95.4	87.1-120	

L1271301-56 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-56 10/16/20 03:48 • (MS) R3582104-4 10/16/20 03:49 • (MSD) R3582104-5 10/16/20 03:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0877	0.0849	87.7	84.9	1	90.0-110	J6	J6	3.24	20

L1271535-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271535-01 10/16/20 04:02 • (MS) R3582104-7 10/16/20 04:05 • (MSD) R3582104-8 10/16/20 04:06

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	U	0.0976	0.00281	97.6	2.81	1	90.0-110		J3 J6	189	20

Method Blank (MB)

(MB) R3582107-1 10/16/20 04:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Cyanide	U		0.00180	0.00500

L1270958-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1270958-02 10/16/20 04:34 • (DUP) R3582107-3 10/16/20 04:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	0.00187	1	0.000		20

L1271284-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1271284-07 10/16/20 04:45 • (DUP) R3582107-6 10/16/20 04:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Cyanide	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3582107-2 10/16/20 04:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Cyanide	0.100	0.106	106	87.1-120	

L1271000-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271000-02 10/16/20 04:39 • (MS) R3582107-4 10/16/20 04:40 • (MSD) R3582107-5 10/16/20 04:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00382	0.108	0.103	104	99.2	1	90.0-110			4.74	20

L1271576-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271576-03 10/16/20 05:24 • (MS) R3582107-7 10/16/20 05:25 • (MSD) R3582107-8 10/16/20 05:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Cyanide	0.100	0.00223	0.0894	0.0935	87.2	91.3	1	90.0-110	J6		4.48	20

Method Blank (MB)

(MB) R3581674-1 10/14/20 14:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271298-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271298-36 10/14/20 22:25 • (DUP) R3581674-3 10/14/20 22:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5.84	5.83	1	0.0771		15
Fluoride	U	U	1	0.000		15
Sulfate	5.05	4.95	1	1.95	J	15

L1271301-44 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-44 10/15/20 02:00 • (DUP) R3581674-6 10/15/20 02:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	0.428	1	200	J P1	15
Fluoride	U	U	1	0.000		15
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3581674-2 10/14/20 15:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.1	97.8	80.0-120	
Fluoride	8.00	8.02	100	80.0-120	
Sulfate	40.0	39.1	97.7	80.0-120	

Received by OCD: 6/23/2021 4:05:29 PM

L1271298-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-36 10/14/20 22:25 • (MS) R3581674-4 10/14/20 23:00 • (MSD) R3581674-5 10/14/20 23:18

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	5.84	55.8	56.1	99.9	100	1	80.0-120			0.546	15
Fluoride	5.00	U	5.00	5.03	99.9	101	1	80.0-120			0.666	15
Sulfate	50.0	5.05	54.9	55.2	99.7	100	1	80.0-120			0.487	15

L1271301-44 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-44 10/15/20 02:00 • (MS) R3581674-7 10/15/20 02:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	U	49.7	99.4	1	80.0-120	
Fluoride	5.00	U	4.99	99.8	1	80.0-120	
Sulfate	50.0	U	49.4	98.8	1	80.0-120	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3581782-1 10/14/20 16:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271301-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-01 10/14/20 17:04 • (DUP) R3581782-3 10/14/20 17:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.758	0.765	1	0.814		15

L1271301-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-01 10/14/20 17:41 • (DUP) R3581782-4 10/14/20 17:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	188	189	100	0.462		15
Sulfate	882	882	100	0.0274		15

L1271301-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-19 10/15/20 08:08 • (DUP) R3581782-8 10/15/20 08:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.710	0.711	1	0.0844		15
Sulfate	8.17	7.08	1	14.4		15

L1271301-19 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-19 10/15/20 08:45 • (DUP) R3581782-9 10/15/20 09:03

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	310	310	10	0.0328		15

Laboratory Control Sample (LCS)

(LCS) R3581782-2 10/14/20 16:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.5	98.7	80.0-120	
Fluoride	8.00	8.12	102	80.0-120	
Sulfate	40.0	39.6	99.0	80.0-120	

L1271301-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-02 10/14/20 18:17 • (MS) R3581782-5 10/14/20 18:36 • (MSD) R3581782-6 10/14/20 18:54

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	201	243	243	83.8	83.9	1	80.0-120	E	E	0.0237	15
Fluoride	5.00	1.62	6.44	6.45	96.4	96.8	1	80.0-120			0.258	15
Sulfate	50.0	1250	1260	1260	19.1	20.3	1	80.0-120	E V	E V	0.0475	15

L1271301-12 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-12 10/15/20 02:17 • (MS) R3581782-7 10/15/20 03:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	225	265	80.8	1	80.0-120	E
Fluoride	5.00	0.706	5.35	92.8	1	80.0-120	
Sulfate	50.0	1580	1590	11.8	1	80.0-120	E V

Method Blank (MB)

(MB) R3581561-1 10/13/20 19:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1271301-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-21 10/13/20 21:28 • (DUP) R3581561-3 10/13/20 21:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	192	192	1	0.0746	E	15
Fluoride	1.12	1.12	1	0.0714		15
Sulfate	6.68	6.70	1	0.214		15

L1271301-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-21 10/13/20 22:41 • (DUP) R3581561-6 10/13/20 22:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	189	189	5	0.0751		15

L1271301-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-36 10/14/20 09:46 • (DUP) R3581561-7 10/14/20 10:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	132	132	1	0.00689	E	15
Fluoride	1.15	1.15	1	0.0867		15
Sulfate	103	94.2	1	8.76		15

L1271301-36 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-36 10/14/20 10:41 • (DUP) R3581561-9 10/14/20 11:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	128	127	5	0.180		15
Sulfate	69.3	89.1	5	25.0	P1	15

Laboratory Control Sample (LCS)

(LCS) R3581561-2 10/13/20 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.4	98.4	80.0-120	
Fluoride	8.00	8.10	101	80.0-120	
Sulfate	40.0	39.6	99.1	80.0-120	

L1271301-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-21 10/13/20 21:28 • (MS) R3581561-4 10/13/20 22:04 • (MSD) R3581561-5 10/13/20 22:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	192	233	232	80.8	79.9	1	80.0-120	E	E J6	0.186	15
Fluoride	5.00	1.12	5.90	5.89	95.6	95.3	1	80.0-120			0.268	15
Sulfate	50.0	6.68	54.6	54.5	95.9	95.6	1	80.0-120			0.285	15

L1271301-36 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-36 10/14/20 09:46 • (MS) R3581561-8 10/14/20 10:23

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	132	176	88.5	1	80.0-120	E
Fluoride	5.00	1.15	6.24	102	1	80.0-120	
Sulfate	50.0	103	136	66.2	1	80.0-120	E J6

Method Blank (MB)

(MB) R3581370-1 10/13/20 08:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	U		0.379	1.00
Fluoride	U		0.0640	0.150
Sulfate	U		0.594	5.00

L1272493-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1272493-01 10/13/20 12:49 • (DUP) R3581370-3 10/13/20 13:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	122	124	1	1.50	E	15
Fluoride	3.29	3.38	1	2.71		15
Sulfate	113	116	1	2.04	E	15

L1271301-52 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-52 10/13/20 19:29 • (DUP) R3581370-6 10/13/20 19:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Fluoride	0.527	0.542	1	2.77		15

L1271301-52 Original Sample (OS) • Duplicate (DUP)

(OS) L1271301-52 10/13/20 19:50 • (DUP) R3581370-7 10/13/20 20:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	177	178	20	0.205		15
Sulfate	773	774	20	0.0836		15

Laboratory Control Sample (LCS)

(LCS) R3581370-2 10/13/20 08:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	38.9	97.3	80.0-120	
Fluoride	8.00	8.07	101	80.0-120	
Sulfate	40.0	38.6	96.5	80.0-120	

L1272493-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1272493-02 10/13/20 13:11 • (MS) R3581370-4 10/13/20 13:22 • (MSD) R3581370-5 10/13/20 13:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	161	206	205	90.1	86.8	1	80.0-120	E	E	0.801	15
Fluoride	5.00	3.17	8.35	8.45	104	106	1	80.0-120			1.28	15
Sulfate	50.0	133	184	184	102	102	1	80.0-120	E	E	0.0251	15

L1271301-54 Original Sample (OS) • Matrix Spike (MS)

(OS) L1271301-54 10/13/20 20:56 • (MS) R3581370-8 10/13/20 21:17

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	119	164	89.5	1	80.0-120	E
Fluoride	5.00	0.358	5.10	94.8	1	80.0-120	
Sulfate	50.0	1230	1250	42.4	1	80.0-120	E V

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3580958-1 10/13/20 09:22

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3580958-2 10/13/20 09:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00327	109	80.0-120	

L1271411-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271411-04 10/13/20 09:32 • (MS) R3580958-3 10/13/20 09:34 • (MSD) R3580958-4 10/13/20 09:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	0.000251	0.00251	0.00238	75.3	70.9	1	75.0-125		J6	5.33	20

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3580903-1 10/13/20 08:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000100	0.000200

Laboratory Control Sample (LCS)

(LCS) R3580903-2 10/13/20 08:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.00300	0.00307	102	80.0-120	

L1271785-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271785-02 10/13/20 08:43 • (MS) R3580903-3 10/13/20 08:45 • (MSD) R3580903-4 10/13/20 08:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.00300	U	0.00320	0.00307	107	102	1	75.0-125			3.92	20

Method Blank (MB)

(MB) R3580751-1 10/12/20 20:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3580751-2 10/12/20 20:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.961	96.1	80.0-120	

L1269158-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1269158-07 10/12/20 20:46 • (MS) R3580751-4 10/12/20 20:51 • (MSD) R3580751-5 10/12/20 20:54

Analyte	Spike Amount mg/l	Original Result	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00		0.983	0.984	98.3	98.4	1	75.0-125			0.118	20

Method Blank (MB)

(MB) R3581193-1 10/13/20 14:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Boron	U		0.0254	0.200

Laboratory Control Sample (LCS)

(LCS) R3581193-2 10/13/20 14:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Boron	1.00	0.977	97.7	80.0-120	

L1271471-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271471-01 10/13/20 14:09 • (MS) R3581193-4 10/13/20 14:14 • (MSD) R3581193-5 10/13/20 14:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Boron	1.00	0.0849	1.07	1.05	98.8	96.9	1	75.0-125			1.72	20

Method Blank (MB)

(MB) R3581272-1 10/14/20 01:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	0.957	J	0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Method Blank (MB)

(MB) R3581575-1 10/14/20 18:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sodium	0.764	J	0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3581272-2 10/14/20 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0483	96.6	80.0-120	
Barium	0.0500	0.0463	92.5	80.0-120	
Cadmium	0.0500	0.0541	108	80.0-120	
Calcium	5.00	4.93	98.7	80.0-120	
Chromium	0.0500	0.0513	103	80.0-120	
Cobalt	0.0500	0.0516	103	80.0-120	
Iron	5.00	4.99	99.8	80.0-120	
Lead	0.0500	0.0503	101	80.0-120	
Manganese	0.0500	0.0497	99.4	80.0-120	
Nickel	0.0500	0.0524	105	80.0-120	
Potassium	5.00	4.79	95.7	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3581272-2 10/14/20 01:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	0.0500	0.0505	101	80.0-120	
Sodium	5.00	4.83	96.7	80.0-120	
Uranium	0.0500	0.0486	97.2	80.0-120	
Vanadium	0.0500	0.0489	97.8	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3581575-2 10/14/20 18:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sodium	5.00	4.77	95.4	80.0-120	

L1271298-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-29 10/14/20 01:22 • (MS) R3581272-4 10/14/20 01:28 • (MSD) R3581272-5 10/14/20 01:31

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00783	0.0569	0.0573	98.1	99.0	1	75.0-125			0.773	20
Barium	0.0500	0.0169	0.0635	0.0650	93.3	96.1	1	75.0-125			2.20	20
Cadmium	0.0500	U	0.0509	0.0509	102	102	1	75.0-125			0.0707	20
Calcium	5.00	617	620	628	50.1	206	1	75.0-125	V	V	1.25	20
Chromium	0.0500	U	0.0495	0.0507	96.2	98.6	1	75.0-125			2.35	20
Cobalt	0.0500	0.00801	0.0566	0.0578	97.2	99.6	1	75.0-125			2.06	20
Potassium	5.00	23.5	28.0	28.2	89.6	94.7	1	75.0-125			0.893	20
Iron	5.00	0.925	5.66	5.72	94.7	95.9	1	75.0-125			1.06	20
Lead	0.0500	U	0.0510	0.0494	102	98.8	1	75.0-125			3.06	20
Manganese	0.0500	1.56	1.58	1.60	31.1	70.7	1	75.0-125	V	V	1.25	20
Nickel	0.0500	0.0177	0.0653	0.0674	95.0	99.2	1	75.0-125			3.16	20
Selenium	0.0500	U	0.0530	0.0538	106	108	1	75.0-125			1.46	20
Uranium	0.0500	0.0104	0.0619	0.0608	103	101	1	75.0-125			1.88	20
Vanadium	0.0500	U	0.0510	0.0519	100	102	1	75.0-125			1.81	20

L1271298-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271298-29 10/14/20 18:42 • (MS) R3581575-4 10/14/20 18:50 • (MSD) R3581575-5 10/14/20 18:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sodium	5.00	2820	2770	2800	0.000	0.000	1	75.0-125	E V	E V	0.919	20

Method Blank (MB)

(MB) R3582094-1 10/15/20 23:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	0.00360	J	0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3582094-2 10/15/20 23:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0501	100	80.0-120	
Barium	0.0500	0.0483	96.6	80.0-120	
Cadmium	0.0500	0.0515	103	80.0-120	
Calcium	5.00	5.21	104	80.0-120	
Chromium	0.0500	0.0519	104	80.0-120	
Cobalt	0.0500	0.0517	103	80.0-120	
Iron	5.00	5.16	103	80.0-120	
Lead	0.0500	0.0501	100	80.0-120	
Manganese	0.0500	0.0524	105	80.0-120	
Nickel	0.0500	0.0517	103	80.0-120	
Potassium	5.00	5.16	103	80.0-120	
Selenium	0.0500	0.0534	107	80.0-120	
Sodium	5.00	5.26	105	80.0-120	
Uranium	0.0500	0.0491	98.2	80.0-120	
Vanadium	0.0500	0.0528	106	80.0-120	

L1271301-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-10 10/15/20 23:46 • (MS) R3582094-4 10/15/20 23:54 • (MSD) R3582094-5 10/15/20 23:58

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.00451	0.0539	0.0510	98.9	93.0	1	75.0-125			5.59	20
Barium	0.0500	0.0101	0.0616	0.0607	103	101	1	75.0-125			1.42	20
Cadmium	0.0500	U	0.0521	0.0526	104	105	1	75.0-125			0.973	20
Calcium	5.00	641	616	625	0.000	0.000	1	75.0-125	V	V	1.42	20
Chromium	0.0500	0.00163	0.0515	0.0487	99.7	94.1	1	75.0-125			5.61	20
Cobalt	0.0500	U	0.0500	0.0475	99.6	94.5	1	75.0-125			5.26	20
Potassium	5.00	0.832	5.67	5.77	96.7	98.8	1	75.0-125			1.83	20
Iron	5.00	0.0836	5.05	4.78	99.4	93.9	1	75.0-125			5.64	20
Lead	0.0500	U	0.0508	0.0495	102	99.0	1	75.0-125			2.70	20
Manganese	0.0500	0.0114	0.0618	0.0585	101	94.1	1	75.0-125			5.45	20
Nickel	0.0500	0.00161	0.0505	0.0488	97.8	94.4	1	75.0-125			3.46	20
Selenium	0.0500	0.00422	0.0576	0.0568	107	105	1	75.0-125			1.39	20
Sodium	5.00	200	195	198	0.000	0.000	1	75.0-125	V	V	1.75	20
Uranium	0.0500	0.0476	0.0969	0.0965	98.5	97.7	1	75.0-125			0.417	20
Vanadium	0.0500	0.0189	0.0686	0.0654	99.4	93.0	1	75.0-125			4.75	20

Method Blank (MB)

(MB) R3581725-1 10/15/20 03:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3581725-2 10/15/20 03:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0483	96.6	80.0-120	
Barium	0.0500	0.0472	94.3	80.0-120	
Cadmium	0.0500	0.0518	104	80.0-120	
Calcium	5.00	4.94	98.8	80.0-120	
Chromium	0.0500	0.0514	103	80.0-120	
Cobalt	0.0500	0.0513	103	80.0-120	
Iron	5.00	5.14	103	80.0-120	
Lead	0.0500	0.0483	96.5	80.0-120	
Manganese	0.0500	0.0510	102	80.0-120	
Nickel	0.0500	0.0513	103	80.0-120	
Potassium	5.00	4.86	97.2	80.0-120	
Selenium	0.0500	0.0501	100	80.0-120	
Sodium	5.00	5.04	101	80.0-120	
Uranium	0.0500	0.0478	95.6	80.0-120	
Vanadium	0.0500	0.0498	99.5	80.0-120	

L1268418-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1268418-15 10/15/20 03:37 • (MS) R3581725-4 10/15/20 03:43 • (MSD) R3581725-5 10/15/20 03:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	9.28	0.0574	0.0579	96.3	97.2	1	75.0-125			0.747	20

Method Blank (MB)

(MB) R3580670-1 10/12/20 17:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.000735	0.00200
Barium	U		0.00778	0.0200
Cadmium	U		0.000478	0.00100
Calcium	U		0.480	1.00
Chromium	U		0.00149	0.00200
Cobalt	U		0.000477	0.00200
Iron	U		0.0489	0.100
Lead	U		0.00249	0.00500
Manganese	U		0.00132	0.00500
Nickel	U		0.000952	0.00200
Potassium	U		0.534	2.00
Selenium	U		0.000657	0.00200
Sodium	U		0.630	2.00
Uranium	U		0.00754	0.0200
Vanadium	U		0.000986	0.00500

Laboratory Control Sample (LCS)

(LCS) R3580670-2 10/12/20 17:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	0.0500	0.0504	101	80.0-120	
Barium	0.0500	0.0504	101	80.0-120	
Cadmium	0.0500	0.0539	108	80.0-120	
Calcium	5.00	5.61	112	80.0-120	
Chromium	0.0500	0.0527	105	80.0-120	
Cobalt	0.0500	0.0523	105	80.0-120	
Iron	5.00	5.09	102	80.0-120	
Lead	0.0500	0.0488	97.6	80.0-120	
Manganese	0.0500	0.0500	100	80.0-120	
Nickel	0.0500	0.0535	107	80.0-120	
Potassium	5.00	4.99	99.9	80.0-120	
Selenium	0.0500	0.0512	102	80.0-120	
Sodium	5.00	5.91	118	80.0-120	
Uranium	0.0500	0.0480	96.0	80.0-120	
Vanadium	0.0500	0.0501	100	80.0-120	

L1271301-60 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-60 10/12/20 17:10 • (MS) R3580670-4 10/12/20 17:17 • (MSD) R3580670-5 10/12/20 17:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	0.0500	0.0170	0.0664	0.0669	98.8	99.9	1	75.0-125			0.813	20
Barium	0.0500	0.0188	0.0695	0.0711	101	105	1	75.0-125			2.25	20
Cadmium	0.0500	U	0.0534	0.0544	107	109	1	75.0-125			1.76	20
Calcium	5.00	336	342	343	133	152	1	75.0-125	V	V	0.267	20
Chromium	0.0500	U	0.0494	0.0499	98.7	99.7	1	75.0-125			1.01	20
Cobalt	0.0500	0.00155	0.0510	0.0518	99.0	100	1	75.0-125			1.40	20
Potassium	5.00	1.90	6.79	6.72	97.9	96.4	1	75.0-125			1.11	20
Iron	5.00	0.294	5.11	5.27	96.3	99.6	1	75.0-125			3.15	20
Lead	0.0500	U	0.0498	0.0545	99.5	109	1	75.0-125			9.05	20
Manganese	0.0500	0.233	0.278	0.268	90.2	69.5	1	75.0-125		V	3.79	20
Nickel	0.0500	0.00368	0.0525	0.0538	97.7	100	1	75.0-125			2.41	20
Selenium	0.0500	0.000944	0.0521	0.0535	102	105	1	75.0-125			2.80	20
Sodium	5.00	333	345	355	246	443	1	75.0-125	V	V	2.81	20
Uranium	0.0500	0.0152	0.0664	0.0699	102	109	1	75.0-125			5.08	20
Vanadium	0.0500	0.00416	0.0527	0.0534	97.1	98.5	1	75.0-125			1.30	20

Method Blank (MB)

(MB) R3582488-1 10/16/20 20:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Calcium	U		0.480	1.00
Potassium	U		0.534	2.00
Sodium	U		0.630	2.00

Laboratory Control Sample (LCS)

(LCS) R3582488-2 10/16/20 20:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Calcium	5.00	5.21	104	80.0-120	
Potassium	5.00	4.97	99.5	80.0-120	
Sodium	5.00	5.11	102	80.0-120	

L1271775-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271775-01 10/16/20 20:13 • (MS) R3582488-4 10/16/20 20:20 • (MSD) R3582488-5 10/16/20 20:23

Analyte	Spike Amount mg/l	Original Result	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Calcium	5.00		175	173	14.8	0.000	1	75.0-125	V	V	1.04	20
Potassium	5.00		11.4	11.3	94.1	93.2	1	75.0-125			0.410	20
Sodium	5.00		50.3	49.6	75.4	62.8	1	75.0-125		V	1.27	20

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Method Blank (MB)

(MB) R3582143-3 10/15/20 19:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582143-2 10/15/20 18:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.78	105	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

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Method Blank (MB)

(MB) R3582255-2 10/16/20 01:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3582255-1 10/16/20 00:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.14	112	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*113*	*78.0-120*	

L1271301-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1271301-16 10/16/20 03:13 • (MS) R3582255-3 10/16/20 08:43 • (MSD) R3582255-4 10/16/20 09:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	0.0364	2.93	3.16	52.6	56.8	1	10.0-160			7.55	22
(S) a,a,a-Trifluorotoluene(FID)					*105*	*104*		*78.0-120*				

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Method Blank (MB)

(MB) R3583072-2 10/16/20 15:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3583072-1 10/16/20 13:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.21	113	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*100*	*78.0-120*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583073-2 10/16/20 15:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*109*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3583073-1 10/16/20 13:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.21	113	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*100*	*78.0-120*	

Method Blank (MB)

(MB) R3583154-2 10/17/20 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*110*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3583154-1 10/17/20 08:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.25	114	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*103*	*78.0-120*	

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Volatile Organic Compounds (GC) by Method 8015D/GRO

L1271301-03

Method Blank (MB)

(MB) R3583313-3 10/19/20 16:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*103*			*78.0-120*

Laboratory Control Sample (LCS)

(LCS) R3583313-2 10/19/20 13:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.48	99.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*101*	*78.0-120*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582662-2 10/17/20 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582662-2 10/17/20 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*100*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.1*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582662-1 10/17/20 01:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0225	90.0	19.0-160	
Benzene	0.00500	0.00489	97.8	70.0-123	
Bromodichloromethane	0.00500	0.00447	89.4	75.0-120	
Bromoform	0.00500	0.00461	92.2	68.0-132	
Bromomethane	0.00500	0.00680	136	10.0-160	
n-Butylbenzene	0.00500	0.00384	76.8	73.0-125	
sec-Butylbenzene	0.00500	0.00421	84.2	75.0-125	
Carbon disulfide	0.00500	0.00492	98.4	61.0-128	
Carbon tetrachloride	0.00500	0.00473	94.6	68.0-126	
Chlorobenzene	0.00500	0.00505	101	80.0-121	
Chlorodibromomethane	0.00500	0.00456	91.2	77.0-125	
Chloroethane	0.00500	0.00635	127	47.0-150	
Chloroform	0.00500	0.00475	95.0	73.0-120	
Chloromethane	0.00500	0.00339	67.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00514	103	80.0-122	
1,1-Dichloroethane	0.00500	0.00435	87.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00485	97.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00506	101	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00481	96.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00492	98.4	73.0-120	
1,2-Dichloropropane	0.00500	0.00415	83.0	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00422	84.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00386	77.2	78.0-124	J4

Laboratory Control Sample (LCS)

(LCS) R3582662-1 10/17/20 01:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00530	106	79.0-123	
2-Hexanone	0.0250	0.0178	71.2	67.0-149	
Isopropylbenzene	0.00500	0.00485	97.0	76.0-127	
p-Isopropyltoluene	0.00500	0.00411	82.2	76.0-125	
2-Butanone (MEK)	0.0250	0.0182	72.8	44.0-160	
Methylene Chloride	0.00500	0.00439	87.8	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0172	68.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00464	92.8	68.0-125	
Naphthalene	0.00500	0.00389	77.8	54.0-135	
n-Propylbenzene	0.00500	0.00385	77.0	77.0-124	
Styrene	0.00500	0.00482	96.4	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00456	91.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00371	74.2	65.0-130	
Tetrachloroethene	0.00500	0.00581	116	72.0-132	
Toluene	0.00500	0.00455	91.0	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00485	97.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00477	95.4	80.0-120	
Trichloroethene	0.00500	0.00580	116	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00392	78.4	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00383	76.6	76.0-122	
Vinyl chloride	0.00500	0.00408	81.6	67.0-131	
Xylenes, Total	0.0150	0.0145	96.7	79.0-123	
o-Xylene	0.00500	0.00496	99.2	80.0-122	
m&p-Xylenes	0.0100	0.00958	95.8	80.0-122	
(S) Toluene-d8			*100*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.6*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*96.9*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3582663-2 10/16/20 17:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

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Method Blank (MB)

(MB) R3582663-2 10/16/20 17:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*101*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582663-1 10/16/20 17:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0251	100	19.0-160	
Benzene	0.00500	0.00525	105	70.0-123	
Bromodichloromethane	0.00500	0.00481	96.2	75.0-120	
Bromoform	0.00500	0.00501	100	68.0-132	
Bromomethane	0.00500	0.00925	185	10.0-160	J4
n-Butylbenzene	0.00500	0.00471	94.2	73.0-125	
sec-Butylbenzene	0.00500	0.00498	99.6	75.0-125	
Carbon disulfide	0.00500	0.00557	111	61.0-128	
Carbon tetrachloride	0.00500	0.00562	112	68.0-126	
Chlorobenzene	0.00500	0.00549	110	80.0-121	
Chlorodibromomethane	0.00500	0.00514	103	77.0-125	
Chloroethane	0.00500	0.00586	117	47.0-150	
Chloroform	0.00500	0.00518	104	73.0-120	
Chloromethane	0.00500	0.00360	72.0	41.0-142	
1,2-Dibromoethane	0.00500	0.00569	114	80.0-122	
1,1-Dichloroethane	0.00500	0.00501	100	70.0-126	
1,2-Dichloroethane	0.00500	0.00542	108	70.0-128	
1,1-Dichloroethene	0.00500	0.00550	110	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00525	105	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00581	116	73.0-120	
1,2-Dichloropropane	0.00500	0.00461	92.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00505	101	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00463	92.6	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3582663-1 10/16/20 17:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00573	115	79.0-123	
2-Hexanone	0.0250	0.0211	84.4	67.0-149	
Isopropylbenzene	0.00500	0.00540	108	76.0-127	
p-Isopropyltoluene	0.00500	0.00487	97.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0209	83.6	44.0-160	
Methylene Chloride	0.00500	0.00503	101	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0192	76.8	68.0-142	
Methyl tert-butyl ether	0.00500	0.00501	100	68.0-125	
Naphthalene	0.00500	0.00418	83.6	54.0-135	
n-Propylbenzene	0.00500	0.00449	89.8	77.0-124	
Styrene	0.00500	0.00529	106	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00533	107	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00445	89.0	65.0-130	
Tetrachloroethene	0.00500	0.00653	131	72.0-132	
Toluene	0.00500	0.00521	104	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00567	113	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00543	109	80.0-120	
Trichloroethene	0.00500	0.00663	133	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00446	89.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00436	87.2	76.0-122	
Vinyl chloride	0.00500	0.00498	99.6	67.0-131	
Xylenes, Total	0.0150	0.0164	109	79.0-123	
o-Xylene	0.00500	0.00565	113	80.0-122	
m&p-Xylenes	0.0100	0.0108	108	80.0-122	
(S) Toluene-d8			*99.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*96.3*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*98.4*	*70.0-130*	

Method Blank (MB)

(MB) R3582658-2 10/16/20 22:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582658-2 10/16/20 22:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*99.9*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582658-1 10/16/20 21:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0373	149	19.0-160	
Benzene	0.00500	0.00534	107	70.0-123	
Bromodichloromethane	0.00500	0.00501	100	75.0-120	
Bromoform	0.00500	0.00631	126	68.0-132	
Bromomethane	0.00500	0.00621	124	10.0-160	
n-Butylbenzene	0.00500	0.00429	85.8	73.0-125	
sec-Butylbenzene	0.00500	0.00420	84.0	75.0-125	
Carbon disulfide	0.00500	0.00572	114	61.0-128	
Carbon tetrachloride	0.00500	0.00598	120	68.0-126	
Chlorobenzene	0.00500	0.00545	109	80.0-121	
Chlorodibromomethane	0.00500	0.00514	103	77.0-125	
Chloroethane	0.00500	0.00589	118	47.0-150	
Chloroform	0.00500	0.00557	111	73.0-120	
Chloromethane	0.00500	0.00544	109	41.0-142	
1,2-Dibromoethane	0.00500	0.00489	97.8	80.0-122	
1,1-Dichloroethane	0.00500	0.00598	120	70.0-126	
1,2-Dichloroethane	0.00500	0.00508	102	70.0-128	
1,1-Dichloroethene	0.00500	0.00575	115	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00598	120	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00585	117	73.0-120	
1,2-Dichloropropane	0.00500	0.00581	116	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00459	91.8	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00482	96.4	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3582658-1 10/16/20 21:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00509	102	79.0-123	
2-Hexanone	0.0250	0.0296	118	67.0-149	
Isopropylbenzene	0.00500	0.00526	105	76.0-127	
p-Isopropyltoluene	0.00500	0.00423	84.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0249	99.6	44.0-160	
Methylene Chloride	0.00500	0.00596	119	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	100	68.0-142	
Methyl tert-butyl ether	0.00500	0.00546	109	68.0-125	
Naphthalene	0.00500	0.00386	77.2	54.0-135	
n-Propylbenzene	0.00500	0.00415	83.0	77.0-124	
Styrene	0.00500	0.00531	106	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00626	125	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00380	76.0	65.0-130	
Tetrachloroethene	0.00500	0.00560	112	72.0-132	
Toluene	0.00500	0.00527	105	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00598	120	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00523	105	80.0-120	
Trichloroethene	0.00500	0.00623	125	78.0-124	J4
1,2,4-Trimethylbenzene	0.00500	0.00433	86.6	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00431	86.2	76.0-122	
Vinyl chloride	0.00500	0.00574	115	67.0-131	
Xylenes, Total	0.0150	0.0160	107	79.0-123	
o-Xylene	0.00500	0.00531	106	80.0-122	
m&p-Xylenes	0.0100	0.0107	107	80.0-122	
(S) Toluene-d8			*101*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*93.1*	*70.0-130*	

Method Blank (MB)

(MB) R3582711-2 10/18/20 03:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	0.000540	J	0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000369	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3582711-2 10/18/20 03:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*108*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3582711-1 10/18/20 02:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0238	95.2	19.0-160	
Benzene	0.00500	0.00517	103	70.0-123	
Bromodichloromethane	0.00500	0.00490	98.0	75.0-120	
Bromoform	0.00500	0.00495	99.0	68.0-132	
Bromomethane	0.00500	0.00303	60.6	10.0-160	
n-Butylbenzene	0.00500	0.00447	89.4	73.0-125	
sec-Butylbenzene	0.00500	0.00449	89.8	75.0-125	
Carbon disulfide	0.00500	0.00429	85.8	61.0-128	
Carbon tetrachloride	0.00500	0.00471	94.2	68.0-126	
Chlorobenzene	0.00500	0.00500	100	80.0-121	
Chlorodibromomethane	0.00500	0.00494	98.8	77.0-125	
Chloroethane	0.00500	0.00500	100	47.0-150	
Chloroform	0.00500	0.00454	90.8	73.0-120	
Chloromethane	0.00500	0.00426	85.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00485	97.0	80.0-122	
1,1-Dichloroethane	0.00500	0.00455	91.0	70.0-126	
1,2-Dichloroethane	0.00500	0.00465	93.0	70.0-128	
1,1-Dichloroethene	0.00500	0.00459	91.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00470	94.0	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00438	87.6	73.0-120	
1,2-Dichloropropane	0.00500	0.00456	91.2	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00426	85.2	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00453	90.6	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3582711-1 10/18/20 02:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00469	93.8	79.0-123	
2-Hexanone	0.0250	0.0255	102	67.0-149	
Isopropylbenzene	0.00500	0.00469	93.8	76.0-127	
p-Isopropyltoluene	0.00500	0.00448	89.6	76.0-125	
2-Butanone (MEK)	0.0250	0.0243	97.2	44.0-160	
Methylene Chloride	0.00500	0.00496	99.2	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0245	98.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00481	96.2	68.0-125	
Naphthalene	0.00500	0.00729	146	54.0-135	J4
n-Propylbenzene	0.00500	0.00422	84.4	77.0-124	
Styrene	0.00500	0.00481	96.2	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00494	98.8	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00435	87.0	65.0-130	
Tetrachloroethene	0.00500	0.00483	96.6	72.0-132	
Toluene	0.00500	0.00468	93.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00450	90.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00504	101	80.0-120	
Trichloroethene	0.00500	0.00481	96.2	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00435	87.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00436	87.2	76.0-122	
Vinyl chloride	0.00500	0.00438	87.6	67.0-131	
Xylenes, Total	0.0150	0.0140	93.3	79.0-123	
o-Xylene	0.00500	0.00470	94.0	80.0-122	
m&p-Xylenes	0.0100	0.00934	93.4	80.0-122	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583066-3 10/17/20 17:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	U		0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000217	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583066-3 10/17/20 17:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*106*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583066-1 10/17/20 16:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0228	91.2	19.0-160	
Benzene	0.00500	0.00454	90.8	70.0-123	
Bromodichloromethane	0.00500	0.00477	95.4	75.0-120	
Bromoform	0.00500	0.00485	97.0	68.0-132	
Bromomethane	0.00500	0.00584	117	10.0-160	
n-Butylbenzene	0.00500	0.00455	91.0	73.0-125	
sec-Butylbenzene	0.00500	0.00443	88.6	75.0-125	
Carbon disulfide	0.00500	0.00407	81.4	61.0-128	
Carbon tetrachloride	0.00500	0.00474	94.8	68.0-126	
Chlorobenzene	0.00500	0.00479	95.8	80.0-121	
Chlorodibromomethane	0.00500	0.00483	96.6	77.0-125	
Chloroethane	0.00500	0.00453	90.6	47.0-150	
Chloroform	0.00500	0.00446	89.2	73.0-120	
Chloromethane	0.00500	0.00349	69.8	41.0-142	
1,2-Dibromoethane	0.00500	0.00468	93.6	80.0-122	
1,1-Dichloroethane	0.00500	0.00432	86.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00446	89.2	70.0-128	
1,1-Dichloroethene	0.00500	0.00473	94.6	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00471	94.2	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00439	87.8	73.0-120	
1,2-Dichloropropane	0.00500	0.00438	87.6	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00437	87.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00454	90.8	78.0-124	

Laboratory Control Sample (LCS)

(LCS) R3583066-1 10/17/20 16:04

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00468	93.6	79.0-123	
2-Hexanone	0.0250	0.0248	99.2	67.0-149	
Isopropylbenzene	0.00500	0.00467	93.4	76.0-127	
p-Isopropyltoluene	0.00500	0.00445	89.0	76.0-125	
2-Butanone (MEK)	0.0250	0.0229	91.6	44.0-160	
Methylene Chloride	0.00500	0.00478	95.6	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0240	96.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00469	93.8	68.0-125	
Naphthalene	0.00500	0.00666	133	54.0-135	
n-Propylbenzene	0.00500	0.00432	86.4	77.0-124	
Styrene	0.00500	0.00480	96.0	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00496	99.2	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00433	86.6	65.0-130	
Tetrachloroethene	0.00500	0.00458	91.6	72.0-132	
Toluene	0.00500	0.00463	92.6	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00463	92.6	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00483	96.6	80.0-120	
Trichloroethene	0.00500	0.00456	91.2	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00431	86.2	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00433	86.6	76.0-122	
Vinyl chloride	0.00500	0.00444	88.8	67.0-131	
Xylenes, Total	0.0150	0.0137	91.3	79.0-123	
o-Xylene	0.00500	0.00478	95.6	80.0-122	
m&p-Xylenes	0.0100	0.00887	88.7	80.0-122	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*105*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3583081-2 10/18/20 01:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
n-Propylbenzene	U		0.0000993	0.00100
(S) Toluene-d8	*114*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583081-1 10/18/20 00:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00473	94.6	70.0-123	
n-Propylbenzene	0.00500	0.00400	80.0	77.0-124	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.4*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*104*	*70.0-130*	

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Method Blank (MB)

(MB) R3583024-2 10/18/20 12:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583024-1 10/18/20 11:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00515	103	70.0-123	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*101*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

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Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3583082-2 10/18/20 01:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	*114*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583082-1 10/18/20 00:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00473	94.6	70.0-123	
(S) Toluene-d8			*108*	*80.0-120*	
(S) 4-Bromofluorobenzene			*95.4*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*104*	*70.0-130*	

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3583389-3 10/19/20 02:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Benzene	0.000128	J	0.0000941	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
Carbon disulfide	0.000262	J	0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
1,2-Dibromoethane	U		0.000126	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100

Method Blank (MB)

(MB) R3583389-3 10/19/20 02:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Trichloroethene	U		0.000190	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
o-Xylene	U		0.000174	0.00100
m&p-Xylenes	U		0.000430	0.00200
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583389-1 10/19/20 01:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.0250	0.0238	95.2	19.0-160	
Benzene	0.00500	0.00520	104	70.0-123	
Bromodichloromethane	0.00500	0.00507	101	75.0-120	
Bromoform	0.00500	0.00469	93.8	68.0-132	
Bromomethane	0.00500	0.00319	63.8	10.0-160	
n-Butylbenzene	0.00500	0.00508	102	73.0-125	
sec-Butylbenzene	0.00500	0.00534	107	75.0-125	
Carbon disulfide	0.00500	0.00504	101	61.0-128	
Carbon tetrachloride	0.00500	0.00541	108	68.0-126	
Chlorobenzene	0.00500	0.00527	105	80.0-121	
Chlorodibromomethane	0.00500	0.00493	98.6	77.0-125	
Chloroethane	0.00500	0.00536	107	47.0-150	
Chloroform	0.00500	0.00488	97.6	73.0-120	
Chloromethane	0.00500	0.00381	76.2	41.0-142	
1,2-Dibromoethane	0.00500	0.00491	98.2	80.0-122	
1,1-Dichloroethane	0.00500	0.00499	99.8	70.0-126	
1,2-Dichloroethane	0.00500	0.00477	95.4	70.0-128	
1,1-Dichloroethene	0.00500	0.00551	110	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00507	101	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00496	99.2	73.0-120	
1,2-Dichloropropane	0.00500	0.00464	92.8	77.0-125	
cis-1,3-Dichloropropene	0.00500	0.00483	96.6	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00467	93.4	78.0-124	

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Laboratory Control Sample (LCS)

(LCS) R3583389-1 10/19/20 01:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ethylbenzene	0.00500	0.00514	103	79.0-123	
2-Hexanone	0.0250	0.0246	98.4	67.0-149	
Isopropylbenzene	0.00500	0.00510	102	76.0-127	
p-Isopropyltoluene	0.00500	0.00502	100	76.0-125	
2-Butanone (MEK)	0.0250	0.0233	93.2	44.0-160	
Methylene Chloride	0.00500	0.00505	101	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0240	96.0	68.0-142	
Methyl tert-butyl ether	0.00500	0.00485	97.0	68.0-125	
Naphthalene	0.00500	0.00505	101	54.0-135	
n-Propylbenzene	0.00500	0.00516	103	77.0-124	
Styrene	0.00500	0.00516	103	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00495	99.0	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00478	95.6	65.0-130	
Tetrachloroethene	0.00500	0.00532	106	72.0-132	
Toluene	0.00500	0.00515	103	79.0-120	
1,1,1-Trichloroethane	0.00500	0.00525	105	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00495	99.0	80.0-120	
Trichloroethene	0.00500	0.00515	103	78.0-124	
1,2,4-Trimethylbenzene	0.00500	0.00490	98.0	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00495	99.0	76.0-122	
Vinyl chloride	0.00500	0.00475	95.0	67.0-131	
Xylenes, Total	0.0150	0.0151	101	79.0-123	
o-Xylene	0.00500	0.00502	100	80.0-122	
m&p-Xylenes	0.0100	0.0101	101	80.0-122	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*103*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

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Method Blank (MB)

(MB) R3583465-2 10/19/20 19:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3583465-1 10/19/20 18:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00495	99.0	70.0-123	
(S) Toluene-d8			*109*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.1*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*113*	*70.0-130*	

Received by OCD: 6/23/2021 4:05:29 PM

Method Blank (MB)

(MB) R3590379-3 11/06/20 13:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*96.5*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3590379-1 11/06/20 12:38 • (LCSD) R3590379-2 11/06/20 12:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00496	0.00459	99.2	91.8	70.0-123			7.75	20
(S) Toluene-d8				*103*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*105*	*105*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*98.8*	*97.8*	*70.0-130*				

Released to Imaging: 11/21/2023 10:16:55 AM

Method Blank (MB)

(MB) R3582056-1 10/15/20 05:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0505	J	0.0247	0.100
(S) o-Terphenyl	*85.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582056-2 10/15/20 06:04 • (LCSD) R3582056-3 10/15/20 06:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.44	1.45	96.0	96.7	50.0-150			0.692	20
(S) o-Terphenyl				*114*	*111*	*31.0-160*				

Method Blank (MB)

(MB) R3581136-1 10/13/20 12:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*109*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581136-2 10/13/20 13:12 • (LCSD) R3581136-3 10/13/20 13:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.53	1.59	102	106	50.0-150			3.85	20
(S) o-Terphenyl				*106*	*115*	*31.0-160*				

Method Blank (MB)

(MB) R3581227-1 10/13/20 21:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*106*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581227-2 10/13/20 21:35 • (LCSD) R3581227-3 10/13/20 22:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.63	1.60	109	107	50.0-150			1.86	20
(S) o-Terphenyl				*109*	*105*	*31.0-160*				

Method Blank (MB)

(MB) R3581676-1 10/14/20 23:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*101*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3581676-2 10/15/20 00:19 • (LCSD) R3581676-3 10/15/20 00:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.58	1.61	105	107	50.0-150			1.88	20
(S) o-Terphenyl				*106*	*104*	*31.0-160*				

Method Blank (MB)

(MB) R3582057-1 10/15/20 04:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0315		0.0247	0.100
(S) o-Terphenyl	*93.0*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3582057-2 10/15/20 05:04 • (LCSD) R3582057-3 10/15/20 05:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.55	1.55	103	103	50.0-150			0.000	20
(S) o-Terphenyl				*117*	*117*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: Julie Speer
Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020
City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:
Client Project # 330538.0000.0000
Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team
Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X
Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Date Results Needed
Quote #

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 10

Pace Analytical
National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

p. 1/19

L# L1271301
J031

Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3 <2	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4 <2	Total Long List Metals 250mlHDPE-HNO3 <2	Cyanide - 250mlHDPEAmb-NaOH >12		Remarks	Sample # (lab only)
~~MW-48~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-130	Grab	GW		10/7/20	855	9	x	x	x	x	x	x	x					-01
~~KWB-4~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
MW-52	Grab	GW		10/7/20	940	10	x	x	x		x	x	x	x	x			-02
MW-109	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x					-03
MW-110	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x					-04
• MW-113	Grab	GW		10/7/20	900	9	x	x	x	x	x	x	x					~~-05~~
• KWB-8	Grab	GW		10/6/20	1250	8	x	x			x	x	x	x	x			~~-06~~
~~MW-133~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-134	Grab	GW		10/6/20	1630	9	x	x	x	x	x	x	x					-07 -05

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Samples returned via: __ UPS ✓ FedEx __ Courier __ ___
Tracking # attached

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: WW 5C Bottles Received: 1.1-2-.9
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 10

Pace Analytical
National Center for Testing & Innovation
p. 2/19

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
RA-4798	Grab	GW		10/6/20	1315	5	x				x	x	x					~~-06~~
RA-4196	Grab	GW		10/6/20	1330	5	x				x	x	x					~~-09~~
KWB-7	Grab	GW		10/6/20	1200	8	x	x			x	x	x	x	x			~~-10~~
MW-135	Grab	GW		10/7/20	1030	9	x	x	x	x	x	x	x					~~-11~~
KWB-11A	Grab	GW		10/6/20	1025	10	x	x	x		x	x	x	x	x			~~-12~~
KWB-11B	Grab	GW		10/6/20	1110	10	x	x	x		x	x	x	x	x			~~-13~~
MW-115	Grab	GW		10/7/20	915	9	x	x	x	x	x	x	x				-06	~~-14~~
MW-114	Grab	GW		10/7/20	1000	9	x	x	x	x	x	x	x				-07	~~-15~~
MW-117	Grab	GW		10/6/20	1420	9	x	x	x	x	x	x	x				-08	TG
MW-118	Grab	GW		10/6/20	1335	9	x	x	x	x	x	x	x				-09	TT

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: Julie Speer
Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020
City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000
Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team
Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Pace Analytical
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Chain of Custody Page 3 of 10
P-3/19

L# L1271301
Table #
Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
MW-119	Grab	GW		10/6/20	920	9	x	x	x	x	x	x	x					~~-10~~
MW-136	Grab	GW		10/6/20	1220	10	x	x	x		x	x	x	x	x			~~-11~~
MW-126A	Grab	GW		10/6/20	1010	9	x	x	x	x	x	x	x					~~-12~~
MW-126B	Grab	GW		10/6/20	1050	9	x	x	x	x	x	x	x					~~-13~~
~~MW-127~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~-14~~
KWB-1A	Grab	GW		10/6/20	1325	8	x	x			x	x	x	x	x		-14	~~-15~~
~~KWB-10R~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-131~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
~~KWB-5~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-111~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					

KO

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____
Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 4 of 10

p.4/19

Pace Analytical
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	EDB 8011	Remarks	Sample # (lab only)
~~KWB-6~~ LNAPL	~~Grab~~	~~GW~~				10	x	x		x	x	x	x			x		
~~MW-112~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
~~MW-132~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-57	Grab	GW		10/6/20	1130	9	x	x	x	x	x	x	x				-15	~~-23~~
KWB-12A	Grab	GW		10/6/20	930	10	x	x	x		x	x	x	x	x		-16	~~-24~~
KWB-12B	Grab	GW		10/6/20	1015	10	x	x	x		x	x	x	x	x		-17	~~-25~~
~~KWB-2R~~ LNAPL	~~Grab~~	~~GW~~				7	x	x		x	x	x	x					
~~MW-58~~ LNAPL	~~Grab~~	~~GW~~				8	x	x			x	x	x	x	x			
MW-104	Grab	GW		10/6/20	1210	9	x	x	x	x	x	x	x				-18	~~-26~~
MW-64	Grab	GW		10/6/20	1305	9	x	x	x	x	x	x	x				-19	~~-27~~

KB

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-1.9 Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

Chain of Custody Page 5 of 10

p.5/19

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
~~MW-65~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-102	Grab	GW		10/6/20	1410	9	x	x	x	x	x	x	x				-20	~~-28~~
~~MW-99~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-66	Grab	GW		10/7/20	925	10	x	x	x		x	x	x	x	x		-21	~~-29~~
MW-28	Grab	GW		↓	1110	10	x	x	x		x	x	x	x	x		-22	~~-30~~
MW-60	Grab	GW		↓	1025	10	x	x	x		x	x	x	x	x		-23	~~-31~~
~~MW-128~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-125	Grab	GW		10/7/20	1050	9	x	x	x	x	x	x	x				-24	~~-32~~
MW-116	Grab	GW		10/7/20	1025	9	x	x	x	x	x	x	x				-25	~~-33~~
MW-101	Grab	GW		10/6/20	900	9	x	x	x	x	x	x	x				-26	~~-34~~

10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1 / 2.9 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
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City/State Collected: Artesia, NM

Phone: 512-684-3170
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Client Project # 330538.0000.0000
Lab Project # TRCATX-REST

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Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726

Collected by (signature): Scott Ude
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___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 6 of 10
p. 6119

Pace Analytical
National Center for Testing & Innovation
12065 Lebanon Rd
Mount Juliet, TN 37122
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L# L1271301
Table #
Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions: TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-105	Grab	GW		10/6/20	1515	9	x	x	x	x	x	x	x				SW-27	~~35~~
MW-61	Grab	GW		10/6/20	1335	11	x	x	x	x	x	x	x			x	-28	~~36~~
MW-62	Grab	GW		10/6/20	1535	11	x	x	x	x	x	x	x				-29	~~37~~
~~MW-137~~ LNAPL	~~Grab~~	GW				12	x	x	x		x	x	x	x	x	x		
~~MW-138~~ LNAPL	~~Grab~~	~~GW~~				12	x	x	x		x	x	x	x	x	x		
MW-23	Grab	GW		10/6/20	1705	9	x	x	x	x	x	x	x				-30	~~38~~
MW-39	Grab	GW		10/6/20	1010	9	x	x	x	x	x	x	x				-31	~~39~~
MW-98	Grab	GW		10/6/20	1105	9	x	x	x	x	x	x	x				-32	~~40~~
MW-29	Grab	GW		10/7/20	925	9	x	x	x	x	x	x	x				~~33~~	~~41~~
MW-106	Grab	GW		10/6/20	1200	9	x	x	x	x	x	x	x				-33	~~34~~ 42

10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude
Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day
Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 7 of 10 p. 7/19

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National Center for Testing & Innovation

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX
Template: T140424
Prelogin: P799490
TSR: 526
PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-50	Grab	GW		10/6/20	1125	7	x	x		x	x	x	x				-34	~~-43~~
~~MW-97~~ Lost due to construction	~~Grab~~	~~GW~~				11	x	x	x	x	x	x	x			x	unable to locate; construction, graded w/ extra soil/gravel	
~~MW-92~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
~~MW-91~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					
MW-90	Grab	GW		10/6/20	1245	9	x	x	x	x	x	x	x				-35	~~-44~~
MW-96	Grab	GW		10/6/20	1450	9	x	x	x	x	x	x	x				-36	~~-45~~
~~MW-94~~ LNAPL	~~Grab~~	~~GW~~				9	x	x	x	x	x	x	x					~~-46~~ KC
~~MW-87~~ LNAPL	~~Grab~~	~~GW~~				10	x	x	x		x	x	x	x	x			
• DUP-REST-01	Grab	GW		10/7/20	800	9	x	x	x	x	x	x	x					~~-46~~
DUP-REST-02	Grab	GW		10/6/20	1100	9	x	x	x	x	x	x	x				-37	~~-47~~

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-1.9 °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 8 of 10

P. 8/19

Pace Analytical®

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140424

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH		Remarks	Sample # (lab only)
DUP-REST-03	Grab	GW		10/6/20	1200	9	x	x	x	x	x	x	x				-38	~~48~~
DUP-REST-04	Grab	GW		10/7/20	800	10	x	x	x		x	x	x	x	x		-39	~~49~~
DUP-REST-05	Grab	GW		10/6/20	1200	10	x	x	x		x	x	x	x	x		-40	~~50~~
EB-REST-01	Grab	GW		10/7/20	920	9	x	x	x	x	x	x	x					~~51~~
EB-REST-02	Grab	GW		10/6/20	1220	9	x	x	x	x	x	x	x				-41	~~52~~
EB-REST-03	Grab	GW		10/6/20	1650	9	x	x	x	x	x	x	x				-42	~~53~~
EB-REST-04	Grab	GW		10/7/20	1045	10	x	x	x		x	x	x	x	x		-43	~~54~~
EB-REST-05	Grab	GW		10/6/20	1035	10	x	x	x		x	x	x	x	x		-44	~~55~~
TRIP BLANK-REST-01	Grab	GW		10/6/20	—	1	x											-45
TRIP BLANK-REST-02	Grab	GW		10/6/20	—	1	x											-46

40

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Scott Ude	10/7/20	1400			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900	Hold: Condition: NCF / OK

TRC Solutions - Austin, TX
505 E. Huntland Dr, Ste 250
Austin, TX 78752

Billing Information:
Accounts Payable
21 Griffin Road North
Windsor, CT 06095
apinvoiceapproval@trcsolutions.com

Pres Chk

Report to: Julie Speer

Email To: jspeer@trccompanies.com

Project Description: REST Fall 2020

City/State Collected: Artesia, NM

Phone: 512-684-3170
Fax:

Client Project # 330538.0000.0000

Lab Project # TRCATX-REST

Collected by (print): Scott Ude/HMI Team

Site/Facility ID # REST (Navajo - Artesia)

P.O. # 150726

Collected by (signature): Scott Ude

Immediately Packed on Ice N ___ Y x

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

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Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX

Template: T140422

Prelogin: P799490

TSR: 526

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions, TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
TRIP BLANK-REST-03	Grab	GW		10/7/20	—	1	x											-47
TRIP BLANK-REST-04	Grab	GW		10/6/20	—	1	x											-48

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS ✓ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Scott Ude	10/7/20	1400		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.1-2.9 °C Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/8/20 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

TRC Solutions - Austin, TX 505 E. Huntland Dr, Ste 250 Austin, TX 78752	Billing Information: Accounts Payable 21 Griffin Road North Windsor, CT 06095 apinvoiceapproval@trcsolutions.com
Report to: Julie Speer	Email To: jspeer@trccompanies.com
Project Description: REST Fall 2020	City/State Collected: Artesia, NM
Phone: 512-684-3170 Fax:	Client Project # 330538.0000.0000
Lab Project # TRCATX-REST	
Collected by (print): Scott Ude/HMI Team	Site/Facility ID # REST (Navajo - Artesia)
P.O. # 150726	Quote #
Collected by (signature): Scott Ude Immediately Packed on Ice N ___ Y _x_	Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Date Results Needed	

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 10 of 10 p. 10/19

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Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1271301

Table #

Acctnum: TRCATX
Template: T140422
Prelogin: P799490
TSR: 526
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC - 40mlAmb HCl	DRO - 40mlAmb-HCl-BT	GRO - 40mlAmb HCl	Total Short List Metals 250mlHDPE-HNO3	Cations (from "total metals" bottle)	Anions. TDS - 250mlHDPE-NoPres	NO2NO3 - 250mlHDPE-H2SO4	Total Long List Metals 250mlHDPE-HNO3	Cyanide - 250mlHDPEAmb-NaOH	SVOCs - 8270	Remarks	Sample # (lab only)
MW-43	Grab	GW		10/6/20	1510	10	x	x	x		x	x	x	x	x			-49
MW-62R	Grab	GW		10/6/20	1620	9	x	x	x	x	x	x	x					-50
MW-137A LNAPL	Grab	GW				12	x	x	x		x	x	x	x	x	x		
MW-138A LNAPL	Grab	GW				12	x	x	x		x	x	x	x	x	x		
MW-139	Grab	GW		10/6/20	1055	9	x	x	x	x	x	x	x					-51
RW-2 LNAPL	Grab	GW														X		
	Grab	GW																
	Grab	GW																
	Grab	GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water

Remarks: Samples returned via FedEx

pH ______ Temp ______
Flow ______ Other ______

Sample Receipt Checklist
COC Seal Present/Intact: _NP _Y _N
COC Signed/Accurate: _Y _N
Bottles arrive intact: _Y _N
Correct bottles used: _Y _N

Relinquished by: (Signature) Scott Ude Date: 10/7/20 Time: 1400

Received by: (Signature) [signature] 10/8/20 0900 1.1-.2=.9 [initials]

)9159 8784 5733 1.5
-5810 1.3
-5939 1.2
-5744 1.8
-5940 4.1
-8206 1.4
-5825 0.9
-5803 1.1
-5814 .4
-5880 1.2
-5799 1.3
-9863 3.0
2.4

)9186 2502 9749

5906 4.5
5722 1.6
5891 0.7 C
~~9[illegible~~ 7986 0.9 C
9874 1.0 C

TREATX
for 10/8

10.1.21

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Released to Imaging: 11/21/2023 10:16:55 AM
Received by OCD: 6/23/2021 4:05:29 PM

Katie Ingram

Pace Analytical®
National Center for Testing & Innovation

Login #: L1271301	Client: TRCATX	Date: 10/08/20	Evaluated by: Myra "Katie" Ingram

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Did not receive a metals container for RA-4798 and RA-4196.

Client informed by:		Call		Email		Voice Mail		Date: 10/12/20	Time: 22:37
TSR Initials: CM	Client Contact:								

Login Instructions:

Pour off 125mL from the 250ml and preserve for CAG, KG, NAG.

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Appendix C, Table C.1 - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	TPH	
				Analyte:	GRO	DRO
				Units:	mg/L	mg/L
				CGWSL:	0.0101	0.0858
				CGWSL Source:	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
Cross-Gradient	KWB-13	Apr-17			0.0370 J	
	KWB-13	Apr-18			0.0567 J	
	KWB-13	Apr-19			<0.0247	
	KWB-13	Jun-20			0.0396 J	
	NP-5	Apr-13			<0.0530	
	NP-5	Apr-15			0.0387 J	
	NP-5	Apr-17			<0.0247	
	NP-5	Apr-19			<0.0247	
	RA-3156	Apr-17				
	RA-3156	Apr-18				
	RA-3156	Apr-19				
	RA-3156	Jun-20				
	MW-136	Apr-18		<0.0314	0.0596 J	
	MW-136	Oct-18		<0.0314	0.0676 J	
	MW-136	Apr-19		<0.0314	0.0741 J	
	MW-136	Oct-19		**0.0731 JB**	0.0254 J	
	MW-136	Jun-20		**0.326 V3**	**0.0924 J**	
	MW-136	Oct-20		**0.0320 J**	**0.0873 JB**	
Evaporation Ponds	MW-1R	Apr-17				**0.0583 J**
	MW-1R	Apr-18				**0.0624 J**
	MW-1R	Apr-19				**0.0756 J**
	MW-1R	Jun-20				**<0.0247**
	MW-2A	Apr-18		<0.0314		**0.132**
	MW-2A	Oct-18		<0.0314		**0.175**
	MW-2A	Apr-19		<0.0314		**0.153**
	MW-2A	Oct-19		**0.0798 JB**		**0.0585 J**
	MW-2A	Jun-20		**0.0484 J**		**<0.0247**
	MW-2A	Oct-20		<0.0314		**0.153**
	MW-3	Apr-18		**0.245**		**5.43**
	MW-3	Apr-18	FD	**0.237**		**6.52**
	MW-3	Oct-18		**0.289**		**6.25**
	MW-3	Oct-18	FD	**0.381**		**5.62**
	MW-3	Apr-19		**0.0731 J**		**3.93**
	MW-3	Apr-19	FD	**0.192 B**		**3.77**
	MW-3	Oct-19		**0.659**		**8.93**
	MW-3	Oct-19	FD	**0.536 Q**		**9.30**
	MW-3	Jun-20		<1.57		**7.01**
	MW-3	Jun-20	FD	**0.691**		**7.98**
	MW-3	Oct-20		**4.06 JB**		**6.84**
	MW-3	Oct-20	FD	**0.491**		**7.08**
	MW-4A	Apr-18		**0.448**		**5.10**
	MW-4A	Oct-18		**0.803**		**5.23**
	MW-4A	Apr-19		**0.669**		**6.82**
	MW-4A	Oct-19		**0.417 B**		**4.88**
	MW-4A	Jun-20		**0.377**		**4.07**
	MW-4A	Oct-20		**0.586**		**4.93**
	MW-4B	Apr-13		**0.102**		**0.360**
	MW-4B	Apr-15		**0.119**		**1.31**
	MW-4B	Apr-17		**0.318**		**1.21**
	MW-4B	Apr-19		**0.181**		**1.13**
	MW-5A	Apr-18		**1.95**		**6.89**
	MW-5A	Oct-18		**3.29**		**7.51**
	MW-5A	Apr-19		**2.25**		**4.80**
	MW-5A	Oct-19		**1.72**		**4.01**
	MW-5A	Jun-20		**0.959**		**7.01**
	MW-5A	Oct-20		**1.75**		**6.72**
	MW-5B	Apr-13		**1.78**		**7.10**
	MW-5B	Apr-15		**1.14**		**11.0**
	MW-5B	Apr-17		**2.08**		**11.2**
	MW-5B	Apr-19		**1.82**		**11.5**
	MW-5C	Apr-13		**0.0652**		**0.220**
	MW-5C	Apr-15		<0.0310		**0.580**
	MW-5C	Apr-17		<0.0314		**0.500**
	MW-5C	Apr-19		**0.0423 JB**		**0.442**
	MW-6A	Apr-17		**0.335**		**14.2**
	MW-6A	Apr-18		**0.406**		**9.27**
	MW-6A	Apr-19		**0.315**		**11.0**
	MW-6A	Jun-20		**0.192**		**4.86**
	MW-6B	Mar-13		<0.0500		**<0.0530**
	MW-6B	Mar-13	FD	<0.0500		**<0.0540**
	MW-6B	Apr-15		<0.0310		**0.386**
	MW-6B	Apr-17		<0.0314		**0.276**
	MW-6B	Apr-19		**0.0356 J**		**0.427**
	MW-7A	Apr-18		**0.378**		**1.26**
	MW-7A	Apr-18	FD	**0.379**		**1.28**
	MW-7A	Oct-18		**0.755**		**1.29**
	MW-7A	Oct-18	FD	**0.649**		**1.13**
	MW-7A	Apr-19		**0.605**		**1.33**
	MW-7A	Apr-19	FD	**0.638**		**1.13**
	MW-7A	Oct-19		**0.325**		**1.09**
	MW-7A	Oct-19	FD	**0.317 Q**		**1.06**
	MW-7A	Jun-20		**0.240**		**0.928**
	MW-7A	Jun-20	FD	**0.337**		**0.915**
	MW-7A	Oct-20		**0.351 B**		**0.940**
	MW-7A	Oct-20	FD	**0.379**		**0.886**
	MW-7B	Apr-13		<0.0500		**<0.0530**
	MW-7B	Apr-15		<0.0310		**0.120**
	MW-7B	Apr-17		<0.0314		**0.0845 J**
	MW-7B	Apr-19		**0.0647 JB**		**0.0676 J**
	MW-10	Apr-18		**0.734**		**2.28**
	MW-10	Oct-18		**0.915**		**2.03**
	MW-10	Apr-19		**0.816**		**1.85**
	MW-10	Oct-19		**1.06**		**1.89**
	MW-10	Jun-20		**0.931**		**1.57**
	MW-10	Oct-20		**0.640**		**1.76**
	MW-11A	Apr-18		<0.0314		**<0.0247**
	MW-11A	Oct-18				
	MW-11A	Apr-19		**0.0422 JB**		**<0.0247**
	MW-11A	Oct-19				
	MW-11A	Jun-20		<0.0314		**<0.0247**
	MW-11A	Oct-20				
	MW-11B	Mar-13		<0.0500		**<0.0520**
	MW-11B	Apr-15		<0.0310		**<0.0250**
	MW-11B	Apr-17		<0.0314		**<0.0247**
	MW-11B	Apr-19		**0.0345 JB**		**<0.0247**

				Analyte Group:	TPH		
				Analyte:	GRO	DRO	DRO - EP
				Units:	mg/L	mg/L	mg/L
				CGWSL:	0.0101	0.0858	0.0167
				CGWSL Source:	NMED TPH	NMED TPH	NMED TPH
Area	Well ID	Date	Dup				
Evaporation Ponds	MW-15	Apr-17		**0.0940 J**			**0.251**
	MW-15	Apr-18		**0.328**			**0.479**
	MW-15	Apr-19		**0.136 B**			**0.475**
	MW-15	Jun-20		<0.0314			**<0.0247**
	MW-18A	Apr-18					**0.349**
	MW-18A	Oct-18					**0.329**
	MW-18A	Apr-19					**0.652**
	MW-18A	Oct-19					**0.410**
	MW-18A	Jun-20					**0.408**
	MW-18A	Oct-20					**0.373 B**
	MW-18B	Apr-13		**0.0995**			**<0.0520**
	MW-18B	Apr-15		<0.0310			**0.280**
	MW-18B	Apr-17		**0.0932 J**			**0.287**
	MW-18B	Apr-19		**0.105 B**			**0.230**
	MW-22A	Apr-18		**2.50**			**4.86**
	MW-22A	Apr-18	FD	**3.30**			**5.22**
	MW-22A	Oct-18		**3.61**			**5.13**
	MW-22A	Oct-18	FD	**4.46**			**4.89**
	MW-22A	Apr-19		**2.75**			**4.55**
	MW-22A	Apr-19	FD	**3.22**			**4.41**
	MW-22A	Oct-19		**0.599 B**			**1.54**
	MW-22A	Oct-19	FD	**0.612 B**			**1.54**
	MW-22A	Jun-20		**2.73**			**2.91**
	MW-22A	Jun-20	FD	**2.10**			**2.72**
	MW-22A	Oct-20		**1.68**			**3.45**
	MW-22A	Oct-20	FD	**2.13**			**3.13**
	MW-22B	Apr-13		**1.99**			**3.00**
	MW-22B	Apr-15		**2.34**			**5.60**
	MW-22B	Apr-17		**1.76**			**5.25**
	MW-22B	Apr-19		**2.58**			**4.77**
	MW-70	Apr-18		**1.97**			**0.749**
	MW-70	Oct-18		**2.34**			**0.666**
	MW-70	Apr-19		**1.92**			**0.688**
	MW-70	Oct-19		**1.50**			**0.861**
	MW-70	Jun-20		**1.29**			**0.833**
	MW-70	Oct-20		**2.28**			**0.805**
	MW-72	Apr-17		**0.118**			**1.03**
	MW-72	Apr-18		**0.0713 J**			**0.555**
	MW-72	Apr-19		**0.0396 J**			**0.497**
	MW-72	Jun-20		**0.0544 J**			**0.303**
	MW-73	Apr-17		**0.367**			**3.68**
	MW-73	Apr-18		**0.575**			**2.85**
	MW-73	Apr-19		**0.0435 J**			**2.56**
	MW-73	Jun-20		**0.408**			**2.86**
	MW-74	Apr-18		**1.18**			**14.1**
	MW-74	Oct-18		**0.889**			**35.3**
	MW-74	Apr-19		**0.674**			**39.4**
	MW-74	Oct-19		**1.66**			**23.5**
	MW-74	Jun-20		**0.490**			**21.9**
	MW-74	Oct-20		**1.64**			**15.6**
	MW-75	Apr-18		**1.41**			**9.88**
	MW-75	Oct-18		**3.31**			**14.4**
	MW-75	Apr-19		**1.64**			**12.0**
	MW-75	Oct-19		**3.01**			**15.4**
	MW-75	Jun-20		**2.44 J**			**12.2**
	MW-75	Oct-20		**3.45**			**15.1**
	MW-76	Apr-18		**1.52**			**15.1**
	MW-76	Oct-18		**1.69**			**29.2**
	MW-76	Apr-19		**1.67**			**25.3**
	MW-76	Oct-19		**1.70**			**30.1**
	MW-76	Jun-20		**1.89**			**20.8**
	MW-76	Oct-20		**1.11**			**16.4**
	MW-77	Apr-17		**1.11**			**57.5**
	MW-77	Apr-18		**1.15**			**54.4**
	MW-77	Apr-19		**1.04**			**72.5**
	MW-77	Jun-20		**2.88 J**			**53.1**
	MW-78	Apr-17		<0.314			**59.1**
	MW-78	Apr-18		<0.314			**26.4**
	MW-78	Apr-19		<0.314			**28.6**
	MW-78	Jun-20		<1.57			**38.5**
	MW-79	Apr-18		**0.0414 J**			**0.389**
	MW-79	Oct-18		**0.0571 J**			**0.533**
	MW-79	Apr-19		<0.0314			**0.584**
	MW-79	Oct-19		**0.0662 JB**			**0.200**
	MW-79	Jun-20		**0.0534 J**			**0.0762 J**
	MW-79	Oct-20		**0.0582 J**			**0.333**
	MW-80	Apr-17		<0.0314			**0.680**
	MW-80	Apr-18		<0.0314			**0.150**
	MW-80	Apr-19		<0.0314			**0.210**
	MW-80	Jun-20		<0.0314			**<0.0247**
	MW-81	Apr-17		<0.0314			**4.84**
	MW-81	Apr-18		<0.0314			**0.922**
	MW-81	Apr-19		<0.0314			**1.42**
	MW-81	Jun-20		**0.0978 J**			**0.269**
	MW-82	Apr-17		**0.660**			**6.40**
	MW-82	Apr-18		**0.432**			**3.03**
	MW-82	Apr-19		**0.0619 J**			**5.49**
	MW-82	Jun-20		**0.689**			**2.58**
	MW-83	Apr-18		**1.18**			**7.92**
	MW-83	Oct-18		**0.597**			**19.5**
	MW-83	Apr-19		**0.339**			**35.2**
	MW-83	Oct-19		**0.996 B**			**19.1**
	MW-83	Jun-20		**0.843**			**8.93**
	MW-83	Oct-20		**1.17**			**10.2**
	MW-84	Apr-18		**0.765**			**22.3**
	MW-84	Oct-18		**1.21**			**41.0**
	MW-84	Apr-19		**0.453**			**48.1**
	MW-84	Oct-19		**1.45**			**34.8**
	MW-84	Jun-20		**1.45**			**58.9**
	MW-84	Oct-20		<3.14			**59.2**
	MW-86	Jun-20		**1.77 J**			**93.9**
	MW-86	Oct-20		<6.28			**80.2**
	MW-87	Apr-18		<0.0314			**0.288**
	MW-87	Oct-18		**0.0326 J**			**0.222**
	MW-87	Apr-19		**0.0422 JB**			**0.364**
	MW-87	Oct-19		**0.0950 JB**			**0.247**
	MW-87	Jun-20		<0.0314			**0.260**
	MW-87	Oct-20		**0.0469 JB**			**0.270 B**

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Appendix C, Table C.1 - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	TPH	
				Analyte:	GRO	DRO
				Units:	mg/L	mg/L
				CGWSL:	0.0101	0.0858
				CGWSL Source:	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
Evaporation Ponds	MW-88	Apr-18		0.0540 J		0.508
	MW-88	Oct-18		0.0479 J		0.415
	MW-88	Apr-19		<0.0314		0.359
	MW-88	Oct-19		0.120 B		0.325
	MW-88	Jun-20		0.0434 J		0.317
	MW-88	Oct-20		0.0806 JB		0.405
	MW-120	Apr-18		0.124		0.540
	MW-120	Oct-18		0.133		0.664
	MW-120	Apr-19		0.102		0.554
	MW-120	Oct-19		0.611 B		0.463
	MW-120	Jun-20		0.0458 J		0.262
	MW-120	Oct-20		<0.0314		0.402
	MW-121	Apr-18		<0.0314		0.395
	MW-121	Oct-18		<0.0314		0.473
	MW-121	Apr-19		<0.0314		0.418
	MW-121	Oct-19		0.0537 JB		0.310
	MW-121	Jun-20		<0.0314		0.204
	MW-121	Oct-20		<0.0314		0.268
	MW-122	Apr-18		<0.0314		0.211
	MW-122	Oct-18		<0.0314		0.188
	MW-122	Apr-19		<0.0314		0.338
	MW-122	Oct-19		0.233 JB		0.111
	MW-122	Jun-20		<1.57		0.0398 J
	MW-122	Oct-20		<1.57		0.122
	MW-123	Apr-18		1.35		3.09
	MW-123	Oct-18		2.04		2.51
	MW-123	Apr-19		1.63		2.63
	MW-123	Oct-19		1.58		2.36
	MW-123	Jun-20		2.03		2.01
	MW-123	Oct-20		1.30		2.29
	MW-124	Apr-18		<0.0314		0.0328 J
	MW-124	Oct-18		<0.0314		<0.0247
	MW-124	Apr-19		0.0422 JB		0.0404 J
	MW-124	Oct-19		<0.0314 Q		0.0611 J
	MW-124	Jun-20		<0.0314		<0.0247
	MW-124	Oct-20		<0.0314		0.0406 JB
	OCD-1R	Apr-18		<0.0314		0.187
	OCD-1R	Oct-18		<0.0314		0.141
	OCD-1R	Apr-19		<0.0314		0.143
	OCD-1R	Oct-19		0.0869 JB		0.181
	OCD-1R	Jun-20		<0.0314		0.110
	OCD-1R	Oct-20		0.0461 JB		0.117
	OCD-2A	Apr-18		<0.0314		0.0703 J
	OCD-2A	Oct-18		<0.0314		0.0442 J
	OCD-2A	Apr-19		<0.0314		0.0563 J
	OCD-2A	Oct-19		0.0765 JB		0.0255 J
	OCD-2A	Jun-20		<0.0314		<0.0247
	OCD-2A	Oct-20		0.0374 JB		0.0650 J
	OCD-3	Apr-18		<0.0314		0.0510 J
	OCD-3	Oct-18		<0.0314		0.0262 J
	OCD-3	Apr-19		<0.0314		0.0267 J
	OCD-3	Oct-19		0.0771 JB		<0.0247
	OCD-3	Jun-20		<0.0314		<0.0247
	OCD-3	Oct-20		0.0381 JB		0.0499 J
	OCD-4	Apr-18		<0.0314		0.0255 J
	OCD-4	Oct-18		<0.0314		<0.0247
	OCD-4	Apr-19		<0.0314		<0.0247
	OCD-4	Oct-19		0.0736 JB		<0.0247
	OCD-4	Jun-20		<0.0314		<0.0247
	OCD-4	Oct-20		0.0326 JB		0.0404 J
	OCD-5	Apr-18		0.194		0.249
	OCD-5	Oct-18		0.312		0.259
	OCD-5	Apr-19		0.179 B		0.233
	OCD-5	Oct-19		0.912		0.954
	OCD-5	Jun-20		1.09		0.773
	OCD-5	Oct-20		0.724		0.917
	OCD-6	Apr-18		0.218		0.585
	OCD-6	Oct-18		0.293		0.651
	OCD-6	Apr-19		0.136		0.600
	OCD-6	Oct-19		0.145 B		0.390
	OCD-6	Jun-20		0.134		0.517
	OCD-6	Oct-20		0.159		0.622
	OCD-7AR	Apr-18		0.808		3.30
	OCD-7AR	Oct-18		1.32		3.89
	OCD-7AR	Apr-19		0.360		4.00
	OCD-7AR	Oct-19		1.14		3.46
	OCD-7AR	Jun-20		0.637		3.21
	OCD-7AR	Oct-20		0.878		3.45
	OCD-7B	Mar-13		<0.0500		<0.0520
	OCD-7B	Apr-15		<0.0310		0.120
	OCD-7B	Apr-17		<0.0314		0.0746 J
	OCD-7B	Apr-19		<0.0314		0.0638 J
	OCD-8A	Apr-18		0.861		3.15
	OCD-8A	Oct-18		1.39		2.95
	OCD-8A	Apr-19		1.36		3.75
	OCD-8A	Oct-19		0.128 B		0.648
	OCD-8A	Jun-20		0.419		2.19
	OCD-8A	Oct-20		0.644		2.17
	OCD-8B	Apr-13		0.298		0.890
	OCD-8B	Apr-15		<0.0310		0.840
	OCD-8B	Apr-17		<0.0314		0.585
	OCD-8B	Apr-19		0.0648 JB		0.612
Field East of Refinery	KWB-1A	Apr-18			0.0900 J	
	KWB-1A	Oct-18			0.0970 J	
	KWB-1A	Apr-19			0.0541 J	
	KWB-1A	Oct-19			0.0614 J	
	KWB-1A	Jun-20			0.123	
	KWB-1A	Oct-20			0.0960 JB	
	KWB-1C	Apr-13			<0.0440	
	KWB-1C	Apr-15			0.113	
	KWB-1C	Apr-17			0.140	
	KWB-1C	Apr-19			0.0921 J	
	KWB-7	Oct-17			1.69	
	KWB-7	Oct-18			0.444	
	KWB-7	Jun-20			7.29	
	KWB-7	Oct-20			1.05	

				Analyte Group:	TPH		
				Analyte:	GRO	DRO	DRO - EP
				Units:	mg/L	mg/L	mg/L
				CGWSL:	0.0101	0.0858	0.0167
				CGWSL Source:	NMED TPH	NMED TPH	NMED TPH
Area	Well ID	Date	Dup				
Field East of Refinery	KWB-8	Oct-16				3.02	
	KWB-8	Apr-17				3.41	
	KWB-9	Oct-17				3.30	
	KWB-10	Oct-20				6.80	
	KWB-10R	Apr-17				4.01	
	KWB-10R	Oct-17				5.18	
	KWB-10R	Apr-18				3.23	
	KWB-10R	Oct-18				3.35	
	KWB-11A	Apr-18			0.287	0.398	
	KWB-11A	Oct-18			0.369	1.20	
	KWB-11A	Apr-19			0.149	0.787	
	KWB-11A	Jun-20			0.444	2.28	
	KWB-11A	Oct-20			0.0992 J	0.376	
	KWB-11B	Apr-18			<0.0314	0.0406 J	
	KWB-11B	Oct-18			<0.0314	0.0382 J	
	KWB-11B	Apr-19			<0.0314	0.0418 J	
	KWB-11B	Oct-19			0.0747 JB	<0.0247	
	KWB-11B	Jun-20			<0.0314	0.0514 J	
	KWB-11B	Oct-20			<0.0314	0.0956 J	
	KWB-12A	Oct-18			<0.0314	0.132	
	KWB-12A	Oct-19			0.0748 JB	<0.0247	
	KWB-12A	Jun-20			<0.0314	0.0477 J	
	KWB-12A	Oct-20			0.0364 J	<0.0247	
	KWB-12B	Apr-18			<0.0314	0.0354 JB	
	KWB-12B	Apr-18	FD		<0.0314	<0.0247	
	KWB-12B	Oct-18			<0.0314	0.0425 J	
	KWB-12B	Oct-18	FD		<0.0314	0.0643 J	
	KWB-12B	Apr-19			<0.0314	<0.0247	
	KWB-12B	Apr-19	FD		0.0499 JB	<0.0247	
	KWB-12B	Oct-19			0.0739 JB	<0.0247	
	KWB-12B	Oct-19	FD		0.0768 JB	0.133	
	KWB-12B	Jun-20			<0.0314	0.0305 J	
	KWB-12B	Jun-20	FD		0.0359 JB	0.0415 J	
	KWB-12B	Oct-20			0.0358 J	<0.0247	
	KWB-12B	Oct-20	FD		<0.0314	0.0684 J	
	KWB-P4	Apr-13				<0.0520	
	KWB-P4	Apr-15				0.0820 J	
	KWB-P4	Apr-17				0.0526 J	
	KWB-P4	Apr-19				0.0361 J	
	MW-57	Apr-18			<0.0314	0.103 B	
	MW-57	Oct-18			<0.0314	0.0417 J	
	MW-57	Apr-19			<0.0314	0.139 J	
	MW-57	Oct-19			0.0894 JB	<0.0247	
	MW-57	Jun-20			<0.0314	0.0661 J	
	MW-57	Oct-20			0.0579 J	0.0475 JB	
	MW-58	Oct-17				9.77	
	MW-58	Apr-18				5.73	
	MW-58	Oct-18				4.86	
	MW-58	Oct-19				12.1	
	MW-111	Apr-18			1.69	1.52	
	MW-111	Oct-18			1.36	2.63	
	MW-111	Apr-19			1.88	1.54	
	MW-111	Oct-19			1.37	1.80	
	MW-111	Jun-20			3.86	1.77	
	MW-111	Jun-20			3.86	1.77	
	MW-112	Nov-14			28.0	2.20	
	MW-113	Apr-18			0.683	0.142 B	
	MW-113	Apr-18	FD		0.756	0.174	
	MW-113	Oct-18			0.285	0.100 J	
	MW-113	Oct-18	FD		0.259	0.215	
	MW-113	Apr-19			1.91	0.0450 J	
	MW-113	Apr-19	FD		1.83	0.113	
	MW-113	Oct-19			4.54	2.35	
	MW-113	Oct-19	FD		4.37	2.53	
	MW-113	Jun-20			1.30	0.226	
	MW-113	Jun-20	FD		0.798 V3	0.158	
	MW-113	Oct-20			3.18	0.784	
	MW-113	Oct-20	FD		3.30	0.814	
	MW-125	Apr-18			<0.0314	0.0475 J	
	MW-125	Oct-18			<0.0314	0.211	
	MW-125	Apr-19			<0.0314	0.0670 J	
	MW-125	Oct-19			0.0827 JB	0.101	
	MW-125	Jun-20			<0.0314	0.0700 J	
	MW-125	Oct-20			0.0382 J	0.0942 JB	
	MW-126A	Apr-18			0.0634 J	0.390	
	MW-126A	Oct-18			0.182	0.723	
	MW-126A	Apr-19			0.124 B	0.370	
	MW-126A	Oct-19			0.903	0.583	
	MW-126A	Jun-20			0.0319 J	0.461	
	MW-126A	Oct-20			0.0669 J	0.451 B	
	MW-126B	Apr-18			<0.0314	0.244	
	MW-126B	Oct-18			<0.0314	0.298	
	MW-126B	Apr-19			0.0325 JB	0.232	
	MW-126B	Oct-19			0.0766 JB	0.243	
	MW-126B	Jun-20			<0.0314	0.461	
	MW-126B	Oct-20			0.0343 J	0.312 B	
	MW-127	Oct-17			1.68	1.41	
	MW-127	Apr-18			5.15	1.06	
	MW-127	Oct-18			3.13	1.30	
	MW-127	Apr-19			5.94	1.11	
	MW-127	Apr-19			5.94	1.11	
	MW-128	Oct-17			1.14	2.37	
	MW-128	Apr-18			0.932	1.58	
	MW-128	Oct-18			2.76	2.04	
	MW-128	Apr-19			3.13	1.81	
	MW-128	Apr-19			3.13	1.81	
	MW-129	Apr-16			2.70	1.68	
	MW-129	Oct-16			2.17	1.68	
	MW-129	Apr-17			1.79	2.13	
	MW-129	Apr-18			4.33	1.40	
	MW-130	Apr-18			0.0327 J	0.756 B	
	MW-130	Oct-18			<0.0314	0.945	
	MW-130	Apr-19			0.0395 JB	0.648	
	MW-130	Oct-19			0.0828 JB	0.774	
	MW-130	Jun-20			<0.0314	0.609	
	MW-130	Oct-20			<0.0314	0.676	

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Appendix C, Table C.1 - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	TPH	
				Analyte:	GRO	DRO
				Units:	mg/L	mg/L
				CGWSL:	0.0101	0.0858
				CGWSL Source:	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
Field East of Refinery	MW-131	Apr-17		**6.81**	**1.77**	
	MW-131	Oct-17		**4.95**	**1.58**	
	MW-131	Oct-19		**8.71**	**1.46**	
	MW-131	Jun-20		**8.68**	**1.83**	
	MW-133	Nov-14		**9.40**	**2.80**	
	MW-133	Apr-15		**11.3**	**3.10**	
	MW-134	Apr-18		<0.0314	0.0533 J	
	MW-134	Apr-18	FD	<0.0314	0.0427 J	
	MW-134	Oct-18		<0.0314	0.0547 J	
	MW-134	Oct-18	FD	<0.0314	**0.0883 J**	
	MW-134	Apr-19		**0.0450 JB**	**0.0911 J**	
	MW-134	Apr-19	FD	<0.0314	**0.0927 J**	
	MW-134	Oct-19		**0.0965 JB**	**0.0947 J**	
	MW-134	Oct-19	FD	**0.0939 JB**	**0.277**	
	MW-134	Jun-20		**0.0330 JB**	0.0820 J	
	MW-134	Jun-20	FD	**0.0332 J**	<0.0247	
	MW-134	Oct-20		<0.0314	**0.107 B**	
	MW-134	Oct-20	FD	<0.0314	**0.129**	
	MW-135	Apr-18		<0.0314	0.0408 J	
	MW-135	Oct-18		<0.0314	0.0342 J	
	MW-135	Apr-19		**0.0317 JB**	0.0521 J	
	MW-135	Oct-19		**0.0796 JB**	0.0543 J	
	MW-135	Jun-20		**0.0425 J**	0.0380 J	
	MW-135	Oct-20		<0.0314	0.0723 JB	
	MW-145	Oct-20				
	MW-145	Oct-20	FD			
	MW-146	Oct-20				
	MW-147	Oct-20				
	MW-148	Oct-20				
	RA-4196	Apr-18				
	RA-4196	Oct-18				
	RA-4196	Apr-19				
	RA-4196	Oct-19				
	RA-4196	Jun-20				
	RA-4196	Oct-20				
	RA-4798	Apr-18				
	RA-4798	Oct-18				
	RA-4798	Apr-19				
	RA-4798	Oct-19				
	RA-4798	Jun-20				
	RA-4798	Oct-20				
	RW-12R	Apr-17			**1.61**	
	RW-12R	Apr-18			**0.514 B**	
	RW-12R	Apr-19			**0.822**	
	RW-12R	Jun-20			**0.633**	
	RW-13R	Apr-16			**0.808**	
	RW-13R	Apr-18			**0.526 B**	
	RW-18A	Apr-17				
	RW-18A	Apr-18				
	RW-18A	Apr-19				
	RW-18A	Jun-20				
	RW-20	Apr-15			**2.10**	
	RW-22	Apr-15			**5.40**	
NCL	MW-18	Apr-17			**0.960**	
	MW-18	Apr-18			**0.672**	
	MW-18	Apr-19			**0.842**	
	MW-18	Jun-20			**0.812**	
	MW-45	Apr-18			**0.502**	
	MW-45	Oct-18			**1.30**	
	MW-45	Apr-19			**0.975**	
	MW-45	Oct-19			**0.983**	
	MW-45	Jun-20			**0.739**	
	MW-45	Oct-20			**0.728**	
	MW-53	Apr-16			**0.316**	
	MW-53	Apr-17			**0.258**	
	MW-53	Apr-18			**0.158**	
	MW-53	Apr-19			**0.229**	
	MW-53R	Oct-20			**0.206**	
	MW-54A	Apr-18			**2.51**	
	MW-54A	Oct-18			**2.18**	
	MW-54A	Apr-19			**3.63**	
	MW-54A	Oct-19			**2.54**	
	MW-54A	Jun-20			**1.97**	
	MW-54A	Oct-20			**2.82**	
	MW-54B	Apr-13		<0.0500	**0.630**	
	MW-54B	Apr-15		<0.0310	**2.47**	
	MW-54B	Apr-17		<0.0314	**0.881**	
	MW-54B	Apr-19		<0.0314	**1.84**	
	MW-55	Apr-18		**0.0479 J**	**0.518**	
	MW-55	Oct-18		**0.0888 J**	**1.09**	
	MW-55	Apr-19		**0.0547 J**	**1.18**	
	MW-55	Oct-19		**0.142 B**	**1.05**	
	MW-55	Jun-20		**0.140**	**0.950**	
	MW-55	Oct-20		**0.635**	**1.34**	
	MW-56	Apr-17			**1.15**	
	MW-56	Apr-18			**0.287**	
	MW-56	Apr-19			**0.583**	
	MW-56	Jun-20			**0.110**	
	MW-108	Apr-18			**8.78**	
	MW-108	Oct-18			**4.41**	
	MW-108	Apr-19			**5.86**	
	MW-108	Oct-19			**3.36**	
	MW-108	Jun-20			**2.79**	
	MW-108	Oct-20			**3.18**	
	NCL-31	Apr-18			**0.927**	
	NCL-31	Oct-18			**1.45**	
	NCL-31	Apr-19			**1.86**	
	NCL-31	Oct-19			**0.934**	
	NCL-31	Jun-20			**0.494**	
	NCL-31	Oct-20			**0.587**	
	NCL-32	Apr-18			**0.971**	
	NCL-32	Oct-18			**2.11**	
	NCL-32	Apr-19			**1.67**	
	NCL-32	Oct-19			**0.970**	
	NCL-32	Jun-20			**0.533**	
	NCL-32	Oct-20			**0.800**	
	NCL-33	Apr-18			**2.44**	
	NCL-33	Oct-18			**4.50**	
	NCL-33	Apr-19			**7.38**	
	NCL-33	Oct-19			**8.53**	
	NCL-33	Jun-20			**7.21**	
	NCL-33	Oct-20			**8.54**	

				Analyte Group:	TPH	
				Analyte:	GRO	DRO
				Units:	mg/L	mg/L
				CGWSL:	0.0101	0.0858
				CGWSL Source:	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
NCL	NCL-34A	Apr-18			**5.16**	
	NCL-34A	Oct-18			**7.41**	
	NCL-34A	Apr-19			**6.59**	
	NCL-34A	Oct-19			**5.90**	
	NCL-34A	Jun-20			**6.58**	
	NCL-34A	Apr-18			**3.65**	
	NCL-44	Oct-18			**8.38**	
	NCL-44	Apr-19			**7.31**	
	NCL-44	Oct-19			**5.80**	
	NCL-44	Jun-20			**4.52**	
	NCL-44	Oct-20			**5.12**	
	NCL-49	Apr-18			0.0568 J	
	NCL-49	Apr-18	FD		0.0559 J	
	NCL-49	Oct-18			**0.0922 J**	
	NCL-49	Oct-18	FD		0.0672 J	
	NCL-49	Apr-19			**0.0986 J**	
	NCL-49	Apr-19	FD		0.0811 J	
	NCL-49	Oct-19			**0.153**	
	NCL-49	Oct-19	FD		**0.119**	
	NCL-49	Jun-20			**0.0917 J**	
	NCL-49	Jun-20	FD		0.0640 J	
	NCL-49	Oct-20			0.0702 J	
	NCL-49	Oct-20	FD		0.0750 J	
North Refinery	MW-23	Apr-18		**19.3**	**13.6**	
	MW-23	Oct-18		**13.4**	**13.7**	
	MW-23	Apr-19		**15.0**	**13.4**	
	MW-23	Oct-19		**4.70 B**	**20.1**	
	MW-23	Jun-20		**8.73**	**13.0**	
	MW-23	Oct-20		**2.93**	**17.9**	
	MW-29	Apr-18		<0.0314	**1.03**	
	MW-29	Oct-18		**0.126**	**1.10**	
	MW-29	Apr-19		**0.0472 JB**	**0.961**	
	MW-29	Oct-19		**0.128 B**	**1.28**	
	MW-29	Jun-20		**0.0764 JB**	**2.75**	
	MW-29	Oct-20		**0.0886 J**	**2.28**	
	MW-39	Apr-18		**1.36**	**6.39**	
	MW-39	Oct-18		**0.758**	**4.99**	
	MW-39	Apr-19		**0.785**	**6.54**	
	MW-39	Oct-19		**0.736 B**	**5.64**	
	MW-39	Jun-20		**0.740**	**7.00**	
	MW-39	Oct-20		**0.412**	**6.28**	
	MW-40	Apr-17		**1.29**	**4.15**	
	MW-40	Apr-18		**1.18**	**2.45**	
	MW-40	Apr-19		**0.769**	**3.38**	
	MW-40	Jun-20		**0.500**	**2.45**	
	MW-41	Apr-17		**0.249**	**1.58**	
	MW-41	Apr-18		**0.111**	**3.30**	
	MW-41	Apr-19		**0.229**	**6.47**	
	MW-41	Jun-20		**0.309 B**	**3.53**	
	MW-42	Apr-17		**0.262**	**3.41**	
	MW-42	Apr-18		**0.626**	**2.98**	
	MW-42	Apr-19		**0.822**	**5.48**	
	MW-42	Jun-20		**1.26 J**	**4.95**	
	MW-43	Apr-18		**73.8**	**5.89**	
	MW-43	Oct-18		**35.8**	**6.37**	
	MW-43	Apr-19		**2.12**	**7.90**	
	MW-43	Oct-19		**32.6 B**	**13.5**	
	MW-43	Jun-20		**14.1**	**6.55**	
	MW-43	Oct-20		**34.2**	**7.74**	
	MW-59	Apr-17		**0.163**	**0.835**	
	MW-59	Apr-18		**0.232**	**0.576**	
	MW-59	Apr-19		**0.0605 JB**	**1.08**	
	MW-59	Jun-20		**0.302 B**	**2.97**	
	MW-60	Apr-18		**0.319**	**0.633**	
	MW-60	Apr-18	FD	**0.347**	**0.688**	
	MW-60	Oct-18		**0.593**	**1.23**	
	MW-60	Oct-18	FD	**0.502**	**1.09**	
	MW-60	Apr-19		**0.252**	**1.61**	
	MW-60	Apr-19	FD	**0.281**	**1.11**	
	MW-60	Oct-19		**0.646 B**	**1.01**	
	MW-60	Oct-19	FD	**0.632 B**	**1.00**	
	MW-60	Jun-20		**0.466**	**0.754**	
	MW-60	Jun-20	FD	**0.337**	**0.707**	
	MW-60	Oct-20		**0.528**	**1.03**	
	MW-60	Oct-20	FD	**0.587**	**0.930**	
	MW-61	Apr-18		**7.59**	**2.55**	
	MW-61	Oct-18		**13.4**	**4.40**	
	MW-61	Apr-19		**6.39**	**2.67**	
	MW-61	Oct-19		**11.1 B**	**4.75**	
	MW-61	Jun-20		**13.0 B**	**4.45**	
	MW-61	Oct-20		**11.7**	**4.58**	
	MW-62	Apr-18		**9.38**	**4.28**	
	MW-62	Oct-18		**11.6**	**7.19**	
	MW-62	Apr-19		**6.09**	**6.18**	
	MW-62	Oct-19		**10.6 B**	**8.55**	
	MW-62	Jun-20		**9.16**	**7.79**	
	MW-62	Oct-20		**7.35**	**7.46**	
	MW-62R	Oct-20		**7.74**	**11.4**	
	MW-67	Oct-17		**0.649**	**8.48 J3J4**	
	MW-67	Apr-18		**1.53**	**4.25**	
	MW-67	Oct-18		**0.562**	**7.73**	
	MW-67	Apr-19		**0.868**	**9.31**	
	MW-90	Apr-18		**0.354**	**3.29**	
	MW-90	Oct-18		**0.397 B**	**5.54**	
	MW-90	Apr-19		**0.0877 J**	**4.99**	
	MW-90	Oct-19		**0.321 B**	**2.21**	
	MW-90	Jun-20		**0.412**	**3.69**	
	MW-90	Oct-20		**0.498**	**3.99**	
	MW-91	Apr-18		**17.2**	**8.33**	
	MW-91	Oct-18		**16.7**	**11.8**	
	MW-91	Apr-19		**13.8**	**15.8**	
	MW-91	Oct-19		**34.8 B**	**10.8**	
	MW-91	Jun-20		**36.2**	**11.5**	

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Appendix C, Table C.1 - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	TPH	
				Analyte:	GRO	DRO
				Units:	mg/L	mg/L
				CGWSL:	0.0101	0.0858
				CGWSL Source:	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
North Refinery	MW-92	Apr-16		5.50	20.4	
	MW-92	Oct-16		6.05	22.8	
	MW-93	Apr-17		3.73	7.89	
	MW-93	Apr-18		3.59	5.05	
	MW-93	Apr-19		2.82	7.92	
	MW-93	Jun-20		6.28	8.54	
	MW-94	Oct-15		6.12	25.6	
	MW-94	Apr-16		7.91	8.69	
	MW-94	Oct-16		6.83	9.76	
	MW-94	Apr-17		10.2	9.96	
	MW-95	Apr-17		0.0826 J	6.96	
	MW-95	Apr-18		<0.0314	3.68	
	MW-95	Apr-19		<0.0314	7.34	
	MW-95	Jun-20		0.162 B	6.29	
	MW-96	Apr-18		36.5	4.65	
	MW-96	Oct-18		31.3	8.07	
	MW-96	Apr-19		17.0	9.67	
	MW-96	Oct-19		25.7 B	6.80	
	MW-96	Jun-20		30.4	8.28	
	MW-96	Oct-20		71.6	6.91	
	MW-98	Apr-18		25.4	4.78	
	MW-98	Oct-18		20.9	5.69	
	MW-98	Apr-19		25.0	5.64	
	MW-98	Oct-19		19.5 B	6.15	
	MW-98	Jun-20		16.7	6.31	
	MW-98	Oct-20		22.0	5.31	
	MW-137	Oct-17		33.1	11.3	
	MW-137	Apr-18		26.6	9.60	
	MW-137	Oct-18		32.6	8.76	
	MW-137	Apr-19		33.2	9.76	
	MW-138	Oct-17		2.20	15.0	
	MW-138	Apr-18		2.44	6.05	
	MW-138	Oct-18		4.06	6.00	
	MW-138	Apr-19		4.17	6.67	
	RW-1R	Apr-16		2.13	8.54	
	RW-1	Apr-17		2.20	21.5	
	RW-1	Apr-18		6.05	8.92	
	RW-1	Apr-19		5.13	16.1	
	RW-2	Apr-15		18.3	19.7	
	RW-2R	Apr-16		20.8	17.3	
	RW-2	Apr-17		17.2	11.6	
	RW-2	Apr-18		20.5	8.31	
	RW-7	Apr-17		<0.0314	1.15	
	RW-7	Apr-18		0.177	11.3	
	RW-7	Apr-19		0.230	19.1	
	RW-7	Jun-20		0.334 JB	7.54	
	RW-8	Apr-15			7.30	
	RW-8	Apr-17			11.6	
	RW-9	Apr-17		2.36	3.21	
	RW-9	Apr-18		2.20	2.31	
	RW-9	Apr-19		1.67	4.33	
	RW-9	Jun-20		0.821	4.02	
	RW-10	Apr-17		0.207	2.90	
	RW-10	Apr-18		0.380	2.81	
	RW-10	Apr-19		0.195	3.06	
	RW-10	Jun-20		0.219	3.33	
	RW-16B	Apr-17			1.08	
	RW-16B	Apr-18			0.350	
	RW-16B	Apr-19			0.744	
	RW-16B	Jun-20			2.12	
	RW-17A	Apr-17		0.0622 J	2.57	
	RW-17A	Apr-18		0.0927 J	1.57	
	RW-17A	Apr-19		<0.0314	1.45	
	RW-17A	Jun-20		0.0426 J	1.44	
North RO Reject Field	MW-117	Apr-18		<0.0314	<0.0247	
	MW-117	Oct-18		<0.0314	<0.0247	
	MW-117	Apr-19		0.0967 JB	<0.0247	
	MW-117	Oct-19		0.0732 JB	<0.0247	
	MW-117	Jun-20		<0.0314	0.109	
	MW-117	Oct-20		<0.0314	0.0997 JB	
	MW-118	Apr-18		<0.0314	<0.0282	
	MW-118	Oct-18		<0.0314	0.0325 J	
	MW-118	Apr-19		<0.0314	<0.0247	
	MW-118	Oct-19		0.0728 JB	<0.0247	
	MW-118	Jun-20		<0.0314	<0.0247	
	MW-118	Oct-20		<0.0314	0.0817 JB	
	MW-119	Apr-18		<0.0314	<0.0247	
	MW-119	Oct-18		<0.0314	0.0470 J	
	MW-119	Apr-19		<0.0314	<0.0247	
	MW-119	Oct-19		0.0830 JB	<0.0247	
	MW-119	Jun-20		<0.0314	0.376	
	MW-119	Oct-20		<0.0314	0.215 B	
South Refinery	MW-107	Oct-16		17.7	7.24	
	MW-107	Apr-17		6.67	7.91	
	MW-107	Apr-18		21.6	4.50	
	MW-107	Apr-19		23.3	7.93	
	MW-109	Apr-18		5.96	2.84	
	MW-109	Oct-18		6.56	3.76	
	MW-109	Apr-19		5.21 B	2.53	
	MW-109	Oct-19		5.46 B	2.84	
	MW-109	Jun-20		5.44	2.61	
	MW-109	Oct-20		3.77	2.33	
	MW-110	Apr-18		2.04	1.27	
	MW-110	Oct-18		0.377	0.774	
	MW-110	Apr-19		0.623	0.903	
	MW-110	Oct-19		0.506 B	0.630	
	MW-110	Jun-20		0.587	0.696	
	MW-110	Oct-20		0.406	0.721	
	MW-139	Oct-19		0.636 B	1.15	
	MW-139	Jun-20		0.411	1.55	
	MW-139	Oct-20		0.490	1.30	
	RA-313	Apr-17				
	RA-313	Apr-18				
	RA-313	Apr-19				
	RA-313	Jun-20				

				Analyte Group:	TPH		
				Analyte:	GRO	DRO	DRO - EP
				Units:	mg/L	mg/L	mg/L
				CGWSL:	0.0101	0.0858	0.0167
				CGWSL Source:	NMED TPH	NMED TPH	NMED TPH
Area	Well ID	Date	Dup				
	RW-4	Apr-17			2.35		
	RW-4	Apr-18			1.02		
	RW-4	Apr-19			2.53		
	RW-4	Jun-20			1.63		
	RW-5R	Apr-15			6.42		
	RW-5R	Apr-16			7.39		
	RW-6	Apr-15			11.4		
	RW-6R	Apr-16			4.20		
	RW-6	Apr-18			3.04		
	RW-6	Apr-19			3.23		
	RW-15C	Apr-17			9.74		
	RW-15C	Apr-18			9.27		
	RW-15C	Apr-19			11.7		
	KWB-2R	Apr-17			1.35		
	KWB-2R	Oct-17			4.84		
	KWB-2R	Apr-19			0.887		
	KWB-2R	Oct-19			4.64		
	KWB-5	Oct-17			1.55		
	KWB-5	Apr-18			1.70		
	KWB-5	Oct-18			1.62		
	KWB-5	Apr-19			1.73		
	KWB-6	Apr-17			2.04		
	KWB-6	Oct-17			2.16		
	KWB-6	Apr-18			1.77		
	KWB-6	Oct-18			1.52		
	MW-28	Apr-18		5.55	3.62		
	MW-28	Oct-18		1.30	4.68		
	MW-28	Apr-19		5.37	8.80		
	MW-28	Oct-19		10.4 B	11.6		
	MW-28	Jun-20		3.94	3.91		
	MW-28	Oct-20		1.65	5.28		
	MW-48	Apr-18		45.6	6.50		
	MW-48	Oct-18		21.8	5.56		
	MW-48	Apr-19		17.7	6.53		
	MW-48	Oct-19		31.9 B	6.48		
	MW-50	Apr-18			0.489		
	MW-50	Oct-18			0.677		
	MW-50	Apr-19			0.632		
	MW-50	Oct-19			0.399		
	MW-50	Jun-20			0.522		
	MW-50	Oct-20			0.526		
	MW-52	Apr-18		<0.0314	0.231 B		
	MW-52	Oct-18		<0.0314	0.269		
	MW-52	Apr-19		0.0328 JB	0.146		
	MW-52	Oct-19		0.0776 JB	0.183		
	MW-52	Jun-20		<0.0314	0.294		
	MW-52	Oct-20		<0.0314	0.282		
South Refinery	MW-64	Apr-18		102	8.37		
	MW-64	Oct-18		141	7.23		
	MW-64	Apr-19		130	9.22		
	MW-64	Oct-19		96.0	6.97		
	MW-64	Jun-20		102	8.18		
	MW-64	Oct-20		94.8	6.54		
	MW-65	Apr-18		15.5	5.05		
	MW-65	Oct-18		10.4	4.57		
	MW-65	Apr-19		16.9	4.86		
	MW-65	Oct-19		21.4 B	3.59		
	MW-66	Apr-18		9.68	2.97		
	MW-66	Oct-18		6.51	4.31		
	MW-66	Apr-19		6.03	3.25		
	MW-66	Oct-19		7.15 B	2.77		
	MW-66	Jun-20		8.44	2.19		
	MW-66	Oct-20		4.41	3.36		
	MW-99	Apr-18		11.9	1.52		
	MW-99	Oct-18		11.9	2.23		
	MW-99	Apr-19		14.9	2.93		
	MW-99	Oct-19		5.02	2.30		
	MW-99	Jun-20		3.97	4.19		
	MW-101	Apr-18		0.485 J	3.21		
	MW-101	Oct-18		0.452	5.05		
	MW-101	Apr-19		0.421	3.98		
	MW-101	Oct-19		0.440 B	4.58		
	MW-101	Jun-20		0.553	4.85		
	MW-101	Oct-20		5.37	6.07		
	MW-102	Apr-18		32.7	34.6		
	MW-102	Oct-18		41.8	10.4		
	MW-102	Apr-19		27.7	9.96		
	MW-102	Oct-19		34.7 B	13.6		
	MW-102	Jun-20		27.1	5.50		
	MW-102	Oct-20		28.9	9.97		
	MW-103	Apr-17		3.46	6.94		
	MW-103	Apr-18		6.45	6.23		
	MW-103	Apr-19		6.55	7.87		
	MW-103	Jun-20		5.15	6.08		
	MW-104	Apr-18		1.40	1.85		
	MW-104	Apr-18	FD	1.53	1.80		
	MW-104	Oct-18		1.44	3.05		
	MW-104	Oct-18	FD	1.38	2.87		
	MW-104	Apr-19		1.53	2.23		
	MW-104	Apr-19	FD	1.20	2.15		
	MW-104	Oct-19		1.34	1.26		
	MW-104	Oct-19	FD	1.30	1.36		
	MW-104	Jun-20		1.44	1.14		
	MW-104	Jun-20	FD	1.22	1.03		
	MW-104	Oct-20		1.32	1.04		
	MW-104	Oct-20	FD	1.15	1.10		

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Appendix C, Table C.1 - Summary of Groundwater Analytical Data - Total Petroleum Hydrocarbons

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:		TPH		
		Analyte:		GRO	DRO	DRO - EP
		Units:		mg/L	mg/L	mg/L
		CGWSL:		0.0101	0.0858	0.0167
		CGWSL Source:		NMED TPH	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
South Refinery	MW-105	Apr-18		**21.4**	**11.4**	
	MW-105	Oct-18		**17.7**	**13.4**	
	MW-105	Apr-19		**20.3**	**7.24**	
	MW-105	Oct-19		**17.1 B**	**7.63**	
	MW-105	Jun-20		**25.6**	**9.03**	
	MW-105	Oct-20		**32.8**	**9.39**	
	MW-106	Apr-18		**25.9**	**9.31**	
	MW-106	Oct-18		**33.9**	**11.2**	
	MW-106	Apr-19		**9.47**	**7.27**	
	MW-106	Oct-19		**60.5 B**	**16.1**	
	MW-106	Jun-20		**28.4 B**	**14.6**	
	MW-106	Oct-20		**54.4**	**16.5**	
South RO Reject Field	MW-114	Apr-18		<0.0314	<0.0247	
	MW-114	Oct-18		<0.0314	<0.0247	
	MW-114	Apr-19		<0.0314	<0.0247	
	MW-114	Oct-19		**0.0705 JB**	0.0374 J	
	MW-114	Jun-20		<0.0314	**0.436**	
	MW-114	Oct-20		<0.0314	**0.663**	
	MW-115	Apr-18		<0.0314	0.0341 JB	
	MW-115	Oct-18		<0.0314	<0.0247	
	MW-115	Apr-19		<0.0314	0.0376 J	
	MW-115	Oct-19		**0.0733 JB**	<0.0247	
	MW-115	Jun-20		<0.0314	0.0430 J	
	MW-115	Oct-20		<0.0314	**0.222 B**	
	MW-116	Apr-18		<0.0314	0.0353 J	
	MW-116	Oct-18		<0.0314	0.0468 J	
	MW-116	Apr-19		**0.0383 JB**	**0.172**	
	MW-116	Oct-19		**0.118 B**	**0.123**	
	MW-116	Jun-20		<0.0314	<0.0247	
	MW-116	Oct-20		<0.0314	**0.127 B**	
TEL	MW-49	Apr-18		**4.42**	**4.48**	
	MW-49	Oct-18		**2.99**	**4.24**	
	MW-49	Apr-19		**4.03**	**8.93**	
	MW-49	Oct-19		**5.13 B**	**6.47**	
	MW-49	Jun-20		**5.45**	**4.96**	
	MW-49	Oct-20		**5.05**	**5.44**	
	TEL-1	Apr-18		**0.415**	**8.29**	
	TEL-1	Oct-18		**0.381**	**8.36**	
	TEL-1	Apr-19		**0.357**	**8.30**	
	TEL-1	Oct-19		**0.736 JB**	**8.74**	
	TEL-1	Jun-20		**0.366 J**	**5.74**	
	TEL-2	Apr-18		**3.84**	**16.7**	
	TEL-2	Oct-18		**5.19**	**14.8**	
	TEL-2	Apr-19		**4.27**	**15.8**	
	TEL-2	Oct-19		**3.00 B**	**13.5**	
	TEL-2	Jun-20		**1.89**	**8.16**	
	TEL-3	Apr-18		**2.05**	**7.42**	
	TEL-3	Apr-19		**0.999**	**4.14**	
	TEL-3	Oct-19		**1.54 B**	**4.82**	
	TEL-3	Oct-20		**2.28**	**6.36**	
	TEL-4	Apr-18		**1.32**	**3.99**	
	TEL-4	Apr-18	FD	**1.16**	**4.24**	
	TEL-4	Oct-18		**0.815**	**1.15**	
	TEL-4	Oct-18	FD	**0.737**	**1.18**	
	TEL-4	Apr-19		**0.625**	**1.27**	
	TEL-4	Apr-19	FD	**0.664**	**1.31**	
	TEL-4	Oct-19		**0.919 B**	**4.16**	
	TEL-4	Oct-19	FD	**1.34 B**	**4.31**	
	TEL-4	Jun-20		**0.456 J**	**5.73**	
	TEL-4	Jun-20	FD	**0.976 J**	**5.68**	
	TEL-4	Oct-20		**0.837 J**	**5.91**	
	TEL-4	Oct-20	FD	**1.07**	**6.12**	
TMD	MW-8	Apr-17		**0.585**	**0.238**	
	MW-8	Apr-18		**0.0561 J**	**0.112**	
	MW-8	Apr-19		**0.127 B**	**0.0861 J**	
	MW-8	Jun-20		**0.300**	0.0458 J	
	MW-16	Apr-17			**0.275**	
	MW-16	Apr-18			**0.189**	
	MW-16	Apr-19			**0.156**	
	MW-16	Jun-20			**0.120**	
	MW-20	Apr-17			**0.280**	
	MW-20	Apr-18			0.0810 J	
	MW-20	Apr-19			0.0561 J	
	MW-20	Jun-20			<0.0247	
	MW-20	Apr-19			0.0561 J	
	MW-20	Jun-20			<0.0247	

		Analyte Group:		TPH		
		Analyte:		GRO	DRO	DRO - EP
		Units:		mg/L	mg/L	mg/L
		CGWSL:		0.0101	0.0858	0.0167
		CGWSL Source:		NMED TPH	NMED TPH	NMED TPH
Area	Well ID	Date	Dup			
TMD	MW-21	Apr-18		**0.0452 J**	0.0542 J	
	MW-21	Oct-18		**0.0645 J**	**0.0958 J**	
	MW-21	Apr-19		**0.149 B**	**0.184**	
	MW-21	Oct-19		**0.229 B**	0.0847 J	
	MW-21	Jun-20		**0.284**	**0.149**	
	MW-21	Oct-20		**0.492**	**0.163**	
	MW-25	Apr-17			**0.107**	
	MW-25	Apr-18			0.0327 J	
	MW-25	Apr-19			0.0401 J	
	MW-25	Jun-20			<0.0247	
	MW-26	Apr-17			0.0773 J	
	MW-26	Apr-18			0.0492 J	
	MW-26	Apr-19			0.0502 J	
	MW-26	Jun-20			0.0276 J	
	MW-27	Apr-17			**0.0992 J**	
	MW-27	Apr-18			0.0537 J	
	MW-27	Apr-19			0.0517 J	
	MW-27	Jun-20			<0.0247	
	MW-46R	Apr-18			<0.0247	
	MW-46R	Oct-18			<0.0247	
	MW-46R	Apr-19			<0.0247	
	MW-46R	Oct-19			0.0677 J	
	MW-46R	Jun-20			0.0408 J	
	MW-46R	Oct-20			**0.111**	
	MW-68	Apr-17			**0.138**	
	MW-68	Apr-18			0.0508 J	
	MW-68	Apr-19			0.0267 J	
	MW-68	Jun-20			0.0250 J	
	MW-71	Apr-17			**0.0947 J**	
	MW-71	Apr-18			<0.0247	
	MW-71	Apr-19			<0.0247	
	MW-71	Jun-20			0.0323 J	
	MW-89	Apr-17			**2.15**	
	MW-89	Apr-18			**0.403**	
	MW-89	Apr-19			**0.611**	
	MW-89	Jun-20			**0.218**	
	NP-1	Apr-18				
	NP-1	Oct-18				
	NP-1	Apr-19				
	NP-1	Oct-19				
	NP-1	Jun-20				
	NP-1	Oct-20				
	NP-6	Apr-13				
	NP-6	Apr-15				
	NP-6	Apr-17				
	NP-6	Apr-19				
Up-Gradient	UG-1	Apr-17		<0.0314	0.0484 J	
	UG-1	Apr-18		<0.0314	0.0723 J	
	UG-1	Apr-19		<0.0314	<0.0247	
	UG-1	Jun-20		<0.0314	<0.0247	
	UG-2	Apr-17		<0.0314	0.0818 J	
	UG-2	Apr-18		<0.0314	<0.0247	
	UG-2	Apr-19		<0.0314	0.0647 J	
	UG-2	Jun-20		<0.0314	<0.0247	
	UG-3R	Apr-17		<0.0314	0.0517 J	
	UG-3R	Apr-18		<0.0314	<0.0247	
	UG-3R	Apr-19		<0.0314	<0.0247	
	UG-3R	Jun-20		**0.0421 J**	0.0478 J	
	UG-4	Apr-17		<0.0314	0.0463 J	
	UG-4	Apr-18		<0.0314	<0.0247	
	UG-4	Apr-19		<0.0314	<0.0247	
	UG-4	Jun-20		<0.0314	<0.0247	

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
---	No applicable CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
DRO	Diesel Range Organics
DRO-EP	Diesel Range Organics data from wells located in the Evaporation Ponds area
Dup	Duplicate sample
FD	Field duplicate sample
GRO	Gasoline Range Organics
mg/L	Milligrams per Liter
TPH	Total Petroleum Hydrocarbons
NMED TPH	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table 6-4 TPH Groundwater Screening Leve

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
Q	Sample was prepared and/or analyzed past recommended holding time.
V3	Internal standard exhibited poor recovery due to sample matrix interference; analytical result biased high.

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Cross-Gradient	KWB-13	Apr-17		0.00286	0.0229	0.294	<0.000160	0.000487 J	0.00148 J	**1.02**	0.00107 J	0.0234	<0.0000490	0.00119 J	0.0130	0.0227	0.0213
	KWB-13	Apr-18		0.00395	0.0325	0.343	<0.000160	0.000953 J	0.00437 B	**3.01**	0.00292	0.0490	0.0000726 JB	0.00296	0.0131	0.0249	0.0261
	KWB-13	Apr-19		0.00485	0.0372	0.376	0.000325 J	0.00113 J	0.00514 B	**2.18**	0.00472	0.0829	<0.0000490	0.00325	0.0151	0.0250	0.0308
	KWB-13	Jun-20		0.00587	0.0485	0.306	<0.000478	0.00163 J	0.00721	**4.41**	0.00654	0.113	<0.000100	0.0110	0.0103	0.0260	0.0327
	MW-136	Apr-18		0.00245	0.0104	0.657	<0.000160	<0.000260	0.00403 B	0.0368 JB	<0.000240	0.00375 J	0.0000593 JB	0.00193 J	0.00759	**0.0675**	0.0163
	MW-136	Oct-18		0.00258 J	0.0115	0.697	<0.000160	<0.000520	<0.00108	0.0379 J	<0.000480	0.00900 JB	0.000168 J	0.00180 J	0.00759	**0.0688**	0.0176
	MW-136	Apr-19		0.00283	0.0153	0.699	<0.000160	0.000319 J	0.000696 J	0.163	0.000319 J	0.0206	<0.0000490	0.00143 J	0.00503	**0.0729**	0.0169
	MW-136	Oct-19		0.00256	0.0121	0.663	<0.000160	<0.000260	<0.000540	0.0670 J	0.000261 J	0.0127	0.0000659 JB	0.00108 J	0.00581	**0.0599**	0.0184
	MW-136	Jun-20		0.00245	0.0147 J	0.571	<0.000478	0.000685 J	<0.00149	0.171	<0.00249	0.0352	<0.000100	0.00183 J	0.00593	**0.0639**	0.0161
	MW-136	Oct-20		0.00247	0.0123 J	0.556	<0.000478	<0.000477	<0.00149	0.0705 J	<0.00249	0.0123 B	<0.000100	0.00248	0.00553	**0.0558**	0.0158
	NP-5	Apr-13		<0.0100	<0.0100				<0.0100	<0.400	<0.0100	<0.0100			0.0135		
	NP-5	Apr-15		0.00288	0.0159				0.00109 J	0.437	0.000415 J	0.00318 J			0.0125		
	NP-5	Apr-17		0.00305	0.00938				<0.000540	0.0632 J	<0.000240	0.000586 J			0.0124		
	NP-5	Apr-19		0.00313	0.00844				<0.000540	0.0278 J	0.000709 J	0.000563 J			0.0119		
	RA-3156	Apr-17															
	RA-3156	Apr-18															
	RA-3156	Apr-19															
	RA-3156	Jun-20															
Evaporation Ponds	MW-1R	Apr-17		0.00221	0.0258				<0.000540	**4.50**	<0.000240	**2.38**			<0.000380		
	MW-1R	Apr-18		0.00180 J	0.0224				<0.000540	**3.42**	0.000344 J	**1.71**			0.000380 J		
	MW-1R	Apr-19		0.00176 J	0.0213				<0.000540	**2.17**	<0.000240	**0.995**			<0.000380		
	MW-1R	Jun-20		0.00119 J	0.0219				<0.00149	**1.87**	<0.00249	**1.30**			<0.000657		
	MW-2A	Apr-18		0.00931	0.0225				0.000609 JB	**2.94**	<0.000240	**1.28**			0.00199 J		
	MW-2A	Oct-18		0.00892	0.0314				0.000784 J	0.617	<0.000240	**1.24**			0.000828 J		
	MW-2A	Apr-19		0.00824	0.0214				0.00139 J	**2.14**	0.000266 JB	**1.03**			0.00175 J		
	MW-2A	Oct-19		0.00661	0.0315				<0.000540	0.109	<0.000240	**1.10**			0.00186 J		
	MW-2A	Jun-20		**0.0140**	0.0200				<0.00149	**2.78**	<0.00249	**1.74**			<0.000657		
	MW-2A	Oct-20		0.00798	0.0148 J				<0.00149	0.700	<0.00249	**0.491 V**			0.000658 J		
	MW-3	Apr-18		**0.0291**	0.0143				0.00246	0.472 B	0.000534 J	**0.694**			0.00605		
	MW-3	Apr-18	FD	**0.0281**	0.0159				0.00326	0.418	0.000369 JB	**0.686**			0.00725		
	MW-3	Oct-18		**0.0254**	0.0151				<0.000540	0.0441 J	0.000448 JB	**0.869**			0.00889		
	MW-3	Oct-18	FD	**0.0279**	0.0169				<0.000540	0.0176 J	0.000706 JB	**0.983**			0.00932		
	MW-3	Apr-19		**0.0238**	0.0128				0.00140 J	0.0281 J	<0.000240	**0.462**			0.0143		
	MW-3	Apr-19	FD	**0.0224**	0.0128				0.00172 J	0.0281 J	0.000432 J	**0.491**			0.0131		
	MW-3	Oct-19		**0.0976**	0.0151				0.000655 J	**3.73**	0.000341 J	**1.72**			0.00316		
	MW-3	Oct-19	FD	**0.101**	0.0154				0.000666 J	**3.79**	0.000337 J	**1.73**			0.00323		
	MW-3	Jun-20		**0.0278**	0.0125 J				<0.00149	<0.0489	<0.00249	**0.880**			0.00995		
	MW-3	Jun-20	FD	**0.0299**	0.0152 J				<0.00149	<0.0489	<0.00249	**0.913**			0.0100		
	MW-3	Oct-20		**0.0340**	0.0142 J				<0.00149	0.0772 J	<0.00249	**1.27**			0.00722		
	MW-3	Oct-20	FD	**0.0343**	0.0150 J				<0.00149	0.0500 J	<0.00249	**1.38**			0.00646		
	MW-4A	Apr-18		**0.105**	0.0125				0.00444	**9.18**	0.00119 J	**1.93**			0.000515 J		
	MW-4A	Oct-18		**0.183**	0.0122 J				<0.000540	**1.34**	<0.00120	**1.77**			0.000579 J		
	MW-4A	Apr-19		**0.132**	0.0121				0.000785 J	**1.67**	0.000346 JB	**1.82**			0.000731 J		
	MW-4A	Oct-19		**0.0758**	0.0131				0.000785 J	**1.88**	<0.000240	**2.01**			<0.000380		
	MW-4A	Jun-20		**0.111**	0.0125 J				<0.00149	**2.55**	<0.00249	**1.79**			<0.000657		
	MW-4A	Oct-20		**0.114**	0.0133 J				0.00183 J	**1.73**	<0.00249	**1.74**			<0.000657		
	MW-4B	Apr-13		**0.0371**	<0.0250				<0.0250	<1.00	**<0.0250**	**1.30**			<0.0250		
	MW-4B	Apr-15		**0.101**	0.0349				<0.00110	**3.60**	0.00189 J	**8.68**			<0.000760		
	MW-4B	Apr-17		**0.0371**	0.0182				<0.000540	**3.42**	<0.000240	**7.35**			<0.000380		
	MW-4B	Apr-19		**0.0699**	0.0165				0.000725 J	**1.54**	0.000544 JB	**11.1**			<0.000380		
	MW-5A	Apr-18		**0.187**	0.0124				<0.000540	**8.07**	0.000629 J	**1.15**			0.00121 J		
	MW-5A	Oct-18		**0.196**	0.0137 J				<0.000540	**6.17**	<0.00120	**0.946**			0.00100 J		
	MW-5A	Apr-19		**0.0975**	0.0118				0.000668 J	**6.12**	0.000696 JB	**1.45**			0.000997 J		
	MW-5A	Oct-19		**0.0939**	0.0137				0.000572 J	**5.14**	0.000327 J	**1.69**			0.000737 J		
	MW-5A	Jun-20		**0.195**	0.0153 J				0.00159 J	**3.57**	<0.00249	**0.653**			0.00116 J		
	MW-5A	Oct-20		**0.202**	0.0160 J				<0.00149	**5.02**	<0.00249	**0.848**			0.000974 J		
	MW-5B	Apr-13		**0.122**	<0.0250				<0.0250	<1.00	**<0.0250**	**2.44**			<0.0250		
	MW-5B	Apr-15		**0.201**	0.0112 J				0.00277 J	**6.11**	<0.00120	**3.87**			0.00197 J		
	MW-5B	Apr-17		**0.154**	0.0115				<0.000540	**4.61**	<0.000240	**3.32**			0.00139 J		
	MW-5B	Apr-19		**0.169**	0.0105				0.000773 J	**4.70**	<0.000240	**3.10**			0.00244		
	MW-5C	Apr-13		**0.0139**	0.0166				<0.0100	**1.04**	<0.0100	**0.943**			<0.0100		
	MW-5C	Apr-15		**0.0145**	0.0200 J				<0.00270	**1.15**	<0.00120	**0.975**			<0.00190		
	MW-5C	Apr-17		**0.0113**	0.0237				<0.000540	**1.09**	0.000287 J	**0.918**			<0.000380		
	MW-5C	Apr-19		**0.0114**	0.0127				<0.000540	0.858	0.000611 JB	**0.971**			<0.000380		
	MW-6A	Apr-17		**0.0105**	0.0135				<0.000540	0.193	0.000366 J	**0.385**			0.000910 J		
	MW-6A	Apr-18		0.00960	0.0132				0.00136 JB	0.275 B	0.000553 J	**0.301**			0.000614 J		
	MW-6A	Apr-19		0.00818	0.0127				0.000969 J	0.468	0.000315 JB	**0.304**			0.000599 J		
	MW-6A	Jun-20		0.00491	0.0121 J				<0.00149	0.472	<0.00249	**0.259**			<0.000657		
	MW-6B	Mar-13		**0.0493**	0.0139				<0.00500	**1.54**	<0.00500	**2.39**			<0.00500		
	MW-6B	Mar-13	FD	**0.0537**	0.0163				<0.00500	**1.69**	<0.00500	**2.43**			<0.00500		
	MW-6B	Apr-15		**0.0333**	0.0164				<0.00110	**1.37**	<0.000480	**3.45**			<0.000760		
	MW-6B	Apr-17		**0.0115**	0.0134				<0.000540	0.149	<0.000240	**0.889**			<0.000380		
	MW-6B	Apr-19		**0.0421 O1**	0.0154				<0.000540	**1.48 O1**	0.00132 JB	**2.34 O1V**			0.000416 J		
	MW-7A	Apr-18		**0.0348**	0.0162				0.00319	**5.95**	0.000534 J	**0.483**			0.000393 J		
	MW-7A	Apr-18	FD	**0.0298**	0.0164				0.00109 J	**5.05**	0.000599 J	**0.481**			<0.000380		
	MW-7A	Oct-18		**0.0311**	0.0163 J				0.00129 J	**4.69**	<0.00120	**0.449**			<0.000380		
	MW-7A	Oct-18	FD	**0.0316**	0.0179				0.000814 J	**4.52**	0.000623 JB	**0.480**			0.000485 J		
	MW-7A	Apr-19		**0.0251**	0.0155				<0.000540	**4.21**	0.000377 JB	**0.431**			0.000446 J		
	MW-7A	Apr-19	FD	**0.0266**	0.0164				<0.000540	**4.69**	<0.000240	**0.476**			<0.000380		
	MW-7A	Oct-19		**0.0188**	0.0172				0.00212	0.325	0.000280 J	**0.360 V**			0.00524		
	MW-7A	Oct-19	FD	**0.0193**	0.0183				0.00191 J	0.387	<0.000240	**0.372**			0.00509		
	MW-7A	Jun-20		**0.0158**	0.0135 J				0.00168 J	**1.86**	<0.00249	**0.384**			<0.000657		
	MW-7A	Jun-20	FD	**0.0178**	<0.0389				<0.00745	**2.25**	<0.0124	**0.448**			<0.00328		
	MW-7A	Oct-20		**0.0373**	0.0164 J				0.00394	**4.89**	<0.00249	**0.400**			<0.000657		
	MW-7A	Oct-20	FD	**0.0240**	0.0170 J				0.00266	**2.97**	<0.00249	**0.386**			<0.000657		
	MW-7B	Apr-13		**<0.0250**	<0.0250				<0.0250	<1.00	**<0.0250**	**0.397**			<0.0250		
	MW-7B	Apr-15		0.00588	0.0111				0.000702 J	0.188	<0.000240	**0.580**			<0.000380		
	MW-7B	Apr-17		0.00397	0.0111				<0.000540	0.146	<0.000240	**0.472**			<0.000380		
	MW-7B	Apr-19		0.00400	0.0114				<0.000540	0.0885 J	0.000403 JB	**0.488**			<0.000380		
	MW-10	Apr-18		**0.0161**	0.0188				0.000870 J	0.632	0.00180 J	**2.62**			0.000478 J		
	MW-10	Oct-18		**0.0153**	0.0109 J				<0.000540	0.114	<0.00120	**2.70**			0.000472 J		
	MW-10	Apr-19		**0.0149**	0.0118				0.000749 J	0.136	0.000501 J	**2.63**			0.000838 J		
	MW-10	Oct-19		**0.0184**	0.0219				<0.000540	**1.05**	<0.000240	**2.74**			0.000619 J		
	MW-10	Jun-20		**0.0143**	0.0132 J				<0.00149	0.199	<0.00249	**2.13 V**			<0.000657		
	MW-10	Oct-20		**0.0149**	0.0129 J				<0.00149	0.208	<0.00249	**2.40**			<0.000657		
	MW-11A	Apr-18		0.000457 J	0.0321				0.00104 J	**1.02**	0.00146 JB	**0.294**			<0.000380		
	MW-11A	Oct-18															
	MW-11A	Apr-19		0.000398 J	0.0283				0.0207	0.953	0.000513 J	**0.207**			<0.000380		
	MW-11A	Oct-19															
	MW-11A	Jun-20		<0.000735	0.0294				0.00339	**1.76**	<0.00249	**1.55**			<0.000657		
	MW-11A	Oct-20															
	MW-11B	Mar-13		**<0.0250**	<0.0250				<0.0250	**3.25**	**<0.0250**	**0.316**			<0.0250		
	MW-11B	Apr-15		0.00453 J	0.0189 J				<0.00540	**4.38**	<0.00240	**0.427**			<0.00380		
	MW-11B	Apr-17		0.00420	0.0189				<0.000540	**4.59**	<0.000240	**0.374**			<0.000380		
	MW-11B	Apr-19		0.00336	0.0160				<0.000540	**3.67**	<0.000240	**0.367**			<0.000380		

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCClrr	WQCC HH	WQCClrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCClrr	WQCC HH	WQC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-15	Apr-17		**0.0130**	0.0180				<0.000540	0.0239 JB	<0.000240	0.173			0.000518 J			
	MW-15	Apr-18		**0.0165**	0.0225				0.00926	0.0730 J	0.000357 JB	**0.394**			0.00128 J			
	MW-15	Apr-19		**0.0204**	0.0242				<0.000540	0.0520 J	0.000401 J	0.166			0.00101 J			
	MW-15	Jun-20		0.00841	0.0175 J				<0.00149	<0.0489	<0.00249	**0.547**			<0.000657			
	MW-18A	Apr-18		0.00489	0.0173	**2.31**	<0.000160	0.00108 J	0.00488	0.148	<0.000240	**0.533**	<0.0000490	0.00947	0.00120 J	**0.0314**	0.000459 J	
	MW-18A	Oct-18		0.00475	0.0160 J	**2.34**	<0.000800	0.000525 J	<0.000540	0.436	<0.00120	**1.73**	0.000145 J	0.00828	<0.000380	0.0243 J	0.000400 J	
	MW-18A	Apr-19		0.00549	0.0172	**2.14**	<0.000160	0.00141 J	<0.000540	0.0468 J	0.000249 J	**0.375**	<0.0000490	0.0109	0.000716 J	**0.0379**	0.000813 J	
	MW-18A	Oct-19		0.00524	0.0163	**2.19**	<0.000160	0.000751 J	<0.000540	0.786	0.000355 J	**1.73**	<0.0000490	0.00798	0.000613 J	0.0271	0.00120 JB	
	MW-18A	Jun-20		0.00419 J	<0.0389 J5	**1.88**	<0.00239	<0.00238	<0.00745	**1.65**	<0.0124	**1.13** O1V	<0.000100	0.00735 J	<0.00328	**<0.0377** J5	<0.00493	
	MW-18A	Oct-20		0.00468	0.0171 J	**1.98**	<0.000478	0.00139 J	<0.00149	0.348	<0.00249	**1.39**	<0.000100	0.00846	<0.000657	0.0226	<0.000986	
	MW-18B	Apr-13		<0.0100	0.0126				<0.0100	<0.400	<0.0100	**0.572**			<0.0100			
	MW-18B	Apr-15		**0.0120**	0.0125				0.000942 J	0.139	0.000814 J	**0.789**			<0.000380			
	MW-18B	Apr-17		0.00883	0.0137				<0.000540	0.0793 J	0.00104 J	**0.803**			<0.000380			
	MW-18B	Apr-19		**0.0115**	0.0168				<0.000540	0.138	0.000778 J	**1.26**			<0.000380			
	MW-22A	Apr-18		**0.0386**	0.0170				0.00141 J	**4.16**	0.00101 J	**6.12**			0.000962 J			
	MW-22A	Apr-18	FD	**0.0371**	0.0165				<0.000540	**3.68**	<0.000240	**6.18**			0.000839 J			
	MW-22A	Oct-18		**0.0463**	0.0156 J				<0.000540	**5.81**	<0.00120	**5.71**			0.000677 J			
	MW-22A	Oct-18	FD	**0.0496**	0.0173				<0.000540	**5.73**	0.000489 JB	**6.14**			0.000707 J			
	MW-22A	Apr-19		**0.0355**	0.0149				0.00184 J	**2.29**	0.000242 J	**5.39**			0.00137 J			
	MW-22A	Apr-19	FD	**0.0333**	0.0152				0.00110 J	**2.25**	<0.000240	**5.54**			0.00101 J			
	MW-22A	Oct-19		**0.0263**	0.0315				<0.000540	0.769	0.000240 J	**1.46**			0.00842			
	MW-22A	Oct-19	FD	**0.0256**	0.0318				<0.000540	0.718	0.000294 J	**1.46**			0.00798			
	MW-22A	Jun-20		**0.0299**	0.0168 J				<0.00149	**2.21**	<0.00249	**2.94**			0.00271			
	MW-22A	Jun-20	FD	**0.0311**	0.0177 J				<0.00149	**1.77**	<0.00249	**3.10**			0.00171 J			
	MW-22A	Oct-20		**0.0309**	0.0163 J				<0.00149	**3.96**	<0.00249	**3.57**			0.00147 J			
	MW-22A	Oct-20	FD	**0.0301**	0.0165 J				<0.00149	**4.02**	<0.00249	**3.69**			0.00132 J			
	MW-22B	Apr-13		**0.0343**	<0.0250				<0.0250	**1.78**	**<0.0250**	**3.37**			<0.0250			
	MW-22B	Apr-15		**0.0389**	0.0160 J				<0.00270	**2.32**	0.00134 J	**4.32**			<0.00190			
	MW-22B	Apr-17		**0.0255**	0.0116				<0.000540	**1.03**	0.000313 J	**3.35**			0.000603 J			
	MW-22B	Apr-19		**0.0316**	0.0134				0.00173 J	**1.99**	<0.000240	**4.31**			0.000766 J			
	MW-70	Apr-18		**0.0508**	0.0212				<0.000540	**46.3**	0.000270 JB	**0.425**			0.000479 J			
	MW-70	Oct-18		**0.0186**	0.0161				<0.000540	**4.49**	0.000490 JB	**0.270**			<0.000380			
	MW-70	Apr-19		**0.0191**	0.0173				<0.000540	**1.23**	0.000601 J	**0.508**			<0.000380			
	MW-70	Oct-19		**0.0177**	0.0151				<0.000540	**3.92**	<0.000240	**0.369**			<0.000380			
	MW-70	Jun-20		**0.0157**	0.0156 J				<0.00149	**4.07**	<0.00249	**0.257**			<0.000657			
	MW-70	Oct-20		**0.0166**	0.0171 J				<0.00149	**4.50**	<0.00249	**0.299**			<0.000657			
	MW-72	Apr-17		**0.0164**	0.0213				<0.000540	**1.62**	<0.000240	**3.88**			0.00210			
	MW-72	Apr-18		**0.0175**	0.0155				0.000688 JB	**2.04**	<0.000240	**3.04**			0.00173 J			
	MW-72	Apr-19		**0.0109**	0.0123				0.000785 J	**1.21**	<0.000240	**1.27**			0.00232			
	MW-72	Jun-20		0.00851	0.0124 J				<0.00149	**1.99**	<0.00249	**1.91**			0.00175 J			
	MW-73	Apr-17		**0.0650**	0.00734				<0.000540	**1.92**	<0.000240	0.187			0.00184 J			
	MW-73	Apr-18		**0.0614**	0.00806				0.00109 JB	0.932	<0.000240	**1.84**			0.00147 J			
	MW-73	Apr-19		**0.0806**	0.0106				0.00152 J	0.315	<0.000240	0.0807			0.00616			
	MW-73	Jun-20		**0.0493**	0.00886 J				0.00186 J	**2.78**	<0.00249	**1.89**			0.00195 J			
	MW-74	Apr-18		**0.0956**	0.0129				0.00199 JB	0.0666 JB	<0.000240	**1.22**			0.0335			
	MW-74	Oct-18		**0.0567**	0.0133				<0.000540	0.0233 J	0.000376 J	**0.926**			**0.227**			
	MW-74	Apr-19		**0.0613**	0.0118				0.000701 J	<0.0150	<0.000240	**1.59**			**0.0893**			
	MW-74	Oct-19		**0.0885**	0.0185				0.000980 J	**1.09**	0.000594 J	**1.94**			0.0133			
	MW-74	Jun-20		**0.0552**	0.0160 J				0.00165 J	0.325	<0.00249	**1.13**			**0.151**			
	MW-74	Oct-20		**0.0779**	0.0153 J				<0.00149	0.0779 J	0.00433 J	**1.39**			0.0354			
	MW-75	Apr-18		**0.104**	0.0167				0.00325	0.523	0.000500 J	**0.877**			0.00178 J			
	MW-75	Oct-18		**0.312**	0.0149				0.000998 J	**5.50**	0.000372 J	**0.884**			0.00187 J			
	MW-75	Apr-19		**0.110**	0.0183				0.00549	0.464	0.000549 J	**0.931**			0.00388			
	MW-75	Oct-19		**0.246**	0.0135				0.00116 J	**4.16**	<0.000240	**1.13**			0.00228			
	MW-75	Jun-20		**0.270**	0.0149 J				0.00163 J	**4.58**	<0.00249	**1.13**			0.00228			
	MW-75	Oct-20		**0.320**	0.0146 J				0.00240	**5.28**	<0.00249	**0.885**			0.00271			
	MW-76	Apr-18		**0.0549**	0.0166				0.00166 JB	**3.51**	<0.000240	**0.688**			0.00321			
	MW-76	Oct-18		**0.0718**	0.0714				0.00888	**7.39**	0.00261 JB	**0.737**			0.00404			
	MW-76	Apr-19		**0.0519**	0.0116				0.00249	**3.42**	<0.000240	**0.640**			0.00338			
	MW-76	Oct-19		**0.0553**	0.0138				0.00157 J	**5.26**	<0.000240	**1.17**			0.00403			
	MW-76	Jun-20		**0.0378**	0.0121 J				0.00180 J	**3.52**	<0.00249	**0.737**			0.00379			
	MW-76	Oct-20		**0.0401**	0.0127 J				0.00176 J	**3.36**	<0.00249	**0.682**			0.00228			
	MW-77	Apr-17		**0.0466**	0.0100				0.00752	**7.88**	<0.000240	**0.521**			0.0106			
	MW-77	Apr-18		**0.0431**	0.00992				0.00946	**5.64**	0.000745 J	**0.540**			0.00983			
	MW-77	Apr-19		**0.0406**	0.00936				0.0113	**9.12**	0.000342 J	**0.551**			0.0125			
	MW-77	Jun-20		**0.0416**	0.0107 J				0.00879	**8.79**	<0.00249	**0.576**			0.00835			
	MW-78	Apr-17		0.00820	0.0388				0.0422	0.469	<0.000240	**0.435**			0.00957			
	MW-78	Apr-18		0.0100	0.0459				**0.142**	0.185 B	0.000249 J	0.198			0.0119			
	MW-78	Apr-19		0.00686	0.0506				**0.248**	0.175	0.000454 J	0.0582			0.0185			
	MW-78	Jun-20		**0.0237**	0.0498				**0.126**	**6.51**	<0.00249	**0.735**			0.00764			
	MW-79	Apr-18		0.00536	0.0160				0.000558 JB	0.0528 JB	<0.000240	**0.227**			0.000902 J			
	MW-79	Oct-18		0.00332	0.0179				<0.000540	0.114	<0.000240	**2.69**			0.000411 J			
	MW-79	Apr-19		0.00562	0.0165				0.00117 J	0.0595 J	<0.000240	**0.443**			0.00174 J			
	MW-79	Oct-19		0.00670	0.0190				<0.000540	**5.43**	<0.000240	**5.54**			0.000432 J			
	MW-79	Jun-20		0.00291	0.0154 J				<0.00149	0.998	<0.00249	**4.60**			<0.000657			
	MW-79	Oct-20		0.00397	0.0158 J				<0.00149	**1.95**	<0.00249	**4.98**			<0.000657			
	MW-80	Apr-17		0.00643	0.0173				0.00138 J	0.160	<0.000240	**0.598**			0.00218			
	MW-80	Apr-18		0.00302	0.0110				0.00109 JB	0.139 B	<0.000240	0.129			0.00111 J			
	MW-80	Apr-19		0.00215	0.0139				**0.0511**	0.176	<0.000240	0.180			0.000866 J			
	MW-80	Jun-20		0.00174 J	0.0137 J				<0.00149	0.276	<0.00249	**1.47**			<0.000657			
	MW-81	Apr-17		**0.0157**	0.0144				<0.000540	<0.0150	0.000248 J	0.0117			0.0182			
	MW-81	Apr-18		0.00875	0.0154				0.000676 JB	<0.0150	0.000245 J	0.0200			0.00666			
	MW-81	Apr-19		0.00687	0.0132				0.00109 J	<0.0150	0.000324 J	0.0379 O1			0.00488			
	MW-81	Jun-20		0.00402	0.0110 J				<0.00149	<0.0489	<0.00249	**0.506**			0.00331			
	MW-82	Apr-17		**0.0468**	0.0273				0.00182 J	0.792	0.000744 J	**2.02**			0.00137 J			
	MW-82	Apr-18		**0.0297**	0.0260				0.00125 J	0.0904 JB	0.000271 J	**2.00**			0.00146 J			
	MW-82	Apr-19		**0.0282**	0.0234				0.00139 J	0.0888 J	0.000348 J	**1.86**			0.00186 J			
	MW-82	Jun-20		**0.0964**	0.0235				0.00215	**4.11**	<0.00249	**2.22**			0.00109 J			
	MW-83	Apr-18		**0.0562**	0.0316				0.0137	**4.08**	0.00133 J	**0.342**			0.00218			
	MW-83	Oct-18		**0.0343**	0.0365				0.0477	**7.25**	0.00814	**0.472**			0.0124			
	MW-83	Apr-19		**0.0210**	0.0164				0.00725	0.324	0.00177 JB	**0.443**			0.0125			
	MW-83	Oct-19		**0.0508**	0.0477				0.0185	**7.75**	0.00166 J	**0.859**			0.00699			
	MW-83	Jun-20		**0.0378**	0.0246				0.00317	0.151	<0.00249	**0.332**			0.0101			
	MW-83	Oct-20		**0.0321**	0.0276				0.0189	**6.79**	<0.00249	**0.258**			0.00298			
	MW-84	Apr-18		**0.0904**	0.0126				0.00224	**1.30**	<0.000240	**2.66**			0.00438			
	MW-84	Oct-18		**0.150**	0.0135				0.00213	**8.01**	0.000288 J	**2.83**			0.00367			
	MW-84	Apr-19		**0.0809**	0.0131				0.00180 J	0.643	0.000296 JB	**2.50**			0.00480			
	MW-84	Oct-19		**0.143**	0.0127				0.00201	**6.50**	<0.000240	**2.74**			0.00421			
	MW-84	Jun-20		**0.147**	0.0137 J				0.00570	**5.90**	<0.00249	**2.54**			0.00751			
	MW-84	Oct-20		**0.187**	0.0134 J				0.00501	**9.43**	0.00278 J	**3.05**			0.00589			
	MW-86	Jun-20		**0.104**	0.0255	0.626	<0.000478	0.000506 J	**0.0552**	**4.20**	<0.00249	0.158	<0.000100	0.00828	0.00715	<0.00754	0.0220	
	MW-86	Oct-20		**0.0948**	0.0184 J	0.671	<0.000478	<0.000477	0.0388	0.210	0.00356 J	0.170	<0.000100	0.00447	0.00443	<0.00754	0.0209	

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-87	Apr-18		0.00609	0.0145				<0.000540	0.924	0.000262 JB	**0.686**			0.000502 J		
	MW-87	Oct-18		0.00723	0.0168 J				<0.000540	**1.27**	<0.00120	**1.18**			<0.000380		
	MW-87	Apr-19		0.00484	0.0159				<0.000540	0.122	0.000477 J	0.189			<0.000380		
	MW-87	Oct-19		0.00577	0.0176				<0.000540	0.156	0.000308 J	**0.808**			0.000543 J		
	MW-87	Jun-20		0.00424	0.0145 J				0.00174 J	0.0502 J	<0.0124	**2.65**			<0.000657		
	MW-87	Oct-20		0.00783	0.0169 J				<0.00149	0.925	<0.00249	**1.56 V**			<0.000657		
	MW-88	Apr-18		0.00806	0.0112				0.00119 J	0.0352 J	0.000649 J	**0.927 V**			<0.000380		
	MW-88	Oct-18		0.00660	0.0109				<0.000540	0.0233 J	0.000531 JB	**0.881**			<0.000380		
	MW-88	Apr-19		0.00713	0.0109				0.00124 J	0.0221 J	<0.000240	**0.929**			0.000430 J		
	MW-88	Oct-19		0.00643	0.0110				<0.000540	0.0183 J	<0.000240	**0.926**			<0.000380		
	MW-88	Jun-20		0.00559	0.00971 J				<0.00149	0.0546 J	<0.00249	**0.807**			<0.000657		
	MW-88	Oct-20		0.00645	0.0106 J				<0.00149	<0.0489	<0.00249	**0.898**			<0.000657		
	MW-120	Apr-18		**0.0117**	0.0104				<0.000540	**3.78**	<0.000240	**1.24**			0.000466 J		
	MW-120	Oct-18		**0.0118**	0.0126				<0.000540	**4.55 O1**	0.000327 J	**1.35 O1V**			<0.000380		
	MW-120	Apr-19		**0.0141**	0.0112				<0.000540	**5.86**	0.000743 JB	**1.21**			0.000890 J		
	MW-120	Oct-19		0.00935	0.0115				<0.000540	**4.05**	<0.000240	**1.28**			0.000828 J		
	MW-120	Jun-20		0.00614	0.00971 J				<0.00149	**2.94**	<0.00249	**0.973**			<0.000657		
	MW-120	Oct-20		0.00769	0.0109 J				<0.00149	**4.31**	<0.00249	**1.38**			0.000719 J		
	MW-121	Apr-18		**0.0373**	0.0122				<0.000540	0.519	0.000325 J	**2.57**			0.00485		
	MW-121	Oct-18		**0.0350**	0.0123				<0.000540	0.118	0.000425 J	**2.03**			0.00619		
	MW-121	Apr-19		**0.145**	0.0122				<0.000540	**2.10**	0.000348 JB	**2.02**			0.00529		
	MW-121	Oct-19		**0.0387**	0.0126				0.000795 J	0.212	<0.000240	**1.01**			0.00749		
	MW-121	Jun-20		**0.131**	0.0115 J				<0.00149	**2.33**	<0.00249	**2.29**			0.00453		
	MW-121	Oct-20		**0.105**	0.0134 J				0.00380	**1.88**	<0.00249	**2.51**			0.00320		
	MW-122	Apr-18		0.00252	0.0198				0.00136 JB	0.860	<0.000240	**0.763**			<0.000380		
	MW-122	Oct-18		0.00349	0.0197				<0.000540	**3.58**	<0.000240	**1.08**			<0.000380		
	MW-122	Apr-19		0.00196 J	0.0250				0.000767 J	0.833	0.000610 JB	**1.14**			0.000524 J		
	MW-122	Oct-19		0.00452	0.0213				0.000756 J	**5.96**	0.000780 J	**1.09**			<0.000380		
	MW-122	Jun-20		0.00412	0.0194 J				<0.00149	**3.11**	<0.00249	**1.02 V**			0.000840 J		
	MW-122	Oct-20		0.00425	0.0223				<0.00149	**4.97**	<0.00249	**1.01**			<0.000657		
	MW-123	Apr-18		**0.0226**	0.0229				<0.000540	0.0493 J	0.000256 J	**2.77**			<0.000380		
	MW-123	Oct-18		**0.0211**	0.0249 J				<0.000540	0.0298 J	<0.00120	**3.06**			<0.000380		
	MW-123	Apr-19		**0.0202**	0.0235				0.000931 J	0.0411 J	0.000440 J	**2.76**			0.000559 J		
	MW-123	Oct-19		**0.0263**	0.0228				<0.000540	0.647	<0.000240	**2.43 V**			0.000672 J		
	MW-123	Jun-20		**0.0185**	0.0328				<0.00149	0.0870 J	<0.00249	**3.19**			<0.000657		
	MW-123	Oct-20		**0.0195**	0.0317				<0.00149	0.0586 J	<0.00249	**3.23**			<0.000657		
	MW-124	Apr-18		0.00179 J	0.0203				<0.000540	**3.58**	<0.000240	**0.506**			<0.000380		
	MW-124	Oct-18		0.00214	0.0216 O1				<0.000540	**4.05**	0.000355 JB	**0.527**			<0.000380		
	MW-124	Apr-19		0.00175 J	0.0207				<0.000540	**3.87**	<0.000240	**0.535**			<0.000380		
	MW-124	Oct-19		0.00152 J	0.0194				<0.000540	**2.69**	<0.000240	**0.617**			<0.000380		
	MW-124	Jun-20		<0.00368	<0.0389				<0.00745	**6.01**	<0.0124	**0.440**			<0.00328		
	MW-124	Oct-20		0.00195 J	0.0214				<0.00149	**5.78**	<0.00249	**0.435**			<0.000657		
	OCD-1R	Apr-18		0.00396	0.0155				0.00148 J	0.246	<0.000240	**0.306**			0.00143 J		
	OCD-1R	Oct-18		0.00423	0.0198 J				0.00104 J	0.679	<0.00120	**1.47**			0.000628 J		
	OCD-1R	Apr-19		0.00271	0.0172				<0.000540	0.146	0.000336 J	**0.214**			0.00143 J		
	OCD-1R	Oct-19		0.00398	0.0247				0.000914 J	0.646	0.000264 J	**1.75**			0.00268		
	OCD-1R	Jun-20		0.00374	0.0202				<0.00149	**1.19**	<0.00249	**2.06**			<0.000657		
	OCD-1R	Oct-20		0.00318	0.0176 J				0.00201	0.435	<0.00249	**1.03**			0.000844 J		
	OCD-2A	Apr-18		**0.0112**	0.0201				<0.000540	**8.58**	<0.000240	**1.02**			0.000730 J		
	OCD-2A	Oct-18		0.00227	0.0266				<0.000540	**1.60**	0.000247 JB	**0.688**			<0.000380		
	OCD-2A	Apr-19		0.00207	0.0229				0.00138 J	0.860	<0.000240	0.180			<0.000380		
	OCD-2A	Oct-19		0.00146 J	0.0232				<0.000540	0.700	0.000258 J	**0.408**			0.00120 J		
	OCD-2A	Jun-20		0.00147 J	0.0206				<0.00149	**1.85**	<0.00249	**1.32**			<0.000657		
	OCD-2A	Oct-20		0.00376	0.0224				<0.00149	**4.39**	<0.00249	**1.16**			<0.000657		
	OCD-3	Apr-18		0.00258	0.0219				<0.000540	**1.82**	0.000364 JB	**0.412**			<0.000380		
	OCD-3	Oct-18		0.00175 J	0.0184				<0.000540	**1.36**	0.000312 JB	**0.248**			<0.000380		
	OCD-3	Apr-19		0.00117 J	0.0187				0.00115 J	0.401	<0.000240	0.0976			<0.000380		
	OCD-3	Oct-19		0.000962 J	0.0207				<0.000540	0.327	<0.000240	0.178			<0.000380		
	OCD-3	Jun-20		0.000791 J	0.0168 J				<0.00149	0.174	<0.00249	**0.511**			<0.000657		
	OCD-3	Oct-20		0.000998 J	0.0185 J				0.00151 J	0.317	<0.00249	0.199			<0.000657		
	OCD-4	Apr-18		0.00167 J	0.0223				0.00361	**1.15**	<0.000240	0.0438			0.000780 J		
	OCD-4	Oct-18		0.00318	0.0278				0.00118 J	**2.31**	0.000457 JB	**0.323**			<0.000380		
	OCD-4	Apr-19		0.00267	0.0240				0.00158 J	**2.42**	<0.000240	0.185			0.000969 J		
	OCD-4	Oct-19		0.00219	0.0272				<0.000540	**1.22**	<0.000240	**0.299**			<0.000380		
	OCD-4	Jun-20		0.00325	0.0229				<0.00149	**3.26**	<0.00249	**0.300**			<0.000657		
	OCD-4	Oct-20		0.00221	0.0245				<0.00149	**1.95**	<0.00249	**0.218**			<0.000657		
	OCD-5	Apr-18		0.00513	0.0257				<0.000540	**4.65**	<0.000240	0.182			<0.000380		
	OCD-5	Oct-18		0.00753	0.0255				<0.000540	**6.56**	<0.00120	**0.262**			0.000417 J		
	OCD-5	Apr-19		0.00640	0.0222				0.000901 J	**6.05**	0.000447 J	**0.205**			<0.000380		
	OCD-5	Oct-19		**0.0125**	0.0270				<0.000540	**5.39**	<0.000240	**0.367**			<0.000380		
	OCD-5	Jun-20		**0.0146**	0.0256				<0.00149	**8.25**	<0.00249	**0.279**			<0.000657		
	OCD-5	Oct-20		**0.0142**	0.0266				0.00194 J	**7.26**	<0.00249	**0.332**			<0.000657		
	OCD-6	Apr-18		0.00951	0.0203				<0.000540	**2.17**	<0.000240	**2.26**			0.000743 J		
	OCD-6	Oct-18		**0.0125**	0.0262				<0.000540	**6.45**	0.000466 J	**2.35**			<0.000380		
	OCD-6	Apr-19		0.00760	0.0233				0.000693 J	**2.13**	0.000310 JB	**2.27**			0.000644 J		
	OCD-6	Oct-19		0.00620	0.0188				<0.000540	0.397	<0.000240	**1.23**			0.00173 J		
	OCD-6	Jun-20		0.00686	0.0213				<0.00149	**2.80**	<0.00249	**2.28**			<0.000657		
	OCD-6	Oct-20		0.00831	0.0220				<0.00149	**4.53**	<0.00249	**2.54 V**			<0.000657		
	OCD-7AR	Apr-18		**0.110**	0.0133				0.00180 JB	**1.42**	0.000318 J	**2.49**			0.00181 J		
	OCD-7AR	Oct-18		**0.124**	0.0156				<0.000540	**9.57**	0.000362 J	**2.98**			0.00153 J		
	OCD-7AR	Apr-19		**0.0650**	0.0130				0.00123 J	0.583	0.00175 JB	**0.203**			0.00225		
	OCD-7AR	Oct-19		**0.108**	0.0165				0.000615 J	**12.0**	<0.000240	**2.96**			0.00161 J		
	OCD-7AR	Jun-20		**0.0978**	0.0138 J				<0.00149	**9.81**	<0.00249	**2.62**			0.00152 J		
	OCD-7AR	Oct-20		**0.0974**	0.0149 J				<0.00149	**10.4**	<0.00249	**2.63**			0.00159 J		
	OCD-7B	Mar-13		<0.00500	0.0160				<0.00500	<0.200	<0.00500	0.0246			<0.00500		
	OCD-7B	Apr-15		0.00294 J	0.0196 J				<0.00270	**3.52**	<0.00120	**0.710**			<0.00190		
	OCD-7B	Apr-17		0.00194 J	0.0179				<0.000540	**2.73**	<0.000240	**0.621**			<0.000380		
	OCD-7B	Apr-19		0.00184 J	0.0163				0.000918 J	**4.81**	0.000715 JB	**0.564**			<0.000380		
	OCD-8A	Apr-18		**0.0847**	0.0174	**0.770**	<0.000160	0.000833 J	<0.000540	**6.63**	0.000279 J	**3.85**	0.000103 J	0.0234	0.00112 J	0.000801 J	0.000500 J
	OCD-8A	Oct-18		**0.101**	0.0358	**0.853**	<0.000800	0.00489	0.00233	**11.2**	0.00152 JB	**3.52**	0.000139 J	0.0279	0.00141 J	<0.00165	0.00359 J
	OCD-8A	Apr-19		**0.0819**	0.0176	**0.812**	<0.000160	0.00110 J	0.000683 J	**7.45**	0.000252 JB	**3.68**	<0.0000490	0.0199	0.00114 J	0.000772 J	0.000740 J
	OCD-8A	Oct-19		**0.0374**	0.0270	**1.73**	0.000164 J	0.00260	0.00197 J	0.847	<0.00120	**1.20**	<0.0000490	0.0627	0.0313	0.0168 J	0.00218 J
	OCD-8A	Jun-20		**0.0630**	0.0160 J	**0.958**	<0.000478	0.00175 J	0.00323	**4.76**	<0.00249	**1.88**	<0.000100	0.0670	0.00134 J	<0.00754	<0.000986
	OCD-8A	Oct-20		**0.0669**	0.0196 J	**1.08**	<0.000478	0.00192 J	0.00203	**5.36**	<0.00249	**2.42**	<0.000100	0.0384	0.00156 J	<0.00754	0.00105 J
	OCD-8B	Apr-13		**<0.0250**	<0.0250				<0.0250	<1.00	**<0.0250**	**0.417**			<0.0250		
	OCD-8B	Apr-15		**0.0126**	0.0141				0.000872 J	0.239	0.000392 J	**5.98**			0.000525 J		
	OCD-8B	Apr-17		0.00912	0.0124				<0.000540	0.266	0.000256 J	**6.36**			<0.000380		
	OCD-8B	Apr-19		0.0100	0.0135				<0.000540	0.240	0.000392 J	**7.21 V**			0.000541 J		
Field East of Refinery	KWB-1A	Apr-18		0.00344	0.00777	**0.759**	<0.000160	0.00513	<0.000540	<0.0150	0.000342 J	**0.379**	<0.0000490	0.00815	0.000859 J	0.0197	0.0209
	KWB-1A	Oct-18		0.00263 J	0.00840	0.734	<0.000160	0.00583 J	<0.00270	<0.0750	<0.00120	**0.394**	0.000132 J	0.00823 J	<0.00190	0.0153 J	0.0210 J
	KWB-1A	Apr-19		0.00375	0.00849	**0.809**	<0.000160	0.00429	0.00152 JB	<0.0150	0.000374 JB	**0.341**	<0.0000490	0.00761	0.000736 J	0.0199	0.0238
	KWB-1A	Oct-19		0.00353	0.00810	0.749	<0.000160	0.0135	<0.000540	<0.0150	0.000643 JB	**0.498**	0.0000552 JB	0.00727	0.000491 J	0.0156	0.0233
	KWB-1A	Jun-20		0.00334	0.00826 J	0.723	<0.000478	0.00315	<0.00149	<0.0489	<0.00249	**0.305**	<0.000100	0.00630	<0.000657	0.0157 J	0.0230
	KWB-1A	Oct-20		0.00378	0.00798 J	0.712	<0.000478	0.00550	<0.00149	<0.0489	<0.00249	**0.399**	<0.000100	0.00769	<0.000657	0.0128 J	0.0236

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	KWB-1C	Apr-13			<0.0100	0.0146				<0.0100	<0.400	<0.0100	<0.0100			<0.0100		
	KWB-1C	Apr-15			0.00338	0.00918				<0.000540	0.0537 J	0.000320 J	**0.462**			0.000549 J		
	KWB-1C	Apr-17			0.00303	0.00955				<0.000540	<0.0150	<0.000240	**0.501**			<0.000380		
	KWB-1C	Apr-19			0.00347	0.00925				0.00162 JB	0.0269 J	0.000292 JB	**0.482**			<0.000380		
	KWB-7	Oct-17			0.00415	0.0915	0.460	<0.000160	0.00247	0.000670 J	**1.37**	0.000698 J	**3.22**	<0.0000490	0.00875	0.00100 J	0.00142 J	0.00129 J
	KWB-7	Oct-18			0.000371 J	0.0513	0.491	<0.000160	0.000457 J	0.000570 J	0.432	0.000317 J	**2.55**	0.000134 J	0.00144 J	<0.000380	0.00120 J	0.00118 JB
	KWB-7	Jun-20			0.00153 J	0.0692	0.418	<0.000478	<0.000477	<0.00149	0.678	0.00545	**2.57**	<0.000100	0.00133 J	<0.000657	<0.00754	0.00412 J
	KWB-7	Oct-20			<0.00368	0.0528 J	0.439	<0.00239	<0.00238	<0.00745	<0.244	<0.0124	**2.15**	<0.000100	<0.00476	<0.00328	**<0.0377**	<0.00493
	KWB-8	Oct-16			0.00109 J	0.139	0.665	<0.000160	<0.000260	0.000710 JB	0.672	0.00387	**0.997**	<0.0000490 J6	0.00102 JB	0.000475 J	0.000746 J	0.00122 J
	KWB-8	Apr-17			0.00129 J	0.106	0.632	<0.000160	0.000264 J	0.000851 J	**1.07**	0.00495	**1.83**	<0.0000490	0.00120 J	<0.000380	<0.000330	0.00157 J
	KWB-8	Oct-17			0.00135 J	0.130	**0.769**	<0.000160	<0.000260	0.00153 J	0.0804 J	0.00296	**0.510**	<0.0000490	0.000997 J	0.0463	<0.000330	0.00112 J
	KWB-8	Oct-20			0.00348	0.0706	0.661	<0.000478	0.000490 J	0.00626	**1.32**	0.00678	0.0432	<0.000100	0.00306	<0.000657	<0.00754	0.00115 J
	KWB-10R	Apr-17			**0.0157**	**3.82**				<0.000540	**5.21**	0.000971 J	0.157			<0.000380		
	KWB-10R	Oct-17			**0.0170**	**3.85**				<0.000540	**5.24**	0.000996 J	0.163			<0.000380		
	KWB-10R	Apr-18			**0.0169**	**3.91**				<0.000540	**4.57**	0.00320	0.170			<0.000380		
	KWB-10R	Oct-18			**0.0164**	**3.93**				<0.00270	**4.24**	0.00124 J	0.168			<0.00190		
	KWB-11A	Apr-18			**0.0112**	0.0210	0.460	<0.000160	0.00532	<0.000540	0.595	0.00131 J	**0.413**	<0.0000490	0.00463	0.00246	0.0140	0.00760
	KWB-11A	Oct-18			**0.0487**	0.0379	0.423	<0.000160	0.0143	<0.000540	**12.6**	0.00226	**1.98**	0.000140 J	0.00485	0.00182 J	0.0119	0.00855
	KWB-11A	Apr-19			0.00966	0.0450	0.444	<0.000160	0.0108	<0.000540	**3.95**	0.00137 J	**1.05**	<0.0000490	0.0137	0.000527 J	0.0148	0.00424 J
	KWB-11A	Jun-20			**0.0111**	0.0329	0.380	<0.000478	0.00371	<0.00149	**7.33**	0.00307 J	**0.570**	<0.000100	0.00429	0.00104 J	0.0143 J	0.00286 J
	KWB-11A	Oct-20			0.00403	0.0227	0.387	<0.000478	0.00271	<0.00149	**1.05**	<0.00249	**0.471**	<0.000100	0.00413	0.00134 J	0.0118 J	0.00555
	KWB-11B	Apr-18			0.00154 J	0.0130	0.131 J	<0.000160	<0.000260	<0.000540	<0.0150	<0.000240	0.000543 J	0.0000648 JB	<0.000350	0.0107	0.0111	0.00826
	KWB-11B	Oct-18			0.00122 J	0.0130	0.128 J	<0.000160	<0.000520	<0.00108	<0.0300	<0.000480	0.00248 JB	0.000180 J	0.00108 J	0.00911	0.0111 J	0.00776 J
	KWB-11B	Apr-19			0.00141 J	0.0137	0.161 JB	<0.000160	<0.000260	0.000800 J	<0.0150	0.000488 J	0.00172 J	<0.0000490	<0.000350	0.00969	0.0117	0.00783
	KWB-11B	Oct-19			0.00141 J	0.0137	0.100 J	<0.000160	<0.000260	0.000769 J	<0.0150	<0.000240	0.00109 J	0.0000867 JB	<0.000350	0.00915	0.0108	0.00915
	KWB-11B	Jun-20			0.00119 J	0.0144 J	0.0989 J	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00213 J	<0.000100	<0.000952	0.00865	0.0125 J	0.00855
	KWB-11B	Oct-20			<0.00368	<0.0389	0.111 J	<0.00239	<0.00238	<0.00745	<0.244	<0.0124	<0.00660	<0.000100	<0.00476	0.00750 J	**<0.0377**	0.00905 J
	KWB-12A	Oct-18			0.00135 J	0.0138	0.592	<0.000160	<0.000260	0.000549 J	<0.0150	<0.000240	0.000829 J	<0.0000490	0.000350 J	0.00302	0.0234	0.0120
	KWB-12A	Oct-19			0.00156 J	0.0144	0.568	<0.000160	<0.000260	<0.000540	0.0166 JB	0.000468 JB	0.00146 J	0.0000672 JB	0.000797 J	0.00368	0.0235	0.0113
	KWB-12A	Jun-20			0.00217	0.0182 J	0.552	<0.000478	<0.000477	<0.00149	0.195	<0.00249	0.0199	<0.000100	0.00213	0.00292	0.0268	0.0112
	KWB-12A	Oct-20			0.00148 J	0.0188 J	0.535	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00279 JB	<0.000100	<0.000952	0.00371	0.0267	0.00976
	KWB-12B	Apr-18			0.00155 J	0.00991	0.609	<0.000160	<0.000260	0.00116 J	0.0689 JB	0.000700 JB	0.00277 JB	0.0000606 J	0.000382 J	0.00311 B	**0.0301**	0.0125
	KWB-12B	Apr-18	FD		0.00174 J	0.0102	0.607	<0.000160	<0.000260	<0.000540	0.0363 J	<0.000240	0.00120 J	<0.0000490	0.000364 J	0.00329	**0.0304**	0.0125
	KWB-12B	Oct-18			0.00155 J	0.00876	0.602	<0.000160	<0.000260	<0.000540	0.0949 J	<0.000240	0.000451 J	<0.0000490	<0.000350	0.00277	0.0248	0.0112
	KWB-12B	Oct-18	FD		0.00157 J	0.00884	0.585	<0.000160	<0.000260	0.000608 J	<0.0150	<0.000240	0.000456 J	<0.0000490	0.000531 J	0.00294	0.0269	0.0117
	KWB-12B	Apr-19			0.00195 J	0.0128	0.606	<0.000160	<0.000260	0.000875 JB	0.137	0.000534 JB	0.0110	<0.0000490	0.000567 JB	0.00355	0.0299	0.0141
	KWB-12B	Apr-19	FD		0.00186 J	0.0100	0.601	<0.000160	<0.000260	0.000663 J	0.0433 JB	<0.000240	0.00208 J	0.000152 J	0.00230	0.00310	0.0279	0.0121
	KWB-12B	Oct-19			0.00176 J	0.00924	0.580	<0.000160	<0.000260	<0.000540	0.0196 JB	0.000455 JB	0.00193 J	0.0000601 JB	<0.000350	0.00343	0.0257	0.0123
	KWB-12B	Oct-19	FD		0.00175 J	0.00933	0.577	<0.000160	<0.000260	0.000731 J	0.0234 J	<0.000240	0.00406 J	0.0000574 JB	0.000403 J	0.00354	0.0281	0.0124
	KWB-12B	Jun-20			0.00169 J	0.00835 J	0.594	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00268	0.0275	0.0129
	KWB-12B	Jun-20	FD		0.00178 JB	0.00890 J	0.590	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.0162	0.00254	0.0266	0.0126
	KWB-12B	Oct-20			0.00189 J	0.00994 J	0.580	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.00146 J	0.00294	0.0287	0.0135
	KWB-12B	Oct-20	FD		0.00173 J	0.00955 J	0.577	<0.000478	<0.000477	0.00173 J	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00269	0.0268	0.0134
	KWB-P4	Apr-13																
	KWB-P4	Apr-15																
	KWB-P4	Apr-17																
	KWB-P4	Apr-19																
	MW-57	Apr-18			0.00550	0.0169				<0.000540	0.120 B	0.000325 JB	**0.481**			0.0140 B		
	MW-57	Oct-18			0.00512	0.0170				0.000612 J	0.209	<0.000240	0.0900			0.0120		
	MW-57	Apr-19			**0.0239**	0.150				0.0102	**8.63**	0.00950	**0.797**			0.0148		
	MW-57	Oct-19			0.00458	0.0175				0.000779 J	0.197	0.00603	0.0327			0.0166		
	MW-57	Jun-20			0.00366	0.0166 J				<0.00149	0.358	<0.00249	0.0473			0.0114		
	MW-57	Oct-20			**0.0157**	0.136				0.00879	**6.56**	0.0100	**0.333**			0.0120		
	MW-58	Oct-17			0.00648	1.15	0.471	<0.000160	<0.000260	<0.000540	0.385	0.00204	**0.319**	<0.0000490	0.00129 J	<0.000380	<0.00165	0.00422 J
	MW-58	Apr-18			0.00453	1.35	0.511	<0.000160	<0.000260	<0.000540	**1.54**	0.00185 J	**0.210**	<0.0000490	0.00105 J	<0.000380	<0.000330	0.00270 J
	MW-58	Oct-18			0.00336	1.29	0.348	<0.000160	<0.000260	0.000567 J	0.721	0.00167 J	**0.335**	<0.0000490	0.000975 J	<0.000380	0.000458 J	0.00305 J
	MW-58	Oct-19			0.00549	0.988	0.736	<0.000160	0.000479 J	0.000715 J	0.767	0.00437	0.0912	0.0000567 JB	0.00160 J	<0.000380	<0.000330	0.00441 J
	MW-111	Apr-18			**0.0137**	0.0620				<0.000540	**6.30**	<0.000240	**1.68**			0.000847 J		
	MW-111	Oct-18			0.00849 J	0.0674				<0.00270	**6.39**	<0.00120	**1.42**			<0.00190		
	MW-111	Apr-19			**0.0199**	0.364				0.0112	**13.1**	0.00704	**1.79**			0.000631 J		
	MW-111	Oct-19			0.00909	0.0915				0.00109 J	**6.90**	0.000687 JB	**1.37**			<0.000380		
	MW-111	Jun-20			**0.0183**	0.285				0.00596	**9.23**	0.00469 J	**1.61**			<0.000657		
	MW-112	Nov-14			0.00500	**7.60**				0.00210	**5.80**	0.00130 J	**0.310**			0.00180 J		
	MW-113	Apr-18			0.00199 J	0.0212				0.00154 J	0.454	<0.000240	**0.856**			<0.000380		
	MW-113	Apr-18	FD		0.00257	0.0245				0.00532 B	0.550	<0.000240	**0.892**			<0.000380		
	MW-113	Oct-18			0.00240	0.0200				<0.000540	0.487	<0.000240	**1.06 V**			<0.000380		
	MW-113	Oct-18	FD		0.00265	0.0228				<0.000540	0.522	0.000639 JB	**1.15**			<0.000380		
	MW-113	Apr-19			0.00292	0.0208				0.00192 JB	0.399	0.000845 JB	**0.871**			0.000782 J		
	MW-113	Apr-19	FD		0.00236	0.0227				<0.000540	0.388	<0.000240	**0.834**			<0.000380		
	MW-113	Oct-19			0.00241	0.0367				0.000800 J	0.552 B	0.000743 JB	**1.15**			0.00309		
	MW-113	Oct-19	FD		0.00237	0.0370				0.00111 J	0.544	0.000692 J	**1.12**			0.00151 J		
	MW-113	Jun-20			0.00185 J	0.0334				0.00155 J	**1.16**	<0.00249	**1.29**			<0.000657		
	MW-113	Jun-20	FD		0.00186 J	0.0313				<0.00149	**1.03**	<0.00249	**1.34**			<0.000657		
	MW-113	Oct-20			<0.000735	0.0438				<0.00149	0.253	<0.00249	**1.08**			<0.000657		
	MW-113	Oct-20	FD		<0.00368	0.0408 J				<0.00745	<0.244	<0.0124	**1.12**			<0.00328		
	MW-125	Apr-18			0.00440	0.00924				<0.000540	0.0793 J	<0.000240	**0.393**			0.00275		
	MW-125	Oct-18			0.00334	0.00858				<0.000540	<0.0150	<0.000240	**0.390**			0.00238		
	MW-125	Apr-19			0.00386	0.00849				0.000670 J	0.0265 J	<0.000240	**0.405**			0.00433		
	MW-125	Oct-19			0.00354	0.00897				<0.000540	<0.0150	0.000326 JB	**0.415**			0.00403		
	MW-125	Jun-20			0.00388	0.00983 J				<0.00149	<0.0489	<0.00249	**0.431**			0.00289		
	MW-125	Oct-20			0.00367	0.0101 J				<0.00149	<0.0489	<0.00249	**0.430**			0.00180 J		
	MW-126A	Apr-18			0.00200 J	0.0170				<0.000540	0.653	0.000242 J	**0.851**			<0.000380		
	MW-126A	Oct-18			0.00135 J	0.0153				0.00132 J	0.537	<0.000480	**0.642**			<0.000760		
	MW-126A	Apr-19			0.00122 J	0.0151				0.00136 JB	0.431	<0.000240	**0.776**			<0.000380		
	MW-126A	Oct-19			0.00261	0.0205				0.00105 J	**2.05**	0.000799 J	**0.649**			<0.000380		
	MW-126A	Jun-20			0.00110 J	0.0157 J				<0.00149	0.437	<0.00249	**0.617**			<0.000657		
	MW-126A	Oct-20			0.00225	0.0158 J				<0.00149	**1.78**	<0.00249	**0.707**			<0.000657		
	MW-126B	Apr-18			0.00339	0.00918				<0.000540	<0.0150	<0.000240	0.0516			0.00364		
	MW-126B	Oct-18			0.00387 J	0.00911				0.00139 J	<0.0300	<0.00120	0.0593			0.00383 J		
	MW-126B	Apr-19			0.00400	0.00999				0.00150 JB	0.0379 J	0.000323 JB	0.0476			0.00332		
	MW-126B	Oct-19			0.00358	0.00916				0.000543 J	<0.0150	<0.000240	0.0434			0.00305		
	MW-126B	Jun-20			0.00346	0.0100 J				<0.00149	<0.0489	<0.00249	0.0425			0.00276		
	MW-126B	Oct-20			0.00367	0.00961 J				<0.00149	<0.0489	<0.00249	0.0481			0.00364		
	MW-127	Oct-17			**0.0114**	0.212				0.00109 J	**1.39**	0.000965 J	0.135			<0.000380		
	MW-127	Apr-18			0.00381	0.0682				0.00370 B	0.144 B	<0.000240	0.106			<0.000380		
	MW-127	Oct-18			0.00439	0.0589				<0.00108	0.0981 J	<0.000480	0.121			<0.000760		
	MW-127	Apr-19			0.00451	0.0960				0.000909 JB	0.0634 J	0.000461 JB	0.113			<0.000380		
	MW-128	Oct-17			**0.0554**	0.0610				0.000618 J	**3.07**	0.000404 J	**2.09**			0.00122 J		
	MW-128	Apr-18			**0.0566**	0.0728				0.00278	**4.19**	0.00257 B	**2.04**			0.000436 JB		
	MW-128	Oct-18			**0.0447**	0.0604				<0.000540	**2.40**	0.000261 J	**1.78 O1V**			<0.000380		
	MW-128	Apr-19			**0.0546**	0.0910				0.00303 B	**4.19**	0.00535	**2.01**			0.000397 J		
	MW-129	Apr-16			**0.0272**	0.593				<0.00270	**5.49**	<0.00120	**1.10**			<0.00190		
	MW-129	Oct-16			**0.0236**	0.607				0.000625 JB	**4.79**	0.000529 J	**1.00**			<0.000380		
	MW-129	Apr-17			**0.0226**	0.627				<0.000540	**5.10**	<0.000240	**0.987**			<0.000380		
	MW-129	Apr-18			**0.0252**	0.516				<0.000540	**5.42**	<0.000240	**1.01**			<0.000380		

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	MW-130	Apr-18		0.00400	0.0179				<0.000540	0.0297 J	<0.000240	0.0937			0.0162		
	MW-130	Oct-18		0.00341	0.0159				<0.000540	0.0289 J	<0.000240	0.0888			0.00722		
	MW-130	Apr-19		0.00385	0.0203				<0.000540	0.0697 J	0.000361 JB	0.101			0.0137		
	MW-130	Oct-19		0.00400	0.0198				0.000858 J	0.346	0.000349 J	0.101			0.00478		
	MW-130	Jun-20		0.00375	0.0168 J				<0.00149	0.0745 J	<0.00249	0.0968			0.00436		
	MW-130	Oct-20		0.00374	0.0173 J				0.00174 J	0.0826 J	<0.00249	0.101			0.00581		
	MW-131	Apr-17		**0.0214**	**2.75**				<0.000540	**1.29**	<0.000240	**0.294**			<0.000380		
	MW-131	Oct-17		**0.0223**	1.98				<0.000540	**1.56**	<0.000240	**0.283**			<0.000380		
	MW-131	Oct-19		**0.0261**	1.65				<0.000540	**1.55**	0.000845 JB	**0.293**			<0.000380		
	MW-131	Jun-20		**0.0241**	**2.39**				<0.00149	**1.35**	<0.00249	**0.294**			<0.000657		
	MW-133	Nov-14		**0.0190**	0.130				0.000600 J	**3.50**	0.000800 J	**0.380**			<0.000380		
	MW-133	Apr-15		0.00897	0.157				<0.000540	**5.53**	0.00145 J	**0.312**			0.00124 J		
	MW-134	Apr-18		0.00410	0.00963				<0.000540	<0.0150	<0.000240	0.0144			0.00560		
	MW-134	Apr-18	FD	0.00465	0.0100				0.00883 J3J5	0.0683 J	0.000274 J	0.0135			0.00665		
	MW-134	Oct-18		0.00394	0.00921				<0.000540	<0.0150	<0.000240	0.0119			0.00564		
	MW-134	Oct-18	FD	0.00388	0.00989				<0.000540	<0.0150	<0.000240	0.0134			0.00539		
	MW-134	Apr-19		0.00471	0.0122				0.00278 B	0.193	0.000688 JB	0.0792			0.00747		
	MW-134	Apr-19	FD	0.00418	0.0122				0.00108 JB	0.183	0.00115 JB	0.0600			0.00829		
	MW-134	Oct-19		0.00417	0.00988				0.000807 J	0.0171 JB	0.000450 JB	0.0383			0.00818		
	MW-134	Oct-19	FD	0.00409	0.00949				0.00104 J	0.0163 J	<0.000240	0.0303			0.00704		
	MW-134	Jun-20		0.00368	0.00896 J				<0.00149	<0.0489	<0.00249	0.00741			0.00631		
	MW-134	Jun-20	FD	0.00384	0.00932 J				<0.00149	<0.0489	<0.00249	0.00677			0.00602		
	MW-134	Oct-20		0.00362	0.0101 J				<0.00149	0.0916 J	<0.00249	0.0370			0.00592		
	MW-134	Oct-20	FD	0.00356	0.0101 J				<0.00149	0.0671 J	<0.00249	0.0339			0.00527		
	MW-135	Apr-18		0.00348	0.0186				0.00386 B	0.205 B	0.000510 J	0.0114			0.0254		
	MW-135	Oct-18		0.00335 J	0.0422				0.00276 J	0.649	0.000966 J	0.0380			0.0298		
	MW-135	Apr-19		0.00383	0.0199				0.00245 B	0.205	0.000746 JB	0.0188			0.0334		
	MW-135	Oct-19		0.00335	0.00928				0.00140 J	0.221 B	0.00194 JB	0.0277			0.0200		
	MW-135	Jun-20		0.00326	0.0158 J				<0.00149	0.203	<0.00249	0.0119			0.0221		
	MW-135	Oct-20		<0.00368	<0.0389				<0.00745	0.745	<0.0124	0.0315			0.0186		
	MW-145	Oct-20																
	MW-145	Oct-20	FD															
	MW-146	Oct-20																
	MW-147	Oct-20																
	MW-148	Oct-20																
	RA-4196	Apr-18																
	RA-4196	Oct-18																
	RA-4196	Apr-19																
	RA-4196	Oct-19																
	RA-4196	Jun-20																
	RA-4196	Oct-20																
	RA-4798	Apr-18																
	RA-4798	Oct-18																
	RA-4798	Apr-19																
	RA-4798	Oct-19																
	RA-4798	Jun-20																
	RA-4798	Oct-20																
	RW-12R	Apr-17		0.000503 J	0.0409				0.0359	0.241	0.00193 J	**0.398**			<0.000380		
	RW-12R	Apr-18		0.000291 J	0.0387				0.00973	0.0459 J	0.00104 J	**0.718**			0.000554 J		
	RW-12R	Apr-19		0.00109 J	0.0354				0.00771 B	0.0800 J	0.00177 JB	**1.28**			0.000508 J		
	RW-12R	Jun-20		<0.000735	0.0342				**0.0557**	0.150	<0.00249	**1.39**			<0.000657		
	RW-13R	Apr-16		0.00922 J	0.0165				<0.00270	0.572	<0.00120	**1.26**			<0.00190		
	RW-13R	Apr-18		0.000839 J	0.0475				0.00357	0.349	0.000602 J	**0.985**			0.00161 J		
	RW-18A	Apr-17		0.00331	0.0107				<0.000540	<0.0150	<0.000240	0.000927 J			0.00406		
	RW-18A	Apr-18		0.00278	0.0105				<0.000540	<0.0150	<0.000240	0.00299 J			0.00321		
	RW-18A	Apr-19		0.00293	0.0117				0.00130 JB	0.0191 J	0.000246 JB	0.000480 J			0.00449		
	RW-18A	Jun-20		0.00451	0.0243				0.00223	**3.06**	0.00276 J	0.0307			0.00475		
	RW-20	Apr-15		0.00375 J	0.527				<0.00270	**1.75**	0.00354 J	**0.872**			<0.00190		
	RW-22	Apr-15		0.00248	0.816				0.00320	0.140	0.00397	**0.845**			0.00234		
NCL	MW-18	Apr-17		0.00365	0.0183	**1.71**	<0.000160	0.000321 J	0.00222	<0.0150	<0.000240	0.00474 JB	<0.0000490	0.00120 J	0.0151	0.0250	0.0195
	MW-18	Apr-18		0.00413	0.0130	**1.40**	<0.000160	<0.000260	0.000973 J	<0.0150	0.000243 J	0.0125	<0.0000490	0.00198 J	0.0148	**0.0378**	0.0178
	MW-18	Apr-19		0.00342	0.0184	**1.60**	<0.000160	<0.000260	0.00228	0.0171 JB	<0.000240	0.00442 J	0.0000529 J	0.000907 J	0.0167	0.0283	0.0174
	MW-18	Jun-20		0.00271	0.0126 J	**2.52**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.0169	<0.000100	0.00103 J	0.00739	**0.0451**	0.0180
	MW-45	Apr-18		0.00591	0.0141	0.611	<0.000160	<0.000260	<0.000540	**1.33**	0.00179 J	**0.457**	<0.0000490	0.00452	<0.000380	0.000779 J	0.000586 J
	MW-45	Oct-18		0.00327	0.0156 B	0.670	0.000394 JB	<0.000260	<0.000540	**1.58**	0.00109 JB	**0.599**	<0.0000490	0.00378	<0.000380	0.000654 J	0.000278 J
	MW-45	Apr-19		0.00574	0.0171	0.643	<0.000160	<0.000260	<0.000540	**1.43**	0.00235	**0.481**	<0.0000490	0.00485	<0.000380	0.00135 J	0.000729 J
	MW-45	Oct-19		0.00373	0.0150	0.663	<0.000160	<0.000260	0.000546 JB	**1.64**	0.000564 JB	**0.432**	<0.0000490	0.00399 B	<0.000380	<0.000330	0.00116 J
	MW-45	Jun-20		0.00395	0.0157 J	0.573	<0.000478	<0.000477	<0.00149	**1.02**	<0.00249	**0.481**	<0.000100	0.00525	<0.000657	<0.00754	<0.000986
	MW-45	Oct-20		0.00493	0.0149 J	0.620	<0.000478	<0.000477	<0.00149	**1.26**	<0.00249	**0.526**	<0.000100	0.00569	<0.000657	<0.00754	0.00106 J
	MW-53	Apr-16		0.00193 J	0.0308				<0.00270	<0.0750	<0.00120	**1.07**			0.00617 J		
	MW-53	Apr-17		0.00166 J	0.0201				<0.000540	<0.0150	<0.000240	**1.60**			0.00281		
	MW-53	Apr-18		0.00259	0.0423				0.000742 JJ3J4	0.0922 J	0.000794 J	**2.34**			0.000729 J		
	MW-53	Apr-19		0.00161 J	0.0190				<0.000540	0.0333 J	0.000346 J	**0.799**			<0.000380		
	MW-53R	Oct-20		0.00190 J	0.0482				0.00177 J	0.426	<0.00249	**0.474**			<0.000657		
	MW-54A	Apr-18		0.00456	0.0161				<0.000540 J3J4	0.0500 J	0.000449 J	**0.531**			0.000467 J		
	MW-54A	Oct-18		0.00410	0.0165				<0.000540	0.0601 J	<0.000240	**0.541**			<0.000380		
	MW-54A	Apr-19		0.00339	0.0139				<0.000540	0.0627 J	0.000375 J	**0.499**			<0.000380		
	MW-54A	Oct-19		0.00506	0.0155				0.00121 JB	0.0952 JB	0.000304 JB	**0.581**			<0.000380		
	MW-54A	Jun-20		0.00452	0.0168 J				<0.00149	0.188	<0.00249	**0.589**			<0.000657		
	MW-54A	Oct-20		0.00516	0.0161 J				<0.00149	0.121	<0.00249	**0.625**			<0.000657		
	MW-54B	Apr-13		<0.00500	0.0183				<0.00500	<0.200	<0.00500	0.145			<0.00500		
	MW-54B	Apr-15		0.00220	0.0165				<0.000540	0.0520 J	<0.000240	0.165			0.000400 J		
	MW-54B	Apr-17		0.00181 J	0.0158				<0.000540	<0.0150	<0.000240	**0.253**			0.000720 J		
	MW-54B	Apr-19		0.00251	0.0161				<0.000540	0.116	0.000628 J	0.197			0.000402 J		
	MW-55	Apr-18		0.00661	0.0128	**1.50**	<0.000160	0.000359 J	0.000955 J	0.0331 J	0.000370 J	0.139	0.000151 J	0.00581	0.00444	**0.0503**	0.0190
	MW-55	Oct-18		0.00584	0.0109 B	**1.45**	0.000388 JB	<0.000260	0.000540 J	0.0292 J	0.000240 JB	0.114	<0.0000490	0.00678	0.00570	**0.0504**	0.0186
	MW-55	Apr-19		0.00596	0.0114	**1.43**	<0.000160	<0.000260	0.000686 J	0.0504 JB	<0.000240	0.0855	0.000190 J	0.00592	0.00564	**0.0624**	0.0204
	MW-55	Oct-19		0.00642	0.0109 B	**1.05**	<0.000160	0.000276 J	<0.000540	0.0212 JB	0.00129 JB	0.144	<0.0000490	0.00777 B	0.00225	**0.0503**	0.0198
	MW-55	Jun-20		0.00632	0.0119 J	**0.979**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.148	<0.000100	0.00713	0.00121 J	**0.0549**	0.0189
	MW-55	Oct-20		0.00684	0.0131 J	0.695	<0.000478	<0.000477	0.00201	0.0508 J	<0.00249	0.168	<0.000100	0.00670	0.00120 J	**0.0364**	0.0186
	MW-56	Apr-17		0.00642	0.0157				<0.000540	<0.0150	0.000467 J	**0.320**			0.00325		
	MW-56	Apr-18		0.00731	0.0119				0.0102	0.0355 J	0.000487 J	**0.307**			0.000796 J		
	MW-56	Apr-19		0.00631	0.0132				<0.000540	0.0310 J	0.000718 J	**0.325**			0.00217		
	MW-56	Jun-20		0.00529	0.0104 J				<0.00149	<0.0489	<0.00249	**0.302**			0.000968 J		
	MW-108	Apr-18		0.00398	0.0468				0.00323	0.174	0.00243	0.0342			0.000702 J		
	MW-108	Oct-18		0.00274	0.0384				0.00310	**4.57**	0.00279 B	0.0540			<0.000380		
	MW-108	Apr-19		0.00196 J	0.0304				0.00325	0.322	0.00135 J	0.0255			0.000390 J		
	MW-108	Oct-19		0.00107 J	0.0402				0.00132 J	0.273	0.00118 J	0.0633			<0.000380		
	MW-108	Jun-20		0.00111 J	0.0411				<0.00149	0.230	<0.00249	0.0401			<0.000657		
	MW-108	Oct-20		0.00115 J	0.0469				<0.00149	<0.0489	<0.00249	0.0593			<0.000657		
	NCL-31	Apr-18		**0.0129**	0.0150				0.00375	0.998	0.000361 J	**2.05**			<0.000380		
	NCL-31	Oct-18		**0.0241**	0.0172 B				<0.000540	**1.03**	0.000447 JB	**2.02**			<0.000380		
	NCL-31	Apr-19		0.00772	0.0137				0.000759 J	0.821	0.000881 J	**1.93**			<0.000380		
	NCL-31	Oct-19		0.00915	0.0175				0.000613 J	0.0875 J	0.000376 J	**1.46**			0.00502		
	NCL-31	Jun-20		**0.0135**	0.0134 J				<0.00149	**1.13**	<0.00249	**2.24**			<0.000657		
	NCL-31	Oct-20		**0.0120**	0.0129 J				<0.00149	0.689	<0.00249	**2.15**			<0.000657		

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
NCL	NCL-32	Apr-18		0.00443	0.0199				0.000813 J	0.0806 J	0.000723 J	**0.926**			0.00138 J		
	NCL-32	Oct-18		0.00306	0.0198 B				0.00201	0.339	0.00224 B	**1.34**			0.00134 J		
	NCL-32	Apr-19		0.00257	0.0172				<0.000540	**1.84**	0.000470 J	**1.14**			0.00222		
	NCL-32	Oct-19		0.00213	0.0153				0.000548 J	0.0391 J	0.000373 J	**1.50**			0.00249		
	NCL-32	Jun-20		0.00203	0.0165 J				<0.00149	<0.0489	<0.00249	**1.31**			0.00321		
	NCL-32	Oct-20		0.00236	0.0160 J				<0.00149	0.0494 J	<0.00249	**1.73**			0.00271		
	NCL-33	Apr-18		0.00382	0.0223				<0.000540	**1.64**	<0.000240	0.117			0.000746 J		
	NCL-33	Oct-18		0.00303	0.0244				<0.000540	**2.02**	<0.000240	0.119			0.000474 J		
	NCL-33	Apr-19		0.00327	0.0280				<0.000540	**1.97**	0.000403 J	0.106			0.000405 J		
	NCL-33	Oct-19		0.00457	0.0280				0.000581 J	**2.91**	0.000470 J	0.157			0.00132 J		
	NCL-33	Jun-20		0.00452	0.0289				<0.00149	**3.52**	<0.00249	0.194			0.00130 J		
	NCL-33	Oct-20		0.00531	0.0231				<0.00149	**4.03**	<0.00249	0.188			0.00144 J		
	NCL-34A	Apr-18		0.00175 J	0.452				<0.000540	0.0183 J	0.000440 J	0.0204			0.000485 J		
	NCL-34A	Oct-18		0.000692 J	0.376				<0.000540	<0.0150	<0.000240	0.0191			0.000423 J		
	NCL-34A	Apr-19		0.000663 JJ6	0.966 V				<0.000540	0.0216 J	<0.000240	0.0158 O1			**0.101 J3J6O1**		
	NCL-34A	Oct-19		0.000719 J	0.293				0.000842 JB	0.0403 JB	0.000906 JB	0.0318			0.000403 J		
	NCL-34A	Jun-20		0.000811 J	0.242				<0.00149	<0.0489	<0.00249	0.0416			<0.000657		
	NCL-44	Apr-18		**0.0387**	0.0230				0.00120 J	**1.03**	0.000489 J	**0.884**			<0.000380		
	NCL-44	Oct-18		**0.0301**	0.0201 B				<0.000540	**1.13**	0.000618 JB	**0.879**			<0.000380		
	NCL-44	Apr-19		**0.0245**	0.0215				0.000595 J	0.792	0.000443 J	**0.879**			0.000878 J		
	NCL-44	Oct-19		**0.0293**	0.0205				<0.000540	**1.16**	<0.000240	**0.912**			0.000383 J		
	NCL-44	Jun-20		**0.0305**	0.0218				<0.00149	**1.09**	<0.00249	**0.842**			<0.000657		
	NCL-44	Oct-20		**0.0211**	0.0201				0.00369	0.641	<0.00249	**0.820**			<0.000657		
	NCL-49	Apr-18		0.00283	0.0138				0.000688 JJ3J4	<0.0150	0.000258 J	0.00310 J			0.0111		
	NCL-49	Apr-18	FD	0.00254	0.0136				<0.000540 J3J4	<0.0150	<0.000240	0.00462 J			0.0125		
	NCL-49	Oct-18		0.00156 J	0.0127				<0.000540	<0.0150	<0.000240	0.000358 J			0.00739		
	NCL-49	Oct-18	FD	0.00154 J	0.0115				<0.000540	<0.0150	<0.000240	<0.000250			0.00624		
	NCL-49	Apr-19		0.00148 J	0.0135				0.000545 J	0.0420 J	0.000438 J	0.000612 JB			0.00606		
	NCL-49	Apr-19	FD	0.00157 J	0.0128				<0.000540	0.128	<0.000240	0.00721			0.00630		
	NCL-49	Oct-19		0.00144 J	0.0136 B				0.00113 JB	0.0164 JB	0.000412 JB	0.000870 JB			0.00551		
	NCL-49	Oct-19	FD	0.00139 J	0.0133 J				<0.00270	<0.0750	<0.00120	<0.00125 J3J5			0.00652 J		
	NCL-49	Jun-20		0.00135 J	0.0145 J				<0.00149	<0.0489	<0.00249	0.0222			0.00832		
	NCL-49	Jun-20	FD	0.00123 J	0.0126 J				<0.00149	<0.0489	<0.00249	0.00204 J			0.00717		
	NCL-49	Oct-20		0.00141 J	0.0129 J				0.00153 J	<0.0489	<0.00249	<0.00132			0.00873		
	NCL-49	Oct-20	FD	0.00155 J	0.0123 J				<0.00149	<0.0489	<0.00249	<0.00132			0.00920		
North Refinery	MW-23	Apr-18		0.00511	**9.72**				0.000601 JB	0.0297 J	0.00227	0.0750			0.000496 J		
	MW-23	Oct-18		0.00455	**8.55**				<0.000540	0.0527 J	0.00657	0.0630			**0.0661**		
	MW-23	Apr-19		0.00499	**9.47**				0.000969 JB	0.0226 J	0.00230	0.0709			0.00135 J		
	MW-23	Oct-19		0.00587	**9.44**				<0.000540	0.0573 J	0.0150	0.0696			0.000501 J		
	MW-23	Jun-20		0.00595	**9.81 V**				<0.00149	0.0693 J	0.00484 J	0.0692			<0.000657		
	MW-23	Oct-20		0.00627	**12.3**				<0.00149	0.0501 J	0.00712	0.0769			<0.000657		
	MW-29	Apr-18		0.00154 J	0.0192				<0.000540	0.0804 J	0.000379 J	**0.483**			<0.000380		
	MW-29	Oct-18		0.00209	0.0289				<0.000540	<0.0150	<0.000240	**0.341**			0.0275		
	MW-29	Apr-19		0.00173 J	0.0169				<0.000540	0.174 B	<0.000240	**0.534**			<0.000380		
	MW-29	Oct-19		**0.0161**	0.0171				<0.000540	**4.34**	<0.000240	**0.586**			0.000458 J		
	MW-29	Jun-20		0.00842	0.0172 J				<0.00149	0.0632 J	<0.00249	**0.258**			<0.000657		
	MW-29	Oct-20		**0.0170**	0.0188 J				<0.00149	0.294	<0.00249	**0.233 V**			0.000944 J		
	MW-39	Apr-18		**0.0110**	0.0159				0.00126 JB	0.0868 J	0.00139 J	0.0181			<0.000380		
	MW-39	Oct-18		0.00800	0.0687				<0.000540	<0.0150	0.000324 J	0.0200			0.0389		
	MW-39	Apr-19		0.00933	0.0590				<0.000540	0.0175 J	0.000354 J	0.0267			0.000668 J		
	MW-39	Oct-19		0.00690	0.0118				<0.000540	<0.0150	<0.000240	0.0282			<0.000380		
	MW-39	Jun-20		0.00757	0.0145 J				<0.00149	<0.0489	<0.00249	0.0410			<0.000657		
	MW-39	Oct-20		0.00755	0.0130 J				<0.00149	<0.0489	<0.00249	0.0546			<0.000657		
	MW-40	Apr-17		0.000786 J	0.0249				<0.000540	0.0151 J	0.000660 J	0.0241			**0.0704**		
	MW-40	Apr-18		0.000656 J	0.0227				0.000593 JB	0.0289 J	0.000415 J	0.0161			<0.000380		
	MW-40	Apr-19		0.000873 J	0.0234				<0.000540	0.0848 J	0.000467 JB	0.0166			<0.000380		
	MW-40	Jun-20		<0.000735	0.0218				<0.00149	0.181	<0.00249	0.0270			<0.000657		
	MW-41	Apr-17		0.00391	0.0154				<0.000540	0.0429 J	0.000578 J	**0.737**			0.00229		
	MW-41	Apr-18		0.00729	0.0206				<0.000540	0.0230 J	0.000304 J	**1.03**			0.000470 J		
	MW-41	Apr-19		0.00673	0.0370				<0.000540	0.0802 JB	0.000601 J	**0.570**			0.000498 J		
	MW-41	Jun-20		**0.0107**	0.0183 J				<0.00149	<0.0489	<0.00249	**0.857**			<0.000657		
	MW-42	Apr-17		0.00486	0.0182				<0.000540	<0.0150	0.000252 J	0.177			0.00222		
	MW-42	Apr-18		0.00477	0.0206				<0.000540	0.0216 J	0.000406 J	0.123			<0.000380		
	MW-42	Apr-19		0.00516	0.0196				0.000790 J	0.0282 JB	0.000332 J	0.120			<0.000380		
	MW-42	Jun-20		0.00520	0.0191 J				<0.00149	0.233	<0.00249	0.144			<0.000657		
	MW-43	Apr-18		**0.0124**	0.186	**1.32**	<0.000160	<0.000260	0.00246	0.0572 JB	0.000412 JB	0.154	<0.0000490	0.00839	0.00143 JB	<0.000330	0.00181 J
	MW-43	Oct-18		0.00997	0.137	**1.22**	<0.000160	<0.000260	<0.000540	0.0287 J	0.000253 J	0.151	<0.0000490	0.00608	0.000723 J	<0.000330	0.00207 J
	MW-43	Apr-19		0.00725	0.449	**1.14**	<0.000160	<0.000260	0.00113 JB	0.0770 J	0.00106 J	0.184	<0.0000490	0.00695	0.00568	<0.000330	0.00197 J
	MW-43	Oct-19		**0.0101**	0.171	**0.964**	<0.000160	<0.000260	0.00120 J	0.285	0.000752 J	**0.361**	0.0000655 JB	0.00654	0.00140 J	0.00403 J	0.0127
	MW-43	Jun-20		0.00612	0.443	**0.781**	<0.000478	<0.000477	<0.00149	0.375	<0.00249	**0.297**	<0.000100	0.00536	<0.000657	<0.00754	0.00385 J
	MW-43	Oct-20		0.00541	0.801	**0.770**	<0.000478	<0.000477	0.00150 J	0.106	<0.00249	**0.252**	<0.000100	0.00410	<0.000657	<0.00754	0.00249 J
	MW-59	Apr-17		**0.0234**	0.0202				<0.000540	0.123	<0.000240	**0.440**			<0.000380		
	MW-59	Apr-18		**0.0240**	0.0236				<0.000540	0.102 B	<0.000240	**0.448**			<0.000380		
	MW-59	Apr-19		**0.0213**	0.0293				0.000709 JB	0.0987 J	0.000432 J	**0.409**			<0.000380		
	MW-59	Jun-20		**0.0360**	0.0184 J				<0.00149	0.0703 J	<0.00249	**0.369**			<0.000657		
	MW-60	Apr-18		0.00895	0.0188	0.537	<0.000160	0.000365 J	<0.000540	0.0975 JB	0.000342 JB	**0.291**	<0.0000490	0.000820 J	<0.000380	0.00208 J	0.000298 J
	MW-60	Apr-18	FD	0.00863	0.0188	0.531	<0.000160	<0.000260	<0.000540	0.0606 J	0.000350 J	**0.279**	<0.0000490	0.00260	<0.000380	0.00211 J	0.000362 J
	MW-60	Oct-18		0.00751	0.0193	0.690	<0.000160	0.000515 J	<0.000540	0.204	0.000520 J	**0.270**	<0.0000490	0.000952 J	<0.000380	0.00140 J	0.000370 J
	MW-60	Oct-18	FD	0.00684	0.0172	0.677	<0.000160	0.000409 J	<0.000540	0.190	0.000289 J	**0.268**	<0.0000490	0.000846 J	<0.000380	0.00143 J	0.000313 J
	MW-60	Apr-19		0.00433	0.0181	**0.780**	<0.000160	<0.000260	<0.000540	0.102	0.000291 J	**0.205**	<0.0000490	0.000946 J	<0.000380	0.00114 J	0.000385 J
	MW-60	Apr-19	FD	0.00454	0.0205	**0.794**	<0.000160	<0.000260	<0.000540	0.0911 J	0.000630 J	0.200	<0.0000490	0.000941 J	<0.000380	0.00101 J	0.000224 J
	MW-60	Oct-19		**0.0526**	0.0187	0.495	<0.000160	0.000356 J	0.000854 J	0.251	0.000344 JB	**0.226**	0.0000583 JB	0.0121	<0.000380	0.00155 J	0.000654 JB
	MW-60	Oct-19	FD	**0.0126 J3J5O1**	0.0186	0.498	0.000791 J	0.000882 J	0.00130 J	0.276 B	0.00162 JB	**0.223 O1**	0.0000624 JB	0.00227	**0.0592 J3J6O1**	0.00269 J	0.00115 J
	MW-60	Jun-20		0.00590	0.0194 J	0.447	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.237**	<0.000100	0.00132 J	<0.000657	<0.00754	<0.000986
	MW-60	Jun-20	FD	0.00559	0.0188 J	0.432	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.229**	<0.000100	0.00121 J	<0.000657	<0.00754	<0.000986
	MW-60	Oct-20		0.00621	0.0203	0.465	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	**0.227**	<0.000100	0.00161 J	<0.000657	<0.00754	<0.000986
	MW-60	Oct-20	FD	0.00634	0.0193 J	0.461	<0.000478	<0.000477	<0.00149	<0.0489	0.00319 J	**0.222**	<0.000100	0.00110 J	<0.000657	<0.00754	<0.000986
	MW-61	Apr-18		0.00249	0.0288				0.000703 J	0.0382 JB	0.00174 JB	0.0184			0.000498 JB		
	MW-61	Oct-18		0.00157 J	0.0316				<0.00270	<0.0750	0.00145 J	0.0190 JB			<0.00190		
	MW-61	Apr-19		0.00215	0.0397				0.000543 JB	0.0304 J	0.00185 J	0.0181			**0.0628**		
	MW-61	Oct-19		0.00166 J	0.0542				0.000662 J	0.0443 JB	0.00197 JB	0.0261			0.00817		
	MW-61	Jun-20		0.00296	0.0482				<0.00149	<0.0489	0.00396 J	0.0197			<0.000657		
	MW-61	Oct-20		0.00299	0.0460				0.00151 J	<0.0489	0.00337 J	0.0141 B			<0.000657		
	MW-62	Apr-18		0.00849	0.0467				0.000842 J	<0.0150	0.000380 JB	0.00452 J			<0.000380		
	MW-62	Oct-18		0.00419 J	0.0529				<0.00270	0.0752 J	<0.00120	0.00287 JB			<0.00190		
	MW-62	Apr-19		0.00861	0.0632				0.000825 JB	0.0208 J	0.000399 J	0.00442 J			0.0369		
	MW-62	Oct-19		**0.0446 J6**	0.0472				0.000937 J	0.0794 J	0.00145 J	0.00462 J			0.00186 JJ3J6		
	MW-62	Jun-20		**0.0426**	0.0608				<0.00149	<0.0489	<0.00249	0.00669			<0.000657		
	MW-62	Oct-20		**0.0451**	0.0535				<0.00149	<0.0489	<0.00249	0.00657 B			<0.000657		
	MW-62R	Oct-20		**0.0788**	0.129				0.00169 J	**2.90**	<0.00249	**1.09**			<0.000657		
	MW-67	Oct-17		**0.0103**	0.0906	0.464	<0.000160	<0.000260	0.000639 J	0.0172 J	0.00112 J	0.0986	<0.0000490	0.000648 J	<0.000380	<0.000330	0.000547 J
	MW-67	Apr-18		**0.0107**	0.120	0.456	<0.000160	<0.000260	0.000927 JJ3J4	0.0743 J	0.00171 J	0.0943	<0.0000490	0.000828 J	0.000518 J	<0.000330	0.000584 J
	MW-67	Oct-18		0.00516	0.0745	0.401	0.000220 JB	<0.000260	0.000568 J	0.0289 J	0.00192 JB	0.126	0.000120 J	0.000595 J	<0.000380	<0.000330	0.000634 J
	MW-67	Apr-19		0.00750	0.0933	0.457	<0.000160	<0.000260	<0.000540	0.0253 J	0.000626 JB	0.0866	<0.0000490	0.000703 J	<0.000380	<0.000330	0.000405 J

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
North Refinery	MW-90	Apr-18		0.00307	0.0170				<0.000540 J3J4	0.0329 J	<0.000240	0.0329			0.000532 J		
	MW-90	Oct-18		0.00274	0.0189				<0.000540	0.0894 J	0.000534 JB	0.0916			0.000461 J		
	MW-90	Apr-19		0.00236	0.0155				0.000889 JB	0.0179 J	0.000310 JB	0.0602			0.000671 J		
	MW-90	Oct-19		0.00423	0.0147				<0.000540	**1.04**	0.000315 JB	0.100			0.0141		
	MW-90	Jun-20		0.00299 B	0.0150 J				<0.00149	0.295	<0.00249	0.0909			<0.000657		
	MW-90	Oct-20		0.00318	0.0163 J				0.00157 J	0.495	<0.00249	0.124			<0.000657		
	MW-91	Apr-18		0.00800	0.0454				<0.000540 J3J4	0.0370 J	0.00365	0.00264 J			<0.000380		
	MW-91	Oct-18		0.00772	0.0484				0.000738 J	0.0472 J	0.00440 B	0.00539			0.000542 J		
	MW-91	Apr-19		0.00693	0.0460				<0.000540	0.0388 J	0.00412 B	0.00762			0.00460		
	MW-91	Oct-19		0.00392	0.0552				<0.000540	0.0186 J	0.00475	0.00710 B			0.0214		
	MW-91	Jun-20		0.00524 B	0.0561				<0.00149	0.197	0.00610	0.00381 J			<0.000657		
	MW-92	Apr-16		0.00316 J	**3.44** O1V				<0.00270	0.328 J	<0.00120	0.0363			0.00207 J		
	MW-92	Oct-16		0.00732	**2.81**				0.00101 JB	0.0744 J	0.00183 J	0.0274			0.00172 J		
	MW-93	Apr-17		0.00456	0.0228				0.00367	0.278	0.00116 J	0.0258			0.00683		
	MW-93	Apr-18		0.00706	0.0304				0.00945	0.145 B	0.00152 JB	0.0325			0.00377 B		
	MW-93	Apr-19		0.00456	0.0394				0.00174 JB	0.110	0.00105 J	0.0615			0.0144		
	MW-93	Jun-20		0.00827	0.0351				0.00257	0.181	<0.00249	**0.208**			0.00412		
	MW-94	Oct-15		**0.0215**	1.57				0.00144 J	<0.0150	<0.000240	0.00194 J			0.000935 J		
	MW-94	Apr-16		**0.0286**	0.353				<0.00270	<0.0750	<0.00120	0.00666 J			<0.00190		
	MW-94	Oct-16		**0.0115**	0.635				0.00119 JB	0.0159 J	0.000255 J	0.00631			0.000962 J		
	MW-94	Apr-17		**0.0170**	0.873				0.00141 J	0.134	0.000298 J	0.00382 J			0.00304		
	MW-95	Apr-17		0.00173 J	0.0612				<0.000540	<0.0150	<0.000240	0.0330			0.000407 J		
	MW-95	Apr-18		0.00154 J	0.0691				<0.000540	0.0155 J	<0.000240	0.0556			<0.000380		
	MW-95	Apr-19		0.00141 J	0.0597				<0.000540	<0.0150	0.000528 JB	0.0904			<0.000380		
	MW-95	Jun-20		0.00135 JB	0.0431				<0.00149	0.0879 J	<0.00249	0.156			<0.000657		
	MW-96	Apr-18		0.00321	0.124				0.000908 JJ3J4	0.0251 J	0.000257 J	0.00146 J			<0.000380		
	MW-96	Oct-18		0.00251	0.111				<0.000540	0.0658 J	0.000673 JB	0.00158 J			<0.000380		
	MW-96	Apr-19		0.00237	0.161				<0.000540	0.0510 J	0.000267 JB	0.00103 JB			0.000465 J		
	MW-96	Oct-19		0.00199 J	0.149				<0.000540	0.0158 J	<0.000240	0.00648 B			0.00423		
	MW-96	Jun-20		0.00241 B	0.176				<0.00149	<0.0489	<0.00249	<0.00132			<0.000657		
	MW-96	Oct-20		0.00207	0.175				<0.00149	<0.0489	<0.00249	<0.00132			<0.000657		
	MW-98	Apr-18		0.00120 J	0.0156				0.000670 JJ3J4	<0.0150	0.00964	0.0246			0.000402 J		
	MW-98	Oct-18		0.000968 J	0.0182				0.000615 J	0.0174 J	0.00903 JB	0.0210			<0.000380		
	MW-98	Apr-19		0.000810 J	0.0409				<0.000540	<0.0150	0.00796	0.0220			<0.000380		
	MW-98	Oct-19		0.00231	0.0177				0.00153 J	0.0792 J	0.00771	0.0231			0.00508		
	MW-98	Jun-20		0.000895 J	0.0180 J				0.00316	0.0721 J	0.00815	0.0213			<0.000657		
	MW-98	Oct-20		0.000795 J	0.0176 J				<0.00149	<0.0489	0.00690	0.0208			<0.000657		
	MW-137	Oct-17		**0.0156**	0.0756	**1.03**	<0.000160	<0.000260	0.00109 J	0.260	0.00338	**0.209**	<0.0000490	0.0198	0.0393	<0.000330	0.00771	
	MW-137	Apr-18		**0.0512**	0.0711	**0.997**	<0.000160	<0.000260	0.00132 J	0.0740 JB	0.00433	0.154	<0.0000490	0.0134	0.00240 B	<0.000330	0.00718	
	MW-137	Oct-18		**0.0129**	0.0942	**0.989**	<0.000160	<0.000260	0.000586 J	0.0553 J	0.00318	0.183	<0.0000490	0.0126	**0.341**	<0.000330	0.00844	
	MW-137	Apr-19		**0.0285**	0.103	**1.02**	<0.000160	<0.000260	0.000596 JB	0.0240 J	0.00268	0.157	<0.0000490	0.0133	0.00601	<0.000330	0.00838	
	MW-138	Oct-17		0.00507	0.103	**1.11**	<0.000160	<0.000260	0.000747 J	0.0334 J	0.000271 J	0.0931	<0.0000490	0.00619	0.00945	<0.000330	0.00195 J	
	MW-138	Apr-18		0.00514	0.124	**0.984**	<0.000160	<0.000260	0.000785 J	0.160 B	<0.000240	0.103	<0.0000490	0.00977	0.000667 JB	<0.000330	0.00169 J	
	MW-138	Oct-18		0.00464	0.108	**0.927**	<0.000160	<0.000260	<0.000540	0.0235 J	0.000249 J	0.111	<0.0000490	0.00490	**0.0973**	<0.000330	0.00120 J	
	MW-138	Apr-19		0.00560	0.141	**0.951**	<0.000160	<0.000260	0.000855 JB	0.0228 J	0.000353 J	0.128	<0.0000490	0.00504	0.00102 J	<0.000330	0.00121 J	
	RW-1R	Apr-16		0.00695 J	0.0414				<0.00270	**17.1**	0.00149 J	**0.317**			0.00246 J		
	RW-1	Apr-17		**0.0359**	0.0243				0.00254	**4.88**	0.00492	**0.240**			0.00573 B		
	RW-1	Apr-18		**0.0204**	0.0328				0.000826 JJ3J4	**1.50**	0.00156 J	0.0237			0.00213		
	RW-1	Apr-19		**0.0172**	0.0357				0.00100 JB	**1.14**	0.00100 JB	0.0173			0.00211		
	RW-2	Apr-15		**0.0264**	0.0245 J				0.00553 J	0.381 J	0.00233 J	**0.313**			**0.0705**		
	RW-2R	Apr-16		0.00552 J	0.171				0.00750 J	**2.25**	**0.0153**	0.0705			**0.422**		
	RW-2	Apr-17		0.00504	0.0566				0.00173 J	0.264	0.000960 J	0.0161			0.0100		
	RW-2	Apr-18		0.00374	0.139				0.00362	0.123 B	0.00163 JB	0.0215			0.00128 JB		
	RW-7	Apr-17		0.00332	0.0198				<0.000540	0.183	<0.000240	**1.13**			<0.000380		
	RW-7	Apr-18		**0.0174**	0.144				0.00434 B	**2.92**	0.000599 J	0.106			<0.000380		
	RW-7	Apr-19		**0.0246**	0.122				0.00234 B	**7.78**	0.000979 JB	0.173			0.000381 J		
	RW-7	Jun-20		0.00738	0.176				<0.00149	**2.57**	<0.00249	0.108			<0.000657		
	RW-8	Apr-15		0.00556 J	0.0889				<0.00270	0.427 J	<0.00120	0.0556			0.00200 J		
	RW-8	Apr-17		**0.0343**	0.0593				0.00135 J	**9.50**	0.00169 J	**1.12**			<0.000380		
	RW-9	Apr-17		0.00338	0.0378				<0.000540	<0.0150	<0.00120	**0.784**			0.0217		
	RW-9	Apr-18		0.00404	0.0462				<0.000540	0.0199 J	0.00111 J	**0.545**			0.000498 J		
	RW-9	Apr-19		0.00334	0.0411				<0.000540	0.0195 J	0.00200 B	**0.507**			0.000485 J		
	RW-9	Jun-20		0.00452	0.0367				<0.00149	<0.0489	<0.00249	**0.355**			<0.000657		
	RW-10	Apr-17		0.00167 J	0.0184				<0.000540	0.0250 J	0.000433 J	0.173			<0.000380		
	RW-10	Apr-18		0.00234	0.0224				<0.000540	<0.0150	0.000469 J	0.189			<0.000380		
	RW-10	Apr-19		0.00158 J	0.0207				<0.000540	<0.0150	<0.000240	0.199			0.000555 J		
	RW-10	Jun-20		0.00405	0.0187 J				0.00188 J	<0.0489	<0.00249	0.182			<0.000657		
	RW-16B	Apr-17		**0.0129**	0.0126				0.00108 J	0.0227 J	0.00125 J	**0.263**			0.00658		
	RW-16B	Apr-18		0.00922	0.0130				0.000754 JB	0.0239 J	0.000343 J	**0.201**			0.00643		
	RW-16B	Apr-19		**0.0135**	0.0158				<0.000540	0.0160 JB	0.000494 J	**0.508**			0.00933		
	RW-16B	Jun-20		**0.0267**	0.0591				0.00287	**1.10**	0.00385 J	0.0348			**0.0922**		
	RW-17A	Apr-17		**0.0113**	0.0223				0.000584 J	0.0569 J	0.0106	**0.719**			0.0106		
	RW-17A	Apr-18		**0.0106**	0.0232				<0.000540 J3J4	0.0346 J	0.00975	**0.767**			0.00322		
	RW-17A	Apr-19		**0.0151**	0.0205				0.000799 J	0.140	0.0138	**0.751**			0.000700 J		
	RW-17A	Jun-20		**0.0163**	0.0206				0.00178 J	0.232	0.0104	0.105			0.0154		
North RO Field	MW-117	Apr-18		0.00236	0.0110				0.000952 J	0.200	0.000293 J	0.00405 J			0.0126		
	MW-117	Oct-18		0.00224	0.00996				<0.000540	0.0302 J	<0.000240	0.000557 J			0.0121		
	MW-117	Apr-19		0.00267	0.0119				0.00150 JB	0.127	0.000684 JB	0.00189 J			0.00940		
	MW-117	Oct-19		0.00253	0.0112				0.00105 J	0.114	<0.000240	0.00236 J			0.00898		
	MW-117	Jun-20		0.00249	0.0115 J				<0.00149	0.121	<0.00249	0.00283 J			0.00969		
	MW-117	Oct-20		0.00255	0.0110 J				<0.00149	0.132	<0.00249	0.00353 J			0.0123		
	MW-118	Apr-18		0.00991	0.00943				<0.000540	0.0223 J	0.000430 J	0.000501 J			0.00851		
	MW-118	Oct-18		**0.0103**	0.00867				0.000593 J	0.0156 J	<0.000240	0.000403 J			0.00774		
	MW-118	Apr-19		**0.0106**	0.0106				0.00166 JB	0.0751 J	0.000334 JB	0.00119 J			0.00897		
	MW-118	Oct-19		0.00869	0.0147				0.00160 J	0.255	0.000359 J	0.00306 J			0.0120		
	MW-118	Jun-20		0.00806	0.0122 J				0.00175 J	<0.0489	<0.00249	<0.00132			0.0129		
	MW-118	Oct-20		0.00770	0.0149 J				0.00230	0.249	<0.00249	0.00273 J			0.0126		
	MW-119	Apr-18		0.00392	0.00951				<0.000540	0.0347 J	0.000502 J	0.00250 J			0.00324		
	MW-119	Oct-18		0.00462	0.0110				<0.000540	<0.0150	<0.000240	0.00375 J			0.00112 J		
	MW-119	Apr-19		0.00439	0.0109				0.00115 JB	0.101	0.000477 JB	0.00405 J			0.00989		
	MW-119	Oct-19		0.00451	0.0277				0.00224	0.930	0.000875 J	0.0260			0.00456		
	MW-119	Jun-20		0.00394	0.0105 J				<0.00149	<0.0489	<0.00249	0.00689			0.00466		
	MW-119	Oct-20		0.00451	0.0101 J				0.00163 J	0.0836 J	<0.00249	0.0114 B			0.00422		
South Refinery	KWB-2R	Apr-17		0.00152 J	0.0271				<0.000540	0.0346 J	0.000273 J	**0.564**			<0.000380		
	KWB-2R	Oct-17		0.00258	0.324				<0.000540	0.0522 J	0.00130 J	0.0596			<0.000380		
	KWB-2R	Apr-19		0.00182 J	0.0278				0.00151 JB	0.0333 J	0.000866 JB	**0.626**			<0.000380		
	KWB-2R	Oct-19		0.00126 J	0.290				<0.000540	<0.0150	0.00467	0.171			<0.000380		
	KWB-5	Oct-17		**0.0202**	**5.06**				<0.000540	**2.11**	0.000287 J	**1.64**			<0.000380		
	KWB-5	Apr-18		**0.0201**	**5.09**				<0.000540	**1.21**	0.000758 JB	**1.29**			<0.000380		
	KWB-5	Oct-18		**0.0166**	**3.75**				<0.00270	**2.13**	<0.00120	**1.55**			<0.00190		
	KWB-5	Apr-19		**0.0226**	**3.72**				0.00131 JB	**2.66**	0.00178 JB	**1.50**			<0.000380		
	KWB-6	Apr-17		0.00406	0.152				<0.000540	0.152	0.000533 J	**1.91**			<0.000380		
	KWB-6	Oct-17		0.00898	0.0998				<0.000540	0.250	0.000661 J	**2.15**			<0.000380		
	KWB-6	Apr-18		**0.0251**	0.120				0.00170 J	**4.68**	0.00564	**2.03**			<0.000380		
	KWB-6	Oct-18		0.00813	0.0699				<0.000540	0.149	<0.000240	**1.91**			0.000421 J		

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	MW-28	Apr-18			0.00749	0.0581	**1.29**	<0.000160	<0.000260	<0.000540	0.156 B	0.0134	0.0370	<0.0000490	0.00415	0.000588 JB	<0.000330	0.00230 J
	MW-28	Oct-18			0.00486 J	0.0652	**1.16**	<0.000160	<0.00130	<0.00270	0.0971 J	0.00453 J	0.0509	0.000108 J	0.00659 J	<0.00190	<0.00165	0.00111 JB
	MW-28	Apr-19			0.00422	0.0660	**1.48**	<0.000160	<0.000260	0.00131 JB	0.0910 J	0.00990	0.0749	<0.0000490	0.00465	<0.000380	<0.000330	0.00270 J
	MW-28	Oct-19			0.00396	0.0522	**1.53**	<0.000160	<0.000260	0.000933 J	0.0502 JB	0.00717	0.0261	0.0000582 JB	0.00275	0.00329	<0.000330	0.00228 J
	MW-28	Jun-20			0.00705	0.0449	**1.32**	<0.000478	0.000802 J	<0.00149	0.122	0.0117	**0.708**	<0.000100 J6	0.00624	<0.000657	<0.00754	0.00364 J
	MW-28	Oct-20			0.00538	0.0371	**1.32**	<0.000478	<0.000477	<0.00149	0.0940 J	0.00540	**0.389**	<0.000100	0.00504	<0.000657	<0.00754	0.00375 JB
	MW-48	Apr-18			0.00554	1.82				<0.000540	0.105	0.00142 J	0.136			**0.247**		
	MW-48	Oct-18			0.00561	1.13 V				0.00119 J	0.231	0.00268	**0.347**			0.00132 J		
	MW-48	Apr-19			0.00395	1.04				0.000613 JB	0.195	0.00297	**0.481**			0.0405		
	MW-48	Oct-19			0.00646	1.04				0.00117 J	0.234	0.00232	**0.604**			0.000428 J		
	MW-50	Apr-18			0.00391	0.0130				<0.000540 J3J4	0.323	0.000419 J	**0.968**			0.00580		
	MW-50	Oct-18			0.00610	0.0137				<0.000540	**1.59**	0.000401 JB	**0.898**			0.00178 J		
	MW-50	Apr-19			0.00524	0.0143				0.00128 JB	**1.30**	0.000664 JB	**1.03**			0.00425		
	MW-50	Oct-19			0.00517	0.0155				<0.000540	0.773	0.000723 JB	**1.02**			0.00227		
	MW-50	Jun-20			0.00379 B	0.0113 J				<0.00149	0.226	<0.00249	**0.536**			0.0309		
	MW-50	Oct-20			0.00301	0.0128 J				<0.00149	0.0795 J	<0.00249	**0.450**			0.0377		
	MW-52	Apr-18			0.00363	0.0108	0.728	<0.000160	0.000378 J	<0.000540	<0.0150	<0.000240	0.0435	<0.0000490	0.00628	0.00799	0.0105	0.0259
	MW-52	Oct-18			0.00321	0.00897	0.723	<0.000160	0.000271 J	<0.000540	<0.0150	<0.000240	0.0433	<0.0000490	0.00504	0.00221	0.00888 J	0.0232
	MW-52	Apr-19			0.00357	0.0108	0.741	<0.000160	0.000338 J	0.00154 JB	<0.0150	0.000325 JB	0.0594	<0.0000490	0.00635	0.00537	0.0103	0.0262
	MW-52	Oct-19			0.00353	0.0113	0.732	<0.000160	0.000402 J	0.000693 J	<0.0150	0.000510 JB	0.0618	0.0000644 JB	0.00980	0.00628	0.0114	0.0235
	MW-52	Jun-20			0.00344	0.0149 J	**0.767**	<0.000478	0.000742 J	0.00273	0.252	<0.00249	0.0928	<0.000100	0.0260	0.00612	0.0131 J	0.0247
	MW-52	Oct-20			0.00361	0.0123 J	**0.772**	<0.000478	0.000636 J	<0.00149	<0.0489	<0.00249	0.0661	<0.000100	0.0304	0.00578	0.0125 J	0.0240
	MW-64	Apr-18			**0.0394**	**2.17**				<0.000540	0.179 B	0.00122 J	0.0638			0.000584 J		
	MW-64	Oct-18			**0.0291**	**2.33**				<0.00270	0.148 J	<0.00120	0.0644			<0.00190		
	MW-64	Apr-19			**0.0266**	**2.43**				<0.000540	0.180	0.000861 JB	0.0831			0.000582 J		
	MW-64	Oct-19			**0.0230**	**2.03**				<0.000540	0.487	0.000743 JB	0.0793			<0.000380		
	MW-64	Jun-20			**0.0246**	**2.29**				<0.00149	0.349	<0.00249	0.0920			<0.000657		
	MW-64	Oct-20			**0.0249**	**2.15**				<0.00149	0.0846 J	<0.00249	0.0742			<0.000657		
	MW-65	Apr-18			**0.0108**	**2.60**				<0.000540	**2.18**	0.000448 J	**0.527**			<0.000380		
	MW-65	Oct-18			0.00679 J	1.71				<0.00270	0.624	<0.00120	**0.431**			<0.00190		
	MW-65	Apr-19			0.00832	1.88				<0.000540	0.739	0.000373 JB	**0.530**			<0.000380		
	MW-65	Oct-19			0.00653	1.58				<0.000540	0.265	0.000311 JB	**0.405**			<0.000380		
	MW-66	Apr-18			0.00275	**2.17**	0.309	<0.000160	<0.000260	<0.000540	0.820	0.000939 JB	**0.293**	<0.0000490	0.00678	0.000509 JB	<0.000330	0.000530 J
	MW-66	Oct-18			0.00258	1.88	0.324	<0.000160	<0.000260	<0.000540	0.833	0.00280	**0.278**	<0.0000490	0.00661	<0.000380	<0.000330	0.000708 J
	MW-66	Apr-19			0.00257	**2.75**	0.333	<0.000160	<0.000260	0.00118 JB	**1.20**	0.00158 J	**0.265**	<0.0000490	0.00606	<0.000380	<0.000330	0.000996 J
	MW-66	Oct-19			0.00236	1.44	0.206	<0.000160	<0.000260	0.000717 J	0.426 B	0.00104 JB	**0.283**	0.0000567 JB	0.0131	0.00393	<0.000330	0.00180 J
	MW-66	Jun-20			0.00235	1.99	0.250	<0.000478	<0.000477	<0.00149	0.748	<0.00249	**0.306**	<0.000100	0.00565	<0.000657	<0.00754	<0.000986
	MW-66	Oct-20			0.00267	1.68	0.229	<0.000478	<0.000477	<0.00149	0.704	<0.00249	**0.339**	<0.000100	0.00675	<0.000657	<0.00754	0.00212 JB
	MW-99	Apr-18			0.00900	0.311				0.000544 J	0.143 B	0.000673 JB	**0.244**			<0.000380		
	MW-99	Oct-18			0.00821	0.452				0.000542 J	0.163	0.000718 J	**0.224**			0.00169 J		
	MW-99	Apr-19			0.00789	0.404				0.00207 B	0.346	0.00319	**0.225**			0.000538 J		
	MW-99	Oct-19			0.00338	0.200				0.00124 J	0.465 B	0.00301	0.193			0.00451		
	MW-99	Jun-20			0.00301	0.209				0.00275	0.168	<0.00249	**0.229**			<0.000657		
	MW-101	Apr-18			**0.0754**	0.0518				<0.000540	**2.27**	<0.000240	**1.21**			0.000442 JB		
	MW-101	Oct-18			**0.0819**	0.0374				<0.000540	**2.68**	<0.000240	**1.12**			<0.000380		
	MW-101	Apr-19			**0.0910**	0.0491				<0.000540	**3.08**	0.000245 J	**1.32**			<0.000380		
	MW-101	Oct-19			**0.0500**	0.0574				0.000548 J	**2.65**	0.000438 JB	**1.15**			0.00324		
	MW-101	Jun-20			**0.0735**	0.0551				<0.00149	**3.42**	<0.00249	**1.15**			<0.000657		
	MW-101	Oct-20			**0.0107**	0.0786				<0.00149	**1.75**	<0.00249	**0.912**			<0.000657		
	MW-102	Apr-18			**0.0181**	**7.83**				0.00358 B	**6.74**	0.0111	0.0651			0.000601 J		
	MW-102	Oct-18			**0.0130**	**7.92**				<0.00270	0.103 J	0.00376 J	0.0381			<0.00190		
	MW-102	Apr-19			**0.0151**	**9.15 V**				0.00168 JB	0.183	0.00384	0.0386			<0.000380 J6		
	MW-102	Oct-19			**0.0147**	0.537				0.00180 J	0.156 B	0.00374	0.0321			0.00915		
	MW-102	Jun-20			**0.0129**	**8.69**				<0.00149	0.187	0.00498 J	0.0370			<0.000657		
	MW-102	Oct-20			**0.0147**	**8.81**				0.00155 J	0.159	0.00387 J	0.0405			<0.000657		
	MW-103	Apr-17			0.00848 J	**8.12**				<0.0108	<0.300	<0.00480	0.00689 J			<0.00760		
	MW-103	Apr-18			0.00699	**3.44**				<0.000540	0.0617 JB	<0.00240	0.00151 J			0.00106 J		
	MW-103	Apr-19			0.00567	1.34				0.00111 JB	0.316	0.00298 B	0.00530			0.000937 J		
	MW-103	Jun-20			0.00213	**2.61**				<0.00149	<0.0489	<0.00249	0.00522			<0.000657		
	MW-104	Apr-18			**0.0200**	0.0371				0.00170 JB	0.241 B	<0.000240	0.00414 J			<0.000380		
	MW-104	Apr-18	FD		**0.0213**	0.0346				0.00103 JB	0.231	<0.000240	0.00567			0.000732 J		
	MW-104	Oct-18			**0.0159**	0.0306				<0.00270	<0.0750	<0.00120	0.0152 JB			<0.00190		
	MW-104	Oct-18	FD		**0.0185**	0.0353				0.000631 J	<0.0150	0.000503 JB	0.0157			<0.000380		
	MW-104	Apr-19			**0.0120**	0.0337				<0.000540	0.0208 J	<0.000240	0.0248			<0.000380		
	MW-104	Apr-19	FD		**0.0122**	0.0208				0.000737 J	0.0171 JB	<0.000240	0.0250			<0.000380		
	MW-104	Oct-19			0.00508	0.0213				0.00295	0.0284 J	0.000394 JB	0.0230			<0.000380		
	MW-104	Oct-19	FD		0.00508	0.0211				0.000987 J	0.0260 J	0.000327 JB	0.0235			0.00280		
	MW-104	Jun-20			0.00181 J	0.0253				<0.00149	<0.0489	<0.00249	0.0188			<0.000657		
	MW-104	Jun-20	FD		0.00163 JB	0.0237				<0.00149	<0.0489	<0.00249	0.0181			<0.000657		
	MW-104	Oct-20			0.00203	0.0248				0.00191 J	0.370	<0.00249	0.0252 B			<0.000657		
	MW-104	Oct-20	FD		0.00192 J	0.0238				0.00210	0.312	<0.00249	0.0245			<0.000657		
	MW-105	Apr-18			**0.0220**	**4.29**				0.0165	**10.1**	**0.0326**	**0.285**			0.00123 JB		
	MW-105	Oct-18			0.00742	0.283				0.00246	0.848	0.000804 J	**0.216**			0.000508 J		
	MW-105	Apr-19			0.0100	0.185				0.00175 J	0.390	0.00174 J	0.125			<0.000380		
	MW-105	Oct-19			0.00355	0.106				0.00510	**1.09**	0.00257	**0.240**			0.00809		
	MW-105	Jun-20			0.00808	0.983				0.00172 J	0.456	<0.00249	0.0818			<0.000657		
	MW-105	Oct-20			**0.0123**	**8.29**				0.00278	0.411	<0.00249	0.138			<0.000657		
	MW-106	Apr-18			**0.0152**	0.0277				0.00136 JJ3J4	0.0688 J	0.00240	0.00677			0.000564 J		
	MW-106	Oct-18			**0.0165**	0.0397				0.00134 J	0.102	0.00291	0.00317 J			0.000436 J		
	MW-106	Apr-19			0.00725	0.0546				0.00142 J	0.438	0.00184 J	0.0113			<0.000380		
	MW-106	Oct-19			**0.0128**	0.0352				0.00208	0.0341 J	0.00187 J	0.0288			0.00324		
	MW-106	Jun-20			**0.0201**	0.0341				0.00229	0.224	0.00386 J	0.0118			0.000680 J		
	MW-106	Oct-20			**0.0255**	0.0306				0.00250	0.161	0.00411 J	0.00472 J			0.000967 J		
	MW-107	Oct-16			0.00388	1.30				0.000930 JB	0.158	0.000595 J	0.0896			<0.000380		
	MW-107	Apr-17			0.00143 J	1.99				<0.000540	**5.17**	0.000437 J	0.105			0.0145		
	MW-107	Apr-18			0.00157 J	**2.32**				<0.000540	**4.54**	0.000427 JB	0.146			<0.000380		
	MW-107	Apr-19			0.00174 J	**2.64**				0.00139 JB	**2.77**	0.000542 J	0.185			<0.000380		
	MW-109	Apr-18			0.00144 J	0.0441				<0.000540	0.0641 J	<0.000240	0.0265			0.00300		
	MW-109	Oct-18			0.00162 J	0.0472				<0.000540	0.0416 J	<0.000240	0.0340			0.000401 J		
	MW-109	Apr-19			0.00159 J	0.0454				0.00199 JB	0.0173 J	<0.000240	0.0588			<0.000380		
	MW-109	Oct-19			0.000754 J	0.0426				<0.000540	<0.0150	0.000432 JB	0.0699			0.0289		
	MW-109	Jun-20			0.00261	0.0574				<0.00149	<0.0489	<0.00249	0.0531			<0.000657		
	MW-109	Oct-20			0.00193 J	0.0713				<0.00149	<0.0489	<0.00249	0.0544			<0.000657		
	MW-110	Apr-18			0.00965	0.0887				0.00152 J	**1.26**	0.00123 J	**0.451**			<0.000380		
	MW-110	Oct-18			**0.0231**	0.0674				0.00155 J	**1.32**	0.00118 J	**1.60**			<0.000380		
	MW-110	Apr-19			**0.0270**	0.0684				0.00191 JB	0.852	0.000241 JB	**1.70**			<0.000380		
	MW-110	Oct-19			**0.0326**	0.0476				<0.000540	**1.28**	0.00101 JB	**2.01**			0.00411		
	MW-110	Jun-20			**0.0345**	0.0516				<0.00149	0.919	<0.00249	**1.92**			<0.000657		
	MW-110	Oct-20			**0.0386**	0.0453				<0.00149	0.995	<0.00249	**2.01**			<0.000657		
	MW-139	Oct-19			0.00960	0.0359				0.00112 J	**2.30**	0.00170 J	**1.98**			0.000503 J		
	MW-139	Jun-20			0.00587 B	0.0324				<0.00149	0.561	<0.00249	**1.72**			<0.000657		
	MW-139	Oct-20			0.00744	0.0321				<0.00149	0.608	<0.00249	**1.89**			<0.000657		
	RA-313	Apr-17																
	RA-313	Apr-18																
	RA-313	Apr-19																
	RA-313	Jun-20																

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	RW-4	Apr-17		0.00340	0.0732				<0.000540	0.192	0.000419 J	0.0261			<0.000380		
	RW-4	Apr-18		0.00293	0.0671				0.000673 J	0.0270 JB	0.000685 JB	0.0548			0.000499 JB		
	RW-4	Apr-19		0.00271	0.148				0.000959 JB	0.0510 J	0.000725 J	0.0379			0.000455 J		
	RW-4	Jun-20		0.00356	0.0676				<0.00149	0.238	<0.00249	0.133			<0.000657		
	RW-5R	Apr-15		0.00136 J	0.0259				<0.000540	0.0952 J	0.000336 J	0.0177			<0.000380		
	RW-5R	Apr-16		0.00183 J	0.0282				<0.00270	<0.0750	<0.00120	0.0191 J			<0.00190		
	RW-6	Apr-15		**0.0332**	1.66				<0.000540	**13.8**	0.000574 J	**0.280**			<0.000380		
	RW-6R	Apr-16		**0.0712**	0.480				<0.00270	**3.70**	<0.00120	**0.553**			<0.00190		
	RW-6	Apr-18		**0.0170**	1.94				0.00106 J	**1.59**	0.000764 JB	**0.298**			<0.000380		
	RW-6	Apr-19		0.00630	**6.89**				0.000826 JB	0.173	0.000482 J	0.156			<0.000380		
	RW-15C	Apr-17		**0.0274**	0.885				<0.000540	0.316	0.0116	**0.358**			0.000461 JB		
	RW-15C	Apr-18		**0.0239**	1.19				0.000699 J	0.264	0.000822 J	**0.372**			0.000836 J		
	RW-15C	Apr-19		**0.0135**	1.70				0.00534 B	0.473	0.00106 JB	**0.457**			0.00895		
South RO Field	MW-114	Apr-18		0.00226	0.0129				0.00708	0.0871 J	<0.000240	**0.900**			0.0105		
	MW-114	Oct-18		0.00225	0.0133				<0.000540	<0.0150	<0.000240	**0.867**			0.00985		
	MW-114	Apr-19		0.00215	0.0150				<0.000540	0.170	0.000421 J	**0.961**			0.00532		
	MW-114	Oct-19		0.00274	0.0141				<0.000540	<0.0150	<0.000240	**1.05**			0.00389		
	MW-114	Jun-20		0.00348	0.0145 J				<0.00149	<0.0489	<0.00249	**0.980**			0.00355		
	MW-114	Oct-20		0.00400	0.0131 J				<0.00149	<0.0489	<0.00249	**0.925**			0.00293		
	MW-115	Apr-18		0.00333	0.00824				<0.000540	0.0246 J	<0.000240	0.0564			0.00159 J		
	MW-115	Oct-18		0.00298	0.00719				<0.000540	<0.0150	<0.000240	0.0425			0.00413		
	MW-115	Apr-19		0.00395	0.0133				<0.000540	0.189	0.000523 J	0.123			0.00497		
	MW-115	Oct-19		0.00434	0.0136				<0.000540	0.184	0.000400 J	0.146			0.00131 J		
	MW-115	Jun-20		0.00388	0.00892 J				<0.00149	<0.0489	<0.00249	0.115			0.00483		
	MW-115	Oct-20		0.00435	0.0112 J				<0.00149	<0.0489	<0.00249	0.0983			0.00844		
	MW-116	Apr-18		0.00492	0.00839				<0.000540	0.0594 J	<0.000240	0.0226			0.00743		
	MW-116	Oct-18		0.00304	0.00833				<0.000540	<0.0150	<0.000240	0.0211			0.00475		
	MW-116	Apr-19		0.00390	0.0121				0.00124 JB	0.0431 J	<0.000240	0.0234			0.00466		
	MW-116	Oct-19		0.00309	0.00893				0.000765 J	0.0209 J	0.000619 JB	0.00907			0.00768		
	MW-116	Jun-20		0.00294	0.00939 J				<0.00149	0.161	<0.00249	0.0241			0.00730		
	MW-116	Oct-20		0.00300	0.00929 J				<0.00149	0.0902 J	<0.00249	0.0150 B			0.00619		
TEL	MW-49	Apr-18		0.00627	0.0565	0.740	<0.000160	<0.000260	<0.000540	0.321	0.00122 JB	0.197	<0.0000490	0.00655	0.000591 J	<0.000330	0.00110 J
	MW-49	Oct-18		0.00517	0.0506	0.693	<0.000160	<0.000260	<0.000540	0.0585 J	0.000826 J	**0.211**	<0.0000490	0.00660	0.000519 J	<0.000330	0.000439 J
	MW-49	Apr-19		0.00488	0.0541	0.729	<0.000160	<0.000260	<0.000540	0.0354 JB	0.000752 J	**0.209**	0.0000959 J	0.00773	<0.000380	<0.000330	0.000224 J
	MW-49	Oct-19		0.00532	0.0486	0.642	<0.000160	<0.000260	<0.000540	0.0155 JB	0.000821 JB	0.169	<0.0000490	0.00660 B	<0.000380	<0.000330	0.000786 J
	MW-49	Jun-20		0.00514	0.0552	0.638	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.147	<0.000100	0.00696	<0.000657	<0.00754	<0.000986
	MW-49	Oct-20		0.00538	0.0500	0.661	<0.000478	<0.000477	<0.00149	0.0526 J	<0.00249	**0.220**	<0.000100	0.00835	<0.000657	<0.00754	<0.000986
	TEL-1	Apr-18		**0.0132**	0.0140				0.0103	0.107	<0.000240	0.0532			<0.000380		
	TEL-1	Oct-18		**0.0173**	0.0171				0.00240	0.0675 J	<0.000240	0.0419			<0.000380		
	TEL-1	Apr-19		**0.0142**	0.0203				0.00480	0.158	0.000325 J	0.0425			<0.000380		
	TEL-1	Oct-19		**0.0136**	0.0158				0.00444 B	0.0598 JB	0.000418 JB	0.0365			<0.000380		
	TEL-1	Jun-20		**0.0116**	0.0152 J				0.00273	0.120	<0.00249	0.0315			<0.000657		
	TEL-2	Apr-18		**0.0183**	0.221				0.00202	0.0568 J	0.00114 J	0.0154			0.000522 J		
	TEL-2	Oct-18		**0.0152**	0.101				0.00151 J	0.0287 J	0.000727 J	0.0273			0.000520 J		
	TEL-2	Apr-19		**0.0117**	0.111				0.00208	0.0688 J	0.00130 J	0.0190			0.00137 J		
	TEL-2	Oct-19		**0.0115**	0.0914				0.00295 B	0.0484 JB	0.000814 JB	0.0281			0.000498 J		
	TEL-2	Jun-20		0.00826	0.131				0.00193 J	0.0517 J	<0.00249	0.0341			<0.000657		
	TEL-3	Apr-18		**0.0109**	0.0248				**0.334**	**1.47**	0.000726 J	0.0114			<0.000380		
	TEL-3	Apr-19		0.00228	0.0214				**0.0851**	0.336	0.00111 J	0.0142			0.000982 J		
	TEL-3	Oct-19		0.00161 J	0.0182				0.0248	0.112 B	0.000803 JB	0.0205			<0.000380		
	TEL-3	Oct-20		0.00434	0.0158 J				0.0275	0.158	<0.00249	0.0170			<0.000657		
	TEL-4	Apr-18		0.00733	0.0224				**0.593**	0.796	0.000795 J	**1.48**			<0.000380		
	TEL-4	Apr-18	FD	0.00695	0.0208				**0.741**	0.950	0.000918 J	**1.45**			0.000409 J		
	TEL-4	Oct-18		0.00130 J	0.0123				**0.274**	0.370	0.000418 J	**0.827**			<0.000380		
	TEL-4	Oct-18	FD	0.00160 J	0.0119				**0.293**	0.286	0.000413 J	**0.822**			<0.000380		
	TEL-4	Apr-19		0.00133 J	0.0122				**0.151**	0.319	0.000636 J	**0.944**			0.000600 J		
	TEL-4	Apr-19	FD	0.00181 J	0.0128				**0.147**	0.348	0.000616 J	**1.00**			<0.000380		
	TEL-4	Oct-19		0.00365	0.0158				**0.239**	0.360	0.00109 JB	**0.704**			0.000388 J		
	TEL-4	Oct-19	FD	0.00356	0.0163				**0.202**	0.322	0.000682 JB	**0.684**			0.000399 J		
	TEL-4	Jun-20		0.00632	0.0169 J				**0.103**	0.455	<0.00249	**1.17 V**			0.000712 J		
	TEL-4	Jun-20	FD	0.00618	0.0178 J				**0.125**	0.506	<0.00249	**1.19**			<0.000657		
	TEL-4	Oct-20		0.00923	0.0180 J				**0.106**	0.479	<0.00249	**1.24 V**			<0.000657		
	TEL-4	Oct-20	FD	0.00921	0.0181 J				**0.0522**	0.360	<0.00249	**1.19**			<0.000657		
Three Mile Ditch	MW-8	Apr-17		0.00678	0.0102				0.0259	0.111	<0.000240	**0.467**			0.00647		
	MW-8	Apr-18		0.00948	0.0110				**0.0627**	0.462	0.000387 J	**0.702**			0.0181		
	MW-8	Apr-19		0.00965	0.0134				**0.0651**	0.364	0.000715 J	**0.747**			0.0213		
	MW-8	Jun-20		0.00709	0.0155 J				0.00547 B	<0.0489	<0.00249	**0.808**			**0.0626**		
	MW-16	Apr-17		0.00498	0.0127				<0.000540	<0.0150	<0.000240	0.00510			0.0106		
	MW-16	Apr-18		0.00612	0.0157				<0.000540 J3J4	0.0436 J	<0.000240	**0.322**			0.00394		
	MW-16	Apr-19		0.00526	0.0129				<0.000540	0.0197 JB	0.000278 J	0.0793			0.00750		
	MW-16	Jun-20		0.00508	0.0161 J				<0.00149	<0.0489	<0.00249	0.116			0.0135		
	MW-20	Apr-17		0.00575	0.00980				<0.000540	<0.0150	<0.000240	0.00756			0.0188		
	MW-20	Apr-18		0.00700	0.0104				<0.000540	<0.0150	<0.000240	0.0197			0.0147		
	MW-20	Apr-19		0.00582	0.0110				<0.000540	<0.0150	0.000327 J	0.0134			0.00866		
	MW-20	Jun-20		0.00549	0.00996 J				<0.00149	<0.0489	<0.00249	0.00342 J			0.00505		
	MW-21	Apr-18		0.00656	0.00782				<0.000540	<0.0150	<0.000240	**0.290**			0.0284		
	MW-21	Oct-18		0.00537	0.0101				<0.000540	<0.0150	<0.000240	**0.738 O1V**			0.0331		
	MW-21	Apr-19		0.00538	0.00886				0.00133 JB	<0.0150	0.000323 J	0.138			0.0378		
	MW-21	Oct-19		0.00562	0.00881				<0.000540	<0.0150	<0.000240	**0.699**			0.0384		
	MW-21	Jun-20		0.00561	0.00916 J				<0.00149	<0.0489	<0.00249	**0.353**			**0.0521**		
	MW-21	Oct-20		0.00571	<0.00778				<0.00149	<0.0489	<0.00249	0.193			0.0429		
	MW-25	Apr-17		0.00300	0.0121				0.000842 J	0.0157 J	<0.000240	**0.507 V**			0.00254		
	MW-25	Apr-18		0.00338	0.0128				0.000687 J	0.0314 J	0.000330 J	**0.676 J3V**			0.00337		
	MW-25	Apr-19		0.00224	0.0135				0.000854 J	0.0348 JB	<0.000240	**0.439**			0.00299		
	MW-25	Jun-20		0.00216	0.0150 J				<0.00149	<0.0489	<0.00249	**0.906**			0.00318		
	MW-26	Apr-17		0.00335	0.00916				<0.000540	<0.0150	<0.000240	**0.560**			0.0232		
	MW-26	Apr-18		0.00426	0.00944				<0.000540 J3J4	<0.0150	0.000351 J	**0.513**			0.0238		
	MW-26	Apr-19		0.00326	0.00888				<0.000540	<0.0150	<0.000240	**0.521**			0.0226		
	MW-26	Jun-20		0.00335	0.00884 J				<0.00149	<0.0489	<0.00249	**0.295**			0.0196		
	MW-27	Apr-17		0.00216	0.0153				<0.000540	<0.0150	<0.000240	0.0158			0.00706		
	MW-27	Apr-18		0.00335	0.0150				0.000709 JB	0.183	0.000265 J	0.0539			0.0124		
	MW-27	Apr-19		0.00203	0.0158				<0.000540	<0.0150	<0.000240	0.0240			0.0127		
	MW-27	Jun-20		0.00228	0.0166 J				<0.00149	<0.0489	<0.00249	0.00890			0.0169		
	MW-46R	Apr-18		0.00428	0.0125				<0.000540	0.0570 J	0.000480 J	0.170			0.000882 J		
	MW-46R	Oct-18		0.00264	0.0119				0.000793 J	0.0221 J	<0.000240	0.107			0.00132 J		
	MW-46R	Apr-19		0.00406	0.0122				0.000561 JB	0.277 B	<0.000240	0.0964			0.00330		
	MW-46R	Oct-19		0.00276	0.0121				<0.000540	0.102	<0.000240	0.0684			0.00199 J		
	MW-46R	Jun-20		0.00285	0.0128 J				<0.00149	0.0754 J	<0.00249	0.0688			0.00120 J		
	MW-46R	Oct-20		0.00290	0.0110 J				<0.00149	0.0522 J	<0.00249	0.0720			<0.000657		
	MW-68	Apr-17		0.00244	0.0107				<0.000540	<0.0150	<0.000240	0.0824			0.00275		
	MW-68	Apr-18		0.00326	0.0119				0.00211 B	0.141	0.000658 J	0.0543			0.00780		
	MW-68	Apr-19		0.00215	0.0127				<0.000540	<0.0150	0.000318 J	0.00165 JB			0.0148		
	MW-68	Jun-20		0.00280	0.0155 J				<0.00149	<0.0489	<0.00249	<0.00132			0.0317		

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Appendix C, Table C.2 - Summary of Groundwater Analytical Data - Total Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Total Metals													
				Analyte	Arsenic	Barium	Boron	Cadmium	Cobalt	Chromium	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				CAS	7440-38-2	7440-39-3	7440-42-8	7440-43-9	7440-48-4	7440-47-3	7439-89-6	7439-92-1	7439-96-5	7439-97-6	7440-02-0	7782-49-2	7440-61-1	7440-62-2
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source	WQCC HH	WQCC HH	WQCCIrr	WQCC HH	WQCCIrr	WQCC HH	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCCIrr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Three Mile Ditch	MW-71	Apr-17		0.00387	0.00845	0.538	<0.000160	<0.000260	<0.000540	<0.0150	<0.000240	0.000841 J	<0.0000490	0.000916 J	0.0324	**0.0587**	0.0248
	MW-71	Apr-18		0.00500	0.00896	0.673	<0.000160	<0.000260	0.00106 J	<0.0150	<0.000240	0.000412 J	<0.0000490	0.00115 J	0.0321	**0.0594**	0.0255
	MW-71	Apr-19		0.00315	0.00901	0.670	<0.000160	<0.000260	0.000803 JB	0.0423 JB	<0.000240	0.00260 JB	<0.0000490	0.00130 J	0.0320	**0.0654**	0.0247
	MW-71	Jun-20		0.00391	0.00943 J	0.622	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.00111 J	0.0332	**0.0698**	0.0251
	MW-89	Apr-17		0.00657	0.0145				0.00102 J	<0.0150	<0.000240	0.0420			**0.0534**		
	MW-89	Apr-18		**0.0112**	0.0136				0.000638 JJ3J4	<0.0150	0.000617 J	**0.628**			0.00218		
	MW-89	Apr-19		0.00748	0.0140				0.000808 JB	0.0326 JB	0.000744 J	**0.439**			0.0299		
	MW-89	Jun-20		0.00857	0.0133 J				<0.00149	<0.0489	<0.00249	**0.579**			0.00476		
	NP-1	Apr-18															
	NP-1	Oct-18															
	NP-1	Apr-19															
	NP-1	Oct-19															
	NP-1	Jun-20															
	NP-1	Oct-20															
	NP-6	Apr-13															
	NP-6	Apr-15															
	NP-6	Apr-17															
	NP-6	Apr-19															
Upgradient	UG-1	Apr-17		0.00106 J	0.0135	0.548	<0.000160	<0.000260	0.000572 J	0.0561 J	<0.000240	0.00689	<0.0000490	0.00145 J	0.0100	0.0262	0.0118
	UG-1	Apr-18		0.00177 JB	0.0122	0.668	<0.000160	0.00130 J	<0.000540	<0.0150	<0.000240	0.000486 J	0.0000552 JB	0.00188 J	0.00692	0.0263	0.0153
	UG-1	Apr-19		0.00158 J	0.0165	0.727	<0.000160	0.000332 J	0.000624 JB	<0.0150	<0.000240	0.00109 J	<0.0000490	0.00226 B	0.0149	**0.0353**	0.0147
	UG-1	Jun-20		0.00139 J	0.0137 J	0.691	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	0.000984 J	0.0131	**0.0385**	0.0133
	UG-2	Apr-17		0.00197 J	0.0154	0.303	<0.000160	<0.000260	<0.000540	0.0172 J	<0.000240	0.0154	<0.0000490	0.00271	0.00572	0.0153	0.0154
	UG-2	Apr-18		0.00236 B	0.0142	0.303	<0.000160	<0.000260	<0.000540	0.0153 J	<0.000240	0.00678	0.0000684 JB	0.00188 J	0.00710	0.0131	0.0176
	UG-2	Apr-19		0.00227	0.0183	0.299	0.000295 J	0.000357 J	0.000732 JB	0.0286 J	0.00107 JB	0.0129	<0.0000490	0.00316 B	0.00766	0.0160	0.0174
	UG-2	Jun-20		0.00253	0.0141 J	0.274	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00395 J	<0.000100	0.00250	0.00616	0.0161 J	0.0185
	UG-3R	Apr-17		0.00161 J	0.0185	0.256	<0.000160	0.000465 J	<0.000540	0.0316 J	<0.000240	0.00182 J	<0.0000490	0.00225	0.00325	0.0129	0.00961
	UG-3R	Apr-18		0.00202 B	0.0170	0.470	<0.000160	<0.000260	<0.000540	0.0377 J	<0.000240	0.000713 J	<0.0000490	0.00104 J	0.00418	0.0124	0.0111
	UG-3R	Apr-19		0.00164 J	0.0183	0.223	<0.000160	<0.000260	0.000713 JB	<0.0150	<0.000240	0.00132 J	<0.0000490	0.000581 JB	0.00266	0.0160	0.00947
	UG-3R	Jun-20		0.00126 J	0.0205	0.173 J	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00389	0.0167 J	0.00867
	UG-4	Apr-17		0.00111 J	0.0164	**1.06**	<0.000160	<0.000260	<0.000540	0.0249 J	<0.000240	0.00935	<0.0000490	0.00143 J	0.0143	**0.0361**	0.00739
	UG-4	Apr-18		0.00177 JB	0.0158	**1.07**	<0.000160	<0.000260	<0.000540	0.0330 J	<0.000240	0.00117 J	0.0000571 JB	0.000467 J	0.0202	**0.0324**	0.00962 B
	UG-4	Apr-19		0.00128 J	0.0171	**1.07**	<0.000160	<0.000260	<0.000540	0.0596 J	<0.000240	0.00792	<0.0000490	0.000696 JB	0.0167	**0.0379**	0.00813
	UG-4	Jun-20		0.00105 J	0.0164 J	**1.02**	<0.000478	<0.000477	<0.00149	<0.0489	<0.00249	0.00403 J	<0.000100	0.00177 J	0.00925	**0.0357**	0.00757

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1, Tap Water Screening Level
WQCC Dom	NMED Groundwater standard for domestic exposure, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC
WQCC Irr	NMED Groundwater standard for irrigation exposure, 20.6.2.3103.C NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Cross-Gradient	KWB-13	Apr-17		0.00251	**0.0181**	**0.348**	0.000738 J	0.000961 J	<0.000260	<0.0150	0.000617 J	0.000700 JB	<0.0000490	0.00154 JB	**0.0126**	**0.0254**	**0.0197**
	KWB-13	Apr-18		0.00325	**0.0201**	**0.343**	0.000440 J	**0.142**	0.00156 J	**0.619**	0.000566 J	0.00905	0.0000695 JB	**0.0687**	**0.0133**	**0.0278**	**0.0206**
	KWB-13	Apr-19		0.00250	**0.0179**	**0.311**	<0.000160	0.000721 J	<0.000260	<0.0150	<0.000240	0.000914 JB	<0.0000490	0.00165 J	**0.0145**	**0.0238**	**0.0193**
	KWB-13	Jun-20		0.00244	**0.0141 J**	**0.326**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00955	**0.0240**	**0.0191**
	MW-136	Apr-18		0.00258	**0.0103**	**0.681**	<0.000160	0.000582 J	<0.000260	<0.0150	<0.000240	0.00578	<0.0000490	0.00356	0.00755	**0.0769**	**0.0176**
	MW-136	Oct-18															
	MW-136	Apr-19		0.00290	**0.0106**	**0.632**	<0.000160	0.00692	0.000265 J	**0.0306 J**	<0.00240	0.00663	<0.0000490	0.00439	0.00913	**0.0658 J**	**0.0170**
	MW-136	Oct-19															
	MW-136	Jun-20		0.00256	**0.0102 J**	**0.590**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00499 J	<0.000100	0.00214	0.00481	**0.0624**	**0.0174**
	MW-136	Oct-20															
	NP-5	Apr-13		<0.0100	<0.0100			<0.0100		<0.400	<0.0100	<0.0100			**0.0148**		
	NP-5	Apr-15		0.00306	0.00760			<0.000540		<0.0150	<0.000240	0.000511 J			**0.0128**		
	NP-5	Apr-17		0.00315	0.00738			<0.000540		<0.0150	<0.000240	<0.000250			**0.0125**		
	NP-5	Apr-19		0.00303	0.00741			<0.000540		<0.0150	0.000353 J	0.000297 J			**0.0126**		
	RA-3156	Apr-17															
	RA-3156	Apr-18															
	RA-3156	Apr-19															
	RA-3156	Jun-20															
Evaporation Ponds	MW-1R	Apr-17		0.000880 J	**0.0254**			0.000638 J		**0.0387 J**	<0.000240	**2.34**			<0.000380		
	MW-1R	Apr-18		0.00160 J	**0.0232**			<0.000540		**3.40**	0.000491 J	**1.72 V**			<0.000380		
	MW-1R	Apr-19		0.000828 J	**0.0180**			0.00170 J		<0.0150	<0.000240	**0.876**			<0.000380		
	MW-1R	Jun-20		0.00118 J	**0.0199 J**			<0.00149		**1.62**	<0.00249	**1.37**			<0.000657		
	MW-2A	Apr-18		0.00772	**0.0232**			<0.000540		**2.71**	<0.000240	**1.23**			0.00148 J		
	MW-2A	Oct-18															
	MW-2A	Apr-19		0.00251	**0.0205**			0.000654 JB		<0.0150	0.00155 J	**1.01**			0.00146 J		
	MW-2A	Oct-19															
	MW-2A	Jun-20		0.00932	**0.0180 J**			<0.00149		**1.67**	<0.00249	**1.46**			<0.000657		
	MW-2A	Oct-20															
	MW-3	Apr-18		**0.0228**	**0.0125**			<0.000540		**0.213**	0.000366 J	**0.668**			0.00562		
	MW-3	Apr-18	FD	**0.0239**	**0.0153**			<0.000540		**0.239 B**	0.000318 J	**0.706**			0.00414		
	MW-3	Oct-18															
	MW-3	Oct-18	FD														
	MW-3	Apr-19		**0.0245**	**0.0135**			0.00212		<0.0150	0.000432 J	**0.485**			**0.0119**		
	MW-3	Apr-19	FD	**0.0219**	**0.0136**			0.00110 J		<0.0150	0.000516 JB	**0.516**			**0.0126**		
	MW-3	Oct-19															
	MW-3	Oct-19	FD														
	MW-3	Jun-20		**0.0276**	**0.0135 J**			<0.00149		<0.0489	<0.00249	**0.885**			0.00866		
	MW-3	Jun-20	FD	**0.0301**	**0.0134 J**			<0.00149		<0.0489	<0.00249	**0.936**			0.00844		
	MW-3	Oct-20															
	MW-3	Oct-20	FD														
	MW-4A	Apr-18		**0.106**	**0.0120**			<0.000540		**1.49**	<0.000240	**1.98**			<0.000380		
	MW-4A	Oct-18															
	MW-4A	Apr-19		**0.104**	**0.0109**			0.000584 JB		<0.0150	0.000927 J	**1.88**			0.000783 J		
	MW-4A	Oct-19															
	MW-4A	Jun-20		**0.104**	**0.0125 J**			<0.00149		**2.43**	<0.00249	**1.84**			0.00109 J		
	MW-4A	Oct-20															
	MW-4B	Apr-13		**0.0428**	0.00976			<0.00500		**1.18**	<0.00500	**1.52**			<0.00500		
	MW-4B	Apr-15		**0.0930**	**0.0202**			<0.000540		**2.05**	<0.000240	**8.49 J**			0.000414 J		
	MW-4B	Apr-17		**0.0471**	**0.0188**			<0.000540		**0.0449 J**	<0.000240	**9.32**			<0.000380		
	MW-4B	Apr-19		**0.0455**	**0.0169**			0.000548 JB		<0.0150	0.000686 J	**9.36**			<0.000380		
	MW-5A	Apr-18		**0.128**	**0.0135**			<0.000540		**5.93**	<0.000240	**1.14**			0.00153 J		
	MW-5A	Oct-18															
	MW-5A	Apr-19		**0.0378**	**0.0120**			0.000935 JB		**0.0277 JB**	0.00324	**1.48**			0.00107 J		
	MW-5A	Oct-19															
	MW-5A	Jun-20		**0.192**	**0.0150 J**			<0.00149		**3.70**	<0.00249	**0.725**			0.00136 J		
	MW-5A	Oct-20															
	MW-5B	Apr-13		**0.109**	<0.0100			<0.0100		**0.618**	<0.0100	**2.17**			<0.0100		
	MW-5B	Apr-15		**0.198**	**0.0104**			0.000978 J		**4.71**	<0.000240	**3.49**			0.00197 J		
	MW-5B	Apr-17		**0.127**	**0.0111**			<0.000540		**0.0226 J**	<0.000240	**3.51**			0.00155 J		
	MW-5B	Apr-19		**0.131**	**0.0118**			0.000965 JB		**0.0237 JB**	0.000840 J	**3.16**			0.00217		
	MW-5C	Apr-13		**0.0137**	**0.0140**			<0.00500		**1.08**	<0.00500	**0.900**			<0.00500		
	MW-5C	Apr-15		**0.0124**	**0.0172**			0.00115 J		**0.770**	0.000449 J	**0.687**			<0.000380		
	MW-5C	Apr-17		0.00981	**0.0140**			<0.000540		<0.0150	<0.000240	**0.906**			<0.000380		
	MW-5C	Apr-19		0.00761	**0.0128**			0.000815 JB		<0.0150	<0.000240	**0.956**			<0.000380		
	MW-6A	Apr-17		0.00999	**0.0137**			<0.000540		<0.0150	<0.000240	**0.416**			0.000824 J		
	MW-6A	Apr-18		0.00829	**0.0127**			0.000902 J		**0.186**	0.000497 J	**0.294**			0.000905 J		
	MW-6A	Apr-19		0.00735	**0.0133**			0.000814 JB		<0.0150	0.000483 J	**0.302**			0.000398 J		
	MW-6A	Jun-20		0.00472	**0.0127 J**			<0.00149		**0.378**	<0.00249	**0.262**			<0.000657		
	MW-6B	Mar-13		**0.0320**	**0.0145**			<0.00500		**1.24**	<0.00500	**2.84**			<0.00500		
	MW-6B	Mar-13	FD	**0.0336**	**0.0173**			<0.00500		**1.23**	<0.00500	**3.03**			<0.00500		
	MW-6B	Apr-15		**0.0319**	**0.0186**			<0.000540		**1.21**	<0.000240	**3.52**			<0.000380		
	MW-6B	Apr-17		0.00863	**0.0141**			<0.000540		<0.0150	<0.000240	**1.01**			<0.000380		
	MW-6B	Apr-19		**0.0303**	**0.0141**			<0.000540		<0.0150	0.000822 J	**2.38**			<0.000380		
	MW-7A	Apr-18		**0.0254**	**0.0152**			<0.000540		**4.66**	<0.000240	**0.499**			<0.000380		
	MW-7A	Apr-18	FD	**0.0251**	**0.0160**			<0.000540		**4.57**	<0.000240	**0.516**			<0.000380		
	MW-7A	Oct-18															
	MW-7A	Oct-18	FD														
	MW-7A	Apr-19		**0.0118**	**0.0145**			0.000941 JB		<0.0150	0.000874 J	**0.429**			0.000459 J		
	MW-7A	Apr-19	FD	**0.0126**	**0.0147**			0.000879 J		**0.0183 J**	<0.000240	**0.429**			<0.000380		
	MW-7A	Oct-19															
	MW-7A	Oct-19	FD														
	MW-7A	Jun-20		**0.0163**	**0.0139 J**			<0.00149		**1.99**	<0.00249	**0.421**			<0.000657		
	MW-7A	Jun-20	FD	**0.0175**	**0.0148 J**			<0.00149		**2.16**	<0.00249	**0.447**			<0.000657		
	MW-7A	Oct-20															
	MW-7A	Oct-20	FD														
	MW-7B	Apr-13		<0.0100	**0.0114**			<0.0100		<0.400	<0.0100	**0.358**			<0.0100		
	MW-7B	Apr-15		0.00529	**0.0110**			<0.000540		**0.0879 J**	<0.000240	**0.541 J**			<0.000380		
	MW-7B	Apr-17		0.00373	**0.0118**			<0.000540		<0.0150	<0.000240	**0.493**			<0.000380		
	MW-7B	Apr-19		0.00346	**0.0107**			<0.000540		<0.0150	0.000722 J	**0.486**			<0.000380		
	MW-10	Apr-18		**0.0149**	**0.0138**			0.00545		**0.113**	0.000258 J	**2.73**			<0.000380		
	MW-10	Oct-18															
	MW-10	Apr-19		**0.0159**	**0.0125**			0.00112 J		<0.0150	0.000444 J	**2.59**			0.000549 J		
	MW-10	Oct-19															
	MW-10	Jun-20		**0.0142**	**0.0131 J**			<0.00149		**0.176**	<0.00249	**2.11**			<0.000657		
	MW-10	Oct-20															
	MW-11A	Apr-18		0.000357 J	**0.0309**			0.00200 JB		**0.536**	<0.000240	**0.306**			0.000600 J		
	MW-11A	Oct-18															
	MW-11A	Apr-19		<0.000250	**0.0271**			<0.000540		<0.0150	0.000608 JB	**0.233**			<0.000380		
	MW-11A	Oct-19															
	MW-11A	Jun-20		<0.000735	**0.0310**			<0.00149		**1.11**	<0.00249	**1.53**			<0.000657		
	MW-11A	Oct-20															
	MW-11B	Mar-13		<0.0250	<0.0250			<0.0250		**3.62**	<0.0250	**0.365**			<0.0250		
	MW-11B	Apr-15		0.00458 J	**0.0187 J**			<0.00270		**3.59**	<0.00120	**0.376**			<0.00190		
	MW-11B	Apr-17		0.00103 J	**0.0188**			<0.000540		**0.0826 J**	<0.000240	**0.370**			<0.000380		
	MW-11B	Apr-19		0.00108 J	**0.0185**			<0.000540		<0.0150	0.000794 JB	**0.372**			<0.000380		

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-15	Apr-17		**0.0132**	**0.0182**			0.000671 J		<0.0150	0.000257 J	**0.180**			0.000506 J		
	MW-15	Apr-18		**0.0171**	**0.0210**			<0.000540		<0.0150	0.000498 J	**0.388**			0.00122 J		
	MW-15	Apr-19		**0.0195**	**0.0203**			0.00141 J		<0.0150	0.00107 JB	**0.125**			0.000792 J		
	MW-15	Jun-20		0.00780	**0.0156 J**			<0.00149		<0.0489	<0.00249	**0.543**			<0.000657		
	MW-18A	Apr-18		0.00509	**0.0165**	**2.23**	<0.000160	<0.000540	0.00107 J	**0.0239 JB**	<0.000240	**0.527**	<0.0000490	0.00883	<0.000380	**0.0362**	0.000373 J
	MW-18A	Oct-18															
	MW-18A	Apr-19		0.00472	**0.0161**	**2.05**	<0.000160	<0.000540	0.00121 J	<0.0150	<0.000240	**0.330**	<0.0000490	0.00985	0.00222	**0.0314**	0.000714 J
	MW-18A	Oct-19															
	MW-18A	Jun-20		0.00447	**0.0168 J**	**1.92**	<0.000478	<0.00149	<0.000477	**1.74**	<0.00249	**1.23**	<0.000100	0.00766	<0.000657	**0.0258**	<0.000986
	MW-18A	Oct-20															
	MW-18B	Apr-13		0.00781	**0.0119**			<0.00500		<0.200	<0.00500	**0.657**			<0.00500		
	MW-18B	Apr-15		**0.0104**	**0.0116**			<0.000540		**0.0398 J**	<0.000240	**0.723**			<0.000380		
	MW-18B	Apr-17		0.00962	**0.0130**			<0.000540		<0.0150	<0.000240	**0.897**			<0.000380		
	MW-18B	Apr-19		**0.0105**	**0.0136**			0.00157 J		**0.0189 J**	<0.000240	**0.896**			0.000617 J		
	MW-22A	Apr-18		**0.0298**	**0.0161**			<0.000540		**1.29**	<0.000240	**6.15**			0.000519 J		
	MW-22A	Apr-18	FD	**0.0308**	**0.0156**			<0.000540		**1.06**	<0.000240	**6.27**			0.000837 J		
	MW-22A	Oct-18															
	MW-22A	Oct-18	FD														
	MW-22A	Apr-19		**0.0285**	**0.0151**			0.000917 J		**0.0233 J**	<0.000240	**5.36**			0.000471 J		
	MW-22A	Apr-19	FD	**0.0265**	**0.0153**			0.000816 J		**0.0283 J**	0.000472 JB	**5.73**			0.000831 J		
	MW-22A	Oct-19															
	MW-22A	Oct-19	FD														
	MW-22A	Jun-20		**0.0260**	**0.0181 J**			<0.00149		**0.559**	<0.00249	**2.95**			0.00318		
	MW-22A	Jun-20	FD	**0.0281**	**0.0163 J**			<0.00149		**0.565**	<0.00249	**3.08**			0.00238		
	MW-22A	Oct-20															
	MW-22A	Oct-20	FD														
	MW-22B	Apr-13		**0.0288**	<0.0250			<0.0250		**1.98**	<0.0250	**3.41**			<0.0250		
	MW-22B	Apr-15		**0.0383**	**0.0154 J**			<0.00270		**2.20**	<0.00120	**4.64**			<0.00190		
	MW-22B	Apr-17		**0.0242**	**0.0109**			<0.000540		<0.0150	<0.000240	**3.53**			0.000555 J		
	MW-22B	Apr-19		**0.0270**	**0.0130**			0.00147 J		**0.0304 J**	<0.000240	**4.13**			0.000414 J		
	MW-70	Apr-18		**0.0179**	**0.0165**			<0.000540		**0.780**	<0.000240	**0.420**			<0.000380		
	MW-70	Oct-18															
	MW-70	Apr-19		**0.0174**	**0.0164**			0.00190 J		<0.0150	0.000320 JB	0.00434 J			<0.000380		
	MW-70	Oct-19															
	MW-70	Jun-20		**0.0192**	**0.0150 J**			<0.00149		**3.48**	<0.00249	**0.257**			<0.000657		
	MW-70	Oct-20															
	MW-72	Apr-17		**0.0151**	**0.0217**			<0.000540		<0.0150	<0.000240	**4.20**			0.00180 J		
	MW-72	Apr-18		**0.0149**	**0.0148**			0.000774 J		**1.78**	<0.000240	**3.04**			0.00213		
	MW-72	Apr-19		0.00752	**0.0142**			0.00117 JB		<0.0150	0.000746 J	**1.17**			0.00165 J		
	MW-72	Jun-20		0.00634	**0.0141 J**			<0.00149		**1.01**	<0.00249	**2.14**			0.000890 J		
	MW-73	Apr-17		**0.0642**	0.00740			<0.000540		**0.0403 J**	<0.000240	**0.222**			0.00189 J		
	MW-73	Apr-18		**0.0639**	0.00845			0.000722 J		**1.07**	<0.000240	**1.97**			0.00148 J		
	MW-73	Apr-19		**0.0804**	0.00903			0.00126 J		**0.0212 J**	<0.000240	**0.0172**			0.00547		
	MW-73	Jun-20		**0.0496**	0.00883 J			<0.00149		**2.27**	<0.00249	**2.12**			0.00193 J		
	MW-74	Apr-18		**0.0944**	**0.0129**			0.000610 J		<0.0150	<0.000240	**1.22**			**0.0323**		
	MW-74	Oct-18															
	MW-74	Apr-19		**0.0567**	**0.0118**			<0.000540		**0.358**	<0.000240	**1.45**			**0.0870**		
	MW-74	Oct-19															
	MW-74	Jun-20		**0.0563**	**0.0140 J**			<0.00149		<0.0489	<0.00249	**1.20**			**0.160**		
	MW-74	Oct-20															
	MW-75	Apr-18		**0.0891**	**0.0160**			0.000835 J		**0.175**	0.000466 JB	**0.876**			0.00218		
	MW-75	Oct-18															
	MW-75	Apr-19		**0.0933**	**0.0170**			0.00156 J		**0.0382 J**	<0.000240	**0.930**			0.00227		
	MW-75	Oct-19															
	MW-75	Jun-20		**0.268**	**0.0166 J**			<0.00149		**4.51**	<0.00249	**1.14**			0.00286		
	MW-75	Oct-20															
	MW-76	Apr-18		**0.0504**	**0.0109**			0.00187 J		**3.00**	<0.000240	**0.686**			0.00271		
	MW-76	Oct-18															
	MW-76	Apr-19		**0.0369**	**0.0148**			0.00197 J		**0.0880 J**	<0.000240	**0.659**			0.00350		
	MW-76	Oct-19															
	MW-76	Jun-20		**0.0374**	**0.0113 J**			0.00180 J		**3.20**	<0.00249	**0.764**			0.00314		
	MW-76	Oct-20															
	MW-77	Apr-17		**0.0336**	**0.0101**			0.00772		**0.158**	<0.000240	**0.563**			**0.0101**		
	MW-77	Apr-18		**0.0423**	**0.0108**			0.00949		**5.47**	<0.000240	**0.547**			**0.0112**		
	MW-77	Apr-19		**0.0283**	0.00978			0.00911		**0.157**	<0.000240	**0.596**			**0.0157**		
	MW-77	Jun-20		**0.0404**	**0.0103 J**			0.00801		**8.27**	<0.00249	**0.581**			0.00777		
	MW-78	Apr-17		0.00661	**0.0411**			**0.0388**		**0.0653 J**	<0.000240	**0.473**			0.00868		
	MW-78	Apr-18		0.00899	**0.0443**			**0.132**		**0.0392 J**	0.000479 J	**0.196**			**0.0125**		
	MW-78	Apr-19		0.00674	**0.0480**			**0.252**		**0.0178 J**	<0.000240	**0.0618**			**0.0150**		
	MW-78	Jun-20		**0.0223**	**0.0503**			**0.122**		**6.29**	<0.00249	**0.756**			0.00718		
	MW-79	Apr-18		0.00395	**0.0155**			0.000671 J		**0.0154 J**	<0.000240	**0.267**			0.000757 J		
	MW-79	Oct-18															
	MW-79	Apr-19		0.00559	**0.0180**			0.00103 J		<0.0150	<0.000240	**0.507**			0.00101 J		
	MW-79	Oct-19															
	MW-79	Jun-20		0.00278	**0.0176 J**			<0.00149		**1.04**	<0.00249	**4.61**			<0.000657		
	MW-79	Oct-20															
	MW-80	Apr-17		0.00597	**0.0166**			<0.000540		<0.0150	<0.000240	**0.587**			0.00205		
	MW-80	Apr-18		0.00206	**0.0123**			<0.000540		**0.0447 J**	<0.000240	**0.105**			0.00106 J		
	MW-80	Apr-19		0.00172 J	**0.0153**			0.00142 J		<0.0150	<0.000240	**0.165**			<0.000380		
	MW-80	Jun-20		0.00174 J	**0.0129 J**			<0.00149		**0.140**	<0.00249	**1.39**			<0.000657		
	MW-81	Apr-17		**0.0160**	**0.0144**			<0.000540		<0.0150	<0.000240	0.00250 J			**0.0169**		
	MW-81	Apr-18		0.00772	**0.0129**			0.000790 J		<0.0150	<0.000240	**0.0233**			0.00569		
	MW-81	Apr-19		0.00756	**0.0138**			<0.000540		<0.0150	0.000251 J	**0.0297**			0.00604		
	MW-81	Jun-20		0.00396	**0.0109 J**			<0.00149		<0.0489	<0.00249	**0.474**			0.00297		
	MW-82	Apr-17		**0.0326**	**0.0260**			<0.000540		**0.0479 J**	<0.000240	**1.97 V**			0.00125 J		
	MW-82	Apr-18		**0.0274**	**0.0232**			0.00115 J		**0.0685 J**	<0.000240	**1.99**			0.000871 J		
	MW-82	Apr-19		**0.0309**	**0.0260**			0.00151 J		<0.0150	<0.000240	**1.84**			0.00106 J		
	MW-82	Jun-20		**0.0974**	**0.0226**			<0.00149		**4.09**	<0.00249	**2.23**			0.00109 J		
	MW-83	Apr-18		**0.0522**	**0.0314**			0.00788		**3.11**	0.000452 J	**0.336**			0.00203		
	MW-83	Oct-18															
	MW-83	Apr-19		**0.0195**	**0.0148**			0.00204 B		**0.0211 JB**	0.000594 J	**0.448**			**0.0110**		
	MW-83	Oct-19															
	MW-83	Jun-20		**0.0372**	**0.0227**			0.00278		**0.0650 J**	<0.00249	**0.336**			**0.0102**		
	MW-83	Oct-20															
	MW-84	Apr-18		**0.0777**	**0.0129**			0.00224		**0.378**	0.000259 J	**2.67**			0.00450		
	MW-84	Oct-18															
	MW-84	Apr-19		**0.0755**	**0.0146**			0.00191 JB		**0.0465 JB**	0.000463 J	**2.55**			0.00455		
	MW-84	Oct-19															
	MW-84	Jun-20		**0.144**	**0.0129 J**			0.00557		**5.90**	<0.00249	**2.52**			0.00816		
	MW-84	Oct-20															
	MW-86	Jun-20		**0.102**	**0.0223**	**0.617**	<0.000478	**0.0508**	<0.000477	**0.944**	<0.00249	**0.155**	0.000109 J	0.00699	0.00794	<0.00754	**0.0206**
	MW-86	Oct-20															

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Evaporation Ponds	MW-87	Apr-18		0.00587	**0.0158**			0.000970 JB		**0.986**	<0.000240	**0.689**			<0.000380		
	MW-87	Oct-18															
	MW-87	Apr-19		0.00466	**0.0143**			0.000941 J		<0.0150	0.000335 JB	**0.165**			0.000566 J		
	MW-87	Oct-19															
	MW-87	Jun-20		0.00454	**0.0162 J**			<0.00149		<0.0489	<0.00249	**3.02**			<0.000657		
	MW-87	Oct-20															
	MW-88	Apr-18		0.00679	**0.0111**			<0.000540		<0.0150	<0.000240	**0.922**			<0.000380		
	MW-88	Oct-18															
	MW-88	Apr-19		0.00740	0.00970			0.00240		<0.0150	0.000289 J	**0.952**			<0.000380		
	MW-88	Oct-19															
	MW-88	Jun-20		0.00595	**0.0115 J**			<0.00149		<0.0489	<0.00249	**0.869**			<0.000657		
	MW-88	Oct-20															
	MW-120	Apr-18		**0.0107**	**0.0110**			<0.000540		**3.72**	0.000518 J	**1.25**			<0.000380		
	MW-120	Oct-18															
	MW-120	Apr-19		0.00471	**0.0107**			<0.000540		<0.0150	0.000741 J	**1.22**			0.00136 J		
	MW-120	Oct-19															
	MW-120	Jun-20		0.00646	0.00974 J			<0.00149		**3.08**	<0.00249	**1.06**			<0.000657		
	MW-120	Oct-20															
	MW-121	Apr-18		**0.0291**	**0.0107**			<0.000540		**0.235**	<0.000240	**2.42**			0.00498		
	MW-121	Oct-18															
	MW-121	Apr-19		**0.0310**	**0.0117**			0.000893 JB		<0.0150	0.000902 J	**2.13** O1V			0.00647		
	MW-121	Oct-19															
	MW-121	Jun-20		**0.0253**	**0.0109 J**			<0.00149		<0.0489	<0.00249	**2.16**			0.00388		
	MW-121	Oct-20															
	MW-122	Apr-18		0.00138 J	**0.0201**			<0.000540		**0.305**	<0.000240	**0.741**			0.000579 J		
	MW-122	Oct-18															
	MW-122	Apr-19		0.00118 J	**0.0227**			<0.000540		<0.0150	0.000932 J	**1.05**			0.000967 J		
	MW-122	Oct-19															
	MW-122	Jun-20		0.00365	**0.0194 J**			<0.00149		**1.85**	<0.00249	**1.05**			<0.000657		
	MW-122	Oct-20															
	MW-123	Apr-18		**0.0216**	**0.0220**			<0.000540		<0.0150	<0.000240	**2.87**			0.000629 J		
	MW-123	Oct-18															
	MW-123	Apr-19		**0.0208**	**0.0248**			0.00259		<0.0150	0.000588 J	**2.68**			<0.000380		
	MW-123	Oct-19															
	MW-123	Jun-20		**0.0178**	**0.0316**			<0.00149		<0.0489	<0.00249	**3.21**			<0.000657		
	MW-123	Oct-20															
	MW-124	Apr-18		0.00155 J	**0.0185**			0.000834 JB		**3.49**	<0.000240	**0.530**			<0.000380		
	MW-124	Oct-18															
	MW-124	Apr-19		0.000279 J	**0.0182**			0.000833 J		<0.0150	<0.000240	**0.461**			<0.000380		
	MW-124	Oct-19															
	MW-124	Jun-20		0.00127 J	**0.0182 J**			<0.00149		**4.91**	<0.00249	**0.411**			<0.000657		
	MW-124	Oct-20															
	OCD-1R	Apr-18		0.00359	**0.0154**			<0.000540		**0.0172 JB**	<0.000240	**0.288**			0.00152 J		
	OCD-1R	Oct-18															
	OCD-1R	Apr-19		0.00260	**0.0165**			0.00266		<0.0150	<0.000240	**0.310**			0.000567 J		
	OCD-1R	Oct-19															
	OCD-1R	Jun-20		0.00322	**0.0186 J**			<0.00149		**1.07**	<0.00249	**1.98**			<0.000657		
	OCD-1R	Oct-20															
	OCD-2A	Apr-18		0.00192 J	**0.0167**			<0.000540		**1.93**	<0.000240	**0.651**			0.000595 J		
	OCD-2A	Oct-18															
	OCD-2A	Apr-19		0.000734 J	**0.0232**			0.00205		<0.0150	<0.000240	**0.241**			<0.000380		
	OCD-2A	Oct-19															
	OCD-2A	Jun-20		0.00138 J	**0.0201**			<0.00149		**1.95**	<0.00249	**1.48 V**			<0.000657		
	OCD-2A	Oct-20															
	OCD-3	Apr-18		0.000894 J	**0.0236**			<0.000540		**0.823**	<0.000240	**0.392**			0.000544 J		
	OCD-3	Oct-18															
	OCD-3	Apr-19		0.000590 J	**0.0192**			0.00283		<0.0150	0.000333 J	**0.123**			<0.000380		
	OCD-3	Oct-19															
	OCD-3	Jun-20		0.000822 J	**0.0181 J**			<0.00149		**0.102**	<0.00249	**0.511**			<0.000657		
	OCD-3	Oct-20															
	OCD-4	Apr-18		0.00102 J	**0.0231**			<0.000540		**0.519**	<0.000240	**0.0541**			0.000539 J		
	OCD-4	Oct-18															
	OCD-4	Apr-19		0.000292 J	**0.0220**			0.00199 J		<0.0150	<0.000240	**0.166**			<0.000380		
	OCD-4	Oct-19															
	OCD-4	Jun-20		0.00262	**0.0233**			<0.00149		**2.66**	<0.00249	**0.293**			<0.000657		
	OCD-4	Oct-20															
	OCD-5	Apr-18		0.00319	**0.0233**			<0.000540		**0.830**	<0.000240	**0.176**			<0.000380		
	OCD-5	Oct-18															
	OCD-5	Apr-19		0.00290	**0.0246**			<0.000540		<0.0150	0.000642 JB	**0.202**			<0.000380		
	OCD-5	Oct-19															
	OCD-5	Jun-20		**0.0123**	**0.0239**			<0.00149		**3.04**	<0.00249	**0.293**			<0.000657		
	OCD-5	Oct-20															
	OCD-6	Apr-18		0.00734	**0.0217**			0.00324		**1.03**	<0.000240	**2.25**			<0.000380		
	OCD-6	Oct-18															
	OCD-6	Apr-19		0.00551	**0.0224**			0.000575 JB		<0.0150	0.000251 J	**2.22**			0.000975 J		
	OCD-6	Oct-19															
	OCD-6	Jun-20		0.00577	**0.0228**			<0.00149		**2.32**	<0.00249	**2.52**			<0.000657		
	OCD-6	Oct-20															
	OCD-7AR	Apr-18		**0.103**	**0.0131**			0.000685 J		**0.471**	0.000266 J	**2.53**			0.00179 J		
	OCD-7AR	Oct-18															
	OCD-7AR	Apr-19		**0.0575**	**0.0114**			<0.000540		**0.0429 JB**	0.000543 J	**0.0525**			0.00206		
	OCD-7AR	Oct-19															
	OCD-7AR	Jun-20		**0.101**	**0.0154 J**			<0.00149		**10.3**	<0.00249	**2.92**			0.00126 J		
	OCD-7AR	Oct-20															
	OCD-7B	Mar-13		<0.00500	**0.0155**			<0.00500		<0.200	<0.00500	<0.00500			<0.00500		
	OCD-7B	Apr-15		0.00304	**0.0178**			0.000838 J		**2.72**	<0.000240	**0.626**			<0.000380		
	OCD-7B	Apr-17		0.00131 J	**0.0195**			<0.000540		<0.0150	<0.000240	**0.667**			<0.000380		
	OCD-7B	Apr-19		0.000838 J	**0.0163**			<0.000540		<0.0150	<0.000240	**0.561**			0.000672 J		
	OCD-8A	Apr-18		**0.0830**	**0.0186**	**0.798**	<0.000160	<0.000540	0.000836 J	**6.88**	<0.000240	**3.87**	<0.0000490	**0.0216**	0.000965 J	0.000903 J	0.000582 J
	OCD-8A	Oct-18															
	OCD-8A	Apr-19		**0.0639**	**0.0138**	**0.731 O1**	<0.000160	0.00304 B	0.000851 J	**0.133 B**	0.000837 J	**3.28**	<0.0000490	**0.0195**	0.00118 J	0.000730 J	0.000228 J
	OCD-8A	Oct-19															
	OCD-8A	Jun-20		**0.0537**	**0.0180 J**	**0.980**	<0.000478	<0.00149	0.00167 J	**3.53**	<0.00249	**2.00**	<0.000100	**0.0379**	0.00187 J	<0.00754	<0.000986
	OCD-8A	Oct-20															
	OCD-8B	Apr-13		<0.0250	<0.0250			<0.0250		<1.00	<0.0250	**0.617**			<0.0250		
	OCD-8B	Apr-15		**0.0113**	**0.0120**			0.000653 J		**0.200**	<0.000240	**5.18**			0.000497 J		
	OCD-8B	Apr-17		0.00910	**0.0127**			<0.000540		**0.0155 J**	<0.000240	**6.46**			<0.000380		
	OCD-8B	Apr-19		0.00878	**0.0133**			0.000655 J		<0.0150	0.000266 JB	**6.75 V**			0.00108 J		
	KWB-1A	Apr-18		0.00373	0.00914	**0.783**	<0.000160	0.00238	0.00503	**0.0224 JB**	<0.000240	**0.399**	<0.0000490	0.00904	0.000469 J	**0.0226**	**0.0233**
	KWB-1A	Oct-18															
	KWB-1A	Apr-19		0.00354	0.00932	**0.769**	<0.000160	<0.000540	0.00351	<0.0150	<0.000240	**0.325**	<0.0000490	0.00933	0.00117 J	**0.0189**	**0.0217**
	KWB-1A	Oct-19															
	KWB-1A	Jun-20		0.00362	0.00833 J	**0.756**	<0.000478	<0.00149	0.00291	<0.0489	<0.00249	**0.306**	<0.000100	0.00802	<0.000657	**0.0150 J**	**0.0241**
	KWB-1A	Oct-20															

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	KWB-1C	Apr-13		<0.0100	**0.0131**			<0.0100		<0.400	<0.0100	<0.0100			<0.0100		
	KWB-1C	Apr-15		0.00297	0.00870			<0.000540		<0.0150	0.000528 J	**0.451**			0.00155 J		
	KWB-1C	Apr-17		0.00303	0.00839			<0.000540		<0.0150	<0.000240	**0.472**			<0.000380		
	KWB-1C	Apr-19		0.00331	0.00878			0.000616 J		<0.0150	0.000282 J	**0.461**			0.000518 J		
	KWB-7	Oct-17															
	KWB-7	Oct-18															
	KWB-7	Jun-20		0.00116 J	**0.0589**	**0.439**	<0.000478	<0.00149	<0.000477	**0.400**	<0.00249	**2.40**	<0.000100	0.00117 J	<0.000657	<0.00754	0.00370 J
	KWB-7	Oct-20															
	KWB-8	Oct-16															
	KWB-8	Apr-17		0.000904 J	**0.0870**	**0.600**	<0.000160	<0.000540	<0.000260	**0.0772 J**	0.000556 J	**1.77**	<0.0000490	0.000663 J	<0.000380	<0.000330	0.00112 J
	KWB-8	Oct-17															
	KWB-8	Oct-20															
	KWB-10R	Apr-17		**0.0115**	**3.39**			<0.000540		**0.281**	0.000478 J	**0.145**			<0.000380		
	KWB-10R	Oct-17															
	KWB-10R	Apr-18		**0.0178**	**4.22**			0.00201		**4.73**	0.00295	**0.182**			<0.000380		
	KWB-10R	Oct-18															
	KWB-11A	Apr-18		0.00547	**0.0231**	**0.473**	<0.000160	0.000575 J	0.00616	**0.315**	0.00129 J	**0.423**	<0.0000490	0.00639	0.00257	**0.0159**	0.00659
	KWB-11A	Oct-18															
	KWB-11A	Apr-19		0.00124 J	**0.0410**	**0.388**	<0.000160	<0.000540	0.00912	<0.0150	0.000399 J	**1.03**	<0.0000490	0.00985	0.00114 J	**0.0124**	0.000252 J
	KWB-11A	Jun-20		**0.0103**	**0.0297**	**0.390**	<0.000478	<0.00149	0.00386	**7.20**	<0.00249	**0.580**	<0.000100	0.00423	0.000928 J	**0.0136 J**	0.00207 J
	KWB-11A	Oct-20															
	KWB-11B	Apr-18		0.00145 J	**0.0131**	**0.171 J**	<0.000160	**0.0320**	0.000364 J	**0.137 B**	<0.000240	0.00464 J	<0.0000490	**0.0157**	**0.0108**	**0.0125**	0.00884
	KWB-11B	Oct-18															
	KWB-11B	Apr-19		0.00143 J	**0.0156**	**0.100 J**	<0.000160	0.00114 J	<0.000260	<0.0150	<0.000240	0.00387 J	<0.0000490	0.00108 J	0.00951	**0.0121**	0.00893
	KWB-11B	Oct-19															
	KWB-11B	Jun-20		0.00138 J	**0.0130 J**	**0.115 J**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00148 J	<0.000100	<0.000952	0.00822	**0.0117 J**	0.00849
	KWB-11B	Oct-20															
	KWB-12A	Oct-18															
	KWB-12A	Oct-19															
	KWB-12A	Jun-20		0.00223	**0.0177 J**	**0.561**	<0.000478	<0.00149	<0.000477	**0.180**	<0.00249	**0.0179**	<0.000100	0.00126 J	0.00343	**0.0265**	**0.0117**
	KWB-12A	Oct-20															
	KWB-12B	Apr-18		0.00167 J	0.00890	**0.594**	0.000179 J	<0.000540	<0.000260	<0.0150	0.000469 JB	0.00191 J	<0.0000490	0.00122 J	0.00352	**0.0294**	**0.0122**
	KWB-12B	Apr-18	FD	0.00159 J	0.00958	**0.573**	<0.000160	0.000621 JB	<0.000260	<0.0150	<0.000240	0.000411 JB	<0.0000490	0.000357 J	0.00298	**0.0301**	**0.0125**
	KWB-12B	Oct-18															
	KWB-12B	Oct-18	FD														
	KWB-12B	Apr-19		0.00168 J	0.00943	**0.787**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.000522 J	<0.0000490	0.00213	0.00320	**0.0273**	**0.0119**
	KWB-12B	Apr-19	FD	0.00159 J	0.00796	**0.644**	<0.000160	<0.000540	<0.000260	<0.0150	0.000544 JB	0.000304 J	<0.0000490	0.000651 J	0.00375	**0.0289**	**0.0120**
	KWB-12B	Oct-19															
	KWB-12B	Oct-19	FD														
	KWB-12B	Jun-20		0.00162 J	0.00864 J	**0.613**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	<0.00132	<0.000100	<0.000952	0.00286	**0.0276**	**0.0127**
	KWB-12B	Jun-20	FD	0.00163 J	0.00779 J	**0.605**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00177 J	<0.000100	<0.000952	0.00391	**0.0271**	**0.0129**
	KWB-12B	Oct-20															
	KWB-12B	Oct-20	FD														
	KWB-P4	Apr-13															
	KWB-P4	Apr-15															
	KWB-P4	Apr-17															
	KWB-P4	Apr-19															
	MW-57	Apr-18		0.00602	**0.0145**			<0.000540		**0.0979 JB**	0.000638 JB	**0.525**			**0.0108**		
	MW-57	Oct-18															
	MW-57	Apr-19		0.00472	**0.0174**			<0.000540		<0.0150	0.000713 JB	**0.458**			**0.0111**		
	MW-57	Oct-19															
	MW-57	Jun-20		0.00282	**0.0136 J**			<0.00149		<0.0489	<0.00249	**0.0458**			**0.0126**		
	MW-57	Oct-20															
	MW-58	Oct-17															
	MW-58	Apr-18		0.00405	**1.47**	**0.517**	<0.000160	<0.000540	<0.000260	**0.160 B**	0.000816 J	**0.219**	<0.0000490	0.000927 J	0.000412 J	<0.000330	0.00108 J
	MW-58	Oct-18															
	MW-58	Oct-19															
	MW-111	Apr-18		0.00961	**0.0522**			<0.000540		**4.79**	0.000253 J	**1.25**			<0.000380		
	MW-111	Oct-18															
	MW-111	Apr-19		0.00770	**0.205**			<0.000540		<0.0150	0.000380 JB	**1.39**			0.000475 J		
	MW-111	Oct-19															
	MW-111	Jun-20		**0.0170**	**0.167**			<0.00149		**5.34**	<0.00249	**1.62**			<0.000657		
	MW-112	Nov-14															
	MW-113	Apr-18		0.00275 J	**0.0214 J**			<0.00270		**0.498 J**	<0.00120	**0.960**			<0.00190		
	MW-113	Apr-18	FD	0.00243	**0.0240**			<0.000540		**0.489**	<0.000240	**0.935**			<0.000380		
	MW-113	Oct-18															
	MW-113	Oct-18	FD														
	MW-113	Apr-19		0.00209	**0.0201**			<0.000540		<0.0150	0.000560 JB	**0.855**			<0.000380		
	MW-113	Apr-19	FD	0.00203	**0.0199**			<0.000540		<0.0150	0.000849 JB	**0.819**			<0.000380		
	MW-113	Oct-19															
	MW-113	Oct-19	FD														
	MW-113	Jun-20		0.00192 J	**0.0245**			<0.00149		**0.776**	<0.00249	**1.31**			<0.000657		
	MW-113	Jun-20	FD	0.00179 J	**0.0239**			<0.00149		**0.777**	<0.00249	**1.30**			<0.000657		
	MW-113	Oct-20															
	MW-113	Oct-20	FD														
	MW-125	Apr-18		0.00345	0.00760			<0.000540		<0.0150	<0.000240	**0.398**			0.00261		
	MW-125	Oct-18															
	MW-125	Apr-19		0.00342	0.00850			<0.000540		<0.0150	<0.000240	**0.439**			0.00297		
	MW-125	Oct-19															
	MW-125	Jun-20		0.00341	0.00972 J			<0.00149		<0.0489	<0.00249	**0.427**			0.00322		
	MW-125	Oct-20															
	MW-126A	Apr-18		0.00225	**0.0177**			0.00329		**0.709**	<0.000240	**0.930**			<0.000380		
	MW-126A	Oct-18															
	MW-126A	Apr-19		0.00116 J	**0.0167**			0.00243		**0.0168 J**	<0.000240	**0.701**			<0.000380		
	MW-126A	Oct-19															
	MW-126A	Jun-20		0.00101 J	**0.0135 J**			<0.00149		**0.350**	<0.00249	**0.620**			<0.000657		
	MW-126A	Oct-20															
	MW-126B	Apr-18		0.00363	**0.0107**			0.00124 J		<0.0150	0.000247 J	**0.0513**			0.00349		
	MW-126B	Oct-18															
	MW-126B	Apr-19		0.00370	**0.0108**			<0.000540		<0.0150	0.000383 J	**0.0475**			0.00469		
	MW-126B	Oct-19															
	MW-126B	Jun-20		0.00390	0.00876 J			<0.00149		<0.0489	<0.00249	**0.0456**			0.00302		
	MW-126B	Oct-20															
	MW-127	Oct-17															
	MW-127	Apr-18		0.00350	**0.0793**			<0.000540		**0.0507 JB**	<0.000240	**0.108**			<0.000380		
	MW-127	Oct-18															
	MW-127	Apr-19		0.00422	**0.0905**			<0.000540		<0.0150	<0.000240	**0.110**			0.000503 J		
	MW-128	Oct-17															
	MW-128	Apr-18		**0.0530**	**0.0634**			<0.000540		**2.60**	0.000403 JB	**1.93**			<0.000380		
	MW-128	Oct-18															
	MW-128	Apr-19		**0.0239**	**0.0554**			<0.000540		<0.0150	<0.000240	**1.74**			<0.000380		
	MW-129	Apr-16		**0.0256**	**0.614**			<0.00270		**5.58**	<0.00120	**1.17**			0.00253 J		
	MW-129	Oct-16															
	MW-129	Apr-17		**0.0152**	**0.585**			<0.000540		<0.0150	<0.000240	**1.03**			0.000611 JB		
	MW-129	Apr-18		**0.0244**	**0.558**			<0.000540		**5.17**	<0.000240	**1.08**			<0.000380		

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
Field East of Refinery	MW-130	Apr-18		0.00432	**0.0195**			<0.000540		**0.0377 J**	0.000283 J	**0.103**			0.00698		
	MW-130	Oct-18															
	MW-130	Apr-19		0.00368	**0.0196**			0.000943 J		<0.0150	0.000292 J	**0.100**			0.00873		
	MW-130	Oct-19															
	MW-130	Jun-20		0.00369	**0.0169 J**			<0.00149		<0.0489	<0.00249	**0.102**			0.00498		
	MW-130	Oct-20															
	MW-131	Apr-17		**0.0183**	**2.48**			<0.000540		<0.0150	<0.000240	**0.309**			0.000632 JB		
	MW-131	Oct-17															
	MW-131	Oct-19															
	MW-131	Jun-20		**0.0237**	**2.32**			<0.00149		**1.30**	<0.00249	**0.300**			<0.000657		
	MW-133	Nov-14															
	MW-133	Apr-15		**0.0102**	**0.138**			<0.000540		**2.59**	0.000513 J	**0.290**			0.00325		
	MW-134	Apr-18		0.00542 J	**0.0102 J**			0.00337 J		<0.0750	0.00129 J	**0.0157 J**			0.00603 J		
	MW-134	Apr-18	FD	0.00435	0.00947			0.000575 JB		<0.0150	<0.000240	**0.0110**			0.00638		
	MW-134	Oct-18															
	MW-134	Oct-18	FD														
	MW-134	Apr-19		0.00396	**0.0104**			0.000776 J		<0.0150	<0.000240	0.00840 B			0.00820		
	MW-134	Apr-19	FD	0.00420	**0.0102**			0.00109 J		<0.0150	0.000274 J	0.00598			0.00724		
	MW-134	Oct-19															
	MW-134	Oct-19	FD														
	MW-134	Jun-20		0.00399	0.00946 J			<0.00149		<0.0489	<0.00249	0.00664			0.00596		
	MW-134	Jun-20	FD	0.00383	0.00852 J			0.00150 J		<0.0489	<0.00249	0.00608			0.00661		
	MW-134	Oct-20															
	MW-134	Oct-20	FD														
	MW-135	Apr-18		0.00335	0.00908			0.00103 J		**0.0191 JB**	0.000295 J	0.00153 J			**0.0275**		
	MW-135	Oct-18															
	MW-135	Apr-19		0.00284	0.00769			0.000910 J		<0.0150	0.000434 J	0.00122 JB			**0.0285**		
	MW-135	Oct-19															
	MW-135	Jun-20		0.00314	<0.00778			<0.00149		<0.0489	<0.00249	<0.00132			**0.0224**		
	MW-135	Oct-20															
	MW-145	Oct-20															
	MW-145	Oct-20	FD														
	MW-146	Oct-20															
	MW-147	Oct-20															
	MW-148	Oct-20															
	RA-4196	Apr-18															
	RA-4196	Oct-18															
	RA-4196	Apr-19															
	RA-4196	Oct-19															
	RA-4196	Jun-20															
	RA-4196	Oct-20															
	RA-4798	Apr-18															
	RA-4798	Oct-18															
	RA-4798	Apr-19															
	RA-4798	Oct-19															
	RA-4798	Jun-20															
	RA-4798	Oct-20															
	RW-12R	Apr-17		0.000617 J	**0.0410**			**0.0230**		<0.0150	0.000776 J	**0.425**			0.000720 JB		
	RW-12R	Apr-18		<0.00125	**0.0341**			0.00339 J		<0.0750	<0.00120	**0.760**			<0.00190		
	RW-12R	Apr-19		<0.000250	**0.0317 O1**			0.00286		<0.0150	0.000497 JB	**1.20 O1V**			<0.000380		
	RW-12R	Jun-20		<0.000735	**0.0348**			**0.0266**		<0.0489	<0.00249	**1.41**			<0.000657		
	RW-13R	Apr-16		0.00890 J	**0.0888**			<0.00270		**0.470 J**	<0.00120	**1.36**			<0.00190		
	RW-13R	Apr-18		<0.00125	**0.0490**			<0.00270		**0.352 J**	<0.00120	**1.03**			<0.00190		
	RW-18A	Apr-17		0.00331	**0.0105**			<0.000540		**0.0200 J**	<0.000240	0.00103 J			0.00340		
	RW-18A	Apr-18		0.00355	**0.0118**			<0.000540		<0.0150	<0.000240	0.00395 J			0.00389		
	RW-18A	Apr-19		0.00289	**0.0116**			<0.000540		<0.0150	<0.000240	0.00167 JB			0.00404		
	RW-18A	Jun-20		0.00253	**0.0103 J**			<0.00149		**0.0508 J**	<0.00249	0.00789			0.00517		
	RW-20	Apr-15		0.00171 J	**0.464**			<0.000540		**0.270**	<0.000240	**0.717**			0.00488		
	RW-22	Apr-15		<0.00250	**0.802**			<0.00540		**0.394 J**	0.00305 J	**0.886**			**0.0326**		
NCL	MW-18	Apr-17		0.00373	**0.0211**	**1.50**	<0.000160	0.00176 JB	0.000362 J	<0.0150	<0.000240	0.00248 J	<0.0000490	0.00198 JB	**0.0155**	**0.0242**	**0.0198**
	MW-18	Apr-18		0.00297	**0.0148**	**1.39**	<0.000160	**0.0156**	<0.000260	**0.113 B**	<0.000240	0.00722	<0.0000490	0.00204	**0.0155**	**0.0403**	**0.0177**
	MW-18	Apr-19		0.00296	**0.0180**	**1.56**	<0.000160	0.00272 B	<0.000260	<0.0150	0.000333 J	0.00172 JB	<0.0000490	0.00142 J	**0.0154**	**0.0255**	**0.0159**
	MW-18	Jun-20		0.00297	**0.0128 J**	**2.49**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.0131**	<0.000100	0.00166 J	0.00785	**0.0442**	**0.0181**
	MW-45	Apr-18		0.00359	**0.0158**	**0.631**	<0.000160	<0.000540	<0.000260	**0.734**	0.000338 J	**0.474**	<0.0000490	0.00433	0.000617 J	0.000930 J	0.000441 J
	MW-45	Oct-18															
	MW-45	Apr-19		0.00326	**0.0154**	**0.613**	<0.000160	<0.000540	<0.000260	**0.105**	<0.000240	**0.456**	<0.0000490	0.00508	<0.000380	0.00118 J	0.000406 J
	MW-45	Oct-19															
	MW-45	Jun-20		0.00386	**0.0132 J**	**0.566**	<0.000478	<0.00149	<0.000477	**0.967**	<0.00249	**0.502**	<0.000100	0.00643	<0.000657	<0.00754	<0.000986
	MW-45	Oct-20															
	MW-53	Apr-16		0.00166 J	**0.0246 J**			<0.00270		<0.0750	<0.00120	**0.605**			0.00498 J		
	MW-53	Apr-17		0.00162 J	**0.0210**			<0.000540		<0.0150	<0.000240	**1.50**			0.00293		
	MW-53	Apr-18		0.00144 J	**0.0197**			<0.000540		<0.0150	<0.000240	**0.437**			0.00109 J		
	MW-53	Apr-19		0.00170 J	**0.0153**			<0.000540		**0.0285 JB**	<0.000240	**0.380**			0.000569 J		
	MW-53R	Oct-20															
	MW-54A	Apr-18		0.00347	**0.0166**			<0.000540		**0.0258 J**	0.000275 J	**0.525**			0.000398 J		
	MW-54A	Oct-18															
	MW-54A	Apr-19		0.00381	**0.0152**			<0.000540		<0.0150	0.000465 JB	**0.582**			<0.000380		
	MW-54A	Oct-19															
	MW-54A	Jun-20		0.00496	**0.0159 J**			<0.00149		**0.0929 J**	<0.00249	**0.633**			<0.000657		
	MW-54A	Oct-20															
	MW-54B	Apr-13		<0.00500	**0.0157**			<0.00500		<0.200	<0.00500	**0.138**			<0.00500		
	MW-54B	Apr-15		0.00205	**0.0150**			<0.000540		**0.0456 J**	<0.000240	**0.164**			0.00289		
	MW-54B	Apr-17		0.00173 J	**0.0168**			<0.000540		<0.0150	<0.000240	**0.246**			0.000795 J		
	MW-54B	Apr-19		0.00210	**0.0158**			<0.000540		<0.0150	0.000281 JB	**0.211**			0.000505 J		
	MW-55	Apr-18		0.00562	**0.0120**	**1.50**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	**0.114**	<0.0000490	0.00608	0.00365	**0.0518**	**0.0189**
	MW-55	Oct-18															
	MW-55	Apr-19		0.00521	**0.0110**	**1.37**	0.000307 J	0.00164 JB	0.000360 J	**0.0552 J**	0.000428 J	**0.0571**	0.0000850 J	0.00614	0.00579	**0.0549**	**0.0184**
	MW-55	Oct-19															
	MW-55	Jun-20		0.00696	**0.0122 J**	**0.985**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.166**	<0.000100	0.00645	0.000735 J	**0.0513**	**0.0214**
	MW-55	Oct-20															
	MW-56	Apr-17		0.00665	**0.0174**			<0.000540		<0.0150	0.000369 J	**0.339**			0.00306		
	MW-56	Apr-18		0.00638	**0.0139**			0.000557 JB		<0.0150	0.000333 J	**0.305**			0.000537 J		
	MW-56	Apr-19		0.00597	**0.0107**			<0.000540		<0.0150	0.000471 JB	**0.328**			0.000934 J		
	MW-56	Jun-20		0.00665	**0.0113 J**			<0.00149		<0.0489	<0.00249	**0.342**			<0.000657		
	MW-108	Apr-18		0.00287	**0.0467**			0.00517 B		**0.0524 JB**	0.00141 J	**0.0347**			0.000610 J		
	MW-108	Oct-18															
	MW-108	Apr-19		0.00211	**0.0330**			0.00101 J		<0.0150	0.000767 JB	**0.0233**			<0.000380		
	MW-108	Oct-19															
	MW-108	Jun-20		0.00121 J	**0.0427**			<0.00149		<0.0489	<0.00249	**0.0364**			<0.000657		
	MW-108	Oct-20															
	NCL-31	Apr-18		**0.0115**	**0.0141**			0.00103 JB		**0.899**	<0.000240	**2.04**			<0.000380		
	NCL-31	Oct-18															
	NCL-31	Apr-19		0.00546	**0.0133**			<0.000540		**0.0165 JB**	<0.000240	**1.98**			<0.000380		
	NCL-31	Oct-19															
	NCL-31	Jun-20		**0.0135**	**0.0116 J**			<0.00149		**0.720**	<0.00249	**2.31**			<0.000657		
	NCL-31	Oct-20															

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
NCL	NCL-32	Apr-18		0.00327	**0.0189**			0.00348 B		**0.0315 JB**	0.000265 J	**0.954**			0.00189 J		
	NCL-32	Oct-18															
	NCL-32	Apr-19		0.00226	**0.0168**			<0.000540		<0.0150	0.000317 JB	**1.11**			0.00261		
	NCL-32	Oct-19															
	NCL-32	Jun-20		0.00233	**0.0169 J**			<0.00149		<0.0489	<0.00249	**1.31**			0.00326		
	NCL-32	Oct-20															
	NCL-33	Apr-18		0.00221	**0.0217**			<0.000540		**0.695**	<0.000240	**0.117**			0.000554 J		
	NCL-33	Oct-18															
	NCL-33	Apr-19		0.00168 **J**	**0.0261**			<0.000540		**0.0284 J**	0.000524 J	**0.0983**			<0.000380		
	NCL-33	Oct-19															
	NCL-33	Jun-20		0.00369	**0.0263**			<0.00149		**2.79**	<0.00249	**0.205**			0.00192 J		
	NCL-33	Oct-20															
	NCL-34A	Apr-18		0.000682 **J**	**0.472**			<0.000540		<0.0150	<0.000240	**0.0224**			<0.000380		
	NCL-34A	Oct-18															
	NCL-34A	Apr-19		0.000603 J	**0.947**			<0.000540		<0.0150	<0.000240	**0.0159**			<0.000380		
	NCL-34A	Oct-19															
	NCL-34A	Jun-20		<0.000735	**0.229**			<0.00149		<0.0489	<0.00249	**0.0415**			<0.000657		
	NCL-44	Apr-18		**0.0310**	**0.0234**			<0.000540		**0.828**	<0.000240	**0.887**			<0.000380		
	NCL-44	Oct-18															
	NCL-44	Apr-19		**0.0183**	**0.0197**			<0.000540		<0.0150	0.000409 JB	**0.891**			0.000410 J		
	NCL-44	Oct-19															
	NCL-44	Jun-20		**0.0273**	**0.0214**			<0.00149		**0.787**	<0.00249	**0.905 V**			<0.000657		
	NCL-44	Oct-20															
	NCL-49	Apr-18		0.00167 J	**0.0126**			<0.000540		<0.0150	0.000260 J	0.00138 J			**0.0115**		
	NCL-49	Apr-18	FD	0.00149 **J**	**0.0127**			<0.000540		<0.0150	<0.000240	0.00114 J			**0.0122**		
	NCL-49	Oct-18															
	NCL-49	Oct-18	FD														
	NCL-49	Apr-19		0.00148 J	**0.0124**			<0.000540		<0.0150	0.00105 JB	0.000453 J			0.00801		
	NCL-49	Apr-19	FD	0.00131 **J**	**0.0125**			<0.000540		<0.0150	<0.000240	<0.000250			0.00728		
	NCL-49	Oct-19															
	NCL-49	Oct-19	FD														
	NCL-49	Jun-20		0.00149 J	**0.0135 J**			<0.00149		<0.0489	<0.00249	0.00448 J			0.00782		
	NCL-49	Jun-20	FD	0.00165 J	**0.0138 J**			<0.00149		<0.0489	<0.00249	0.00492 J			0.00785		
	NCL-49	Oct-20															
	NCL-49	Oct-20	FD														
North Refinery	MW-23	Apr-18		0.00502	**9.89**			0.000579 JB		**0.0160 J**	0.000791 J	**0.0741**			0.000725 J		
	MW-23	Oct-18															
	MW-23	Apr-19		0.00417	**7.78**			<0.000540		<0.0150	0.000775 J	**0.0646**			0.000900 J		
	MW-23	Oct-19															
	MW-23	Jun-20		0.00639	**9.73**			<0.00149		<0.0489	<0.00249	**0.0725**			<0.000657		
	MW-23	Oct-20															
	MW-29	Apr-18		0.00138 J	**0.0197**			0.00128 JB		**0.0666 J**	<0.000240	**0.474**			<0.000380		
	MW-29	Oct-18															
	MW-29	Apr-19		0.00187 J	**0.0170**			0.000726 J		<0.0150	0.000664 JB	**0.540 V**			0.000515 J		
	MW-29	Oct-19															
	MW-29	Jun-20		0.00598	**0.0170 J**			<0.00149		<0.0489	<0.00249	**0.249**			0.00119 J		
	MW-29	Oct-20															
	MW-39	Apr-18		**0.0105**	**0.0190**			<0.000540		<0.0150	0.000243 J	**0.0186**			<0.000380		
	MW-39	Oct-18															
	MW-39	Apr-19		0.00759	**0.0118**			<0.000540		<0.0150	<0.000240	**0.0227**			0.000391 J		
	MW-39	Oct-19															
	MW-39	Jun-20		0.00754	**0.0141 J**			<0.00149		<0.0489	<0.00249	**0.0417**			<0.000657		
	MW-39	Oct-20															
	MW-40	Apr-17		0.00103 J	**0.0255**			<0.000540		<0.0150	<0.000240	**0.0249**			<0.000380		
	MW-40	Apr-18		0.00213	**0.0247**			**0.0314**		**0.143**	0.00213	**0.0190**			0.00164 J		
	MW-40	Apr-19		0.000780 J	**0.0199**			<0.000540		<0.0150	<0.000240	**0.0133**			<0.000380		
	MW-40	Jun-20		<0.000735	**0.0204**			<0.00149		<0.0489	<0.00249	**0.0260**			<0.000657		
	MW-41	Apr-17		0.00393	**0.0145**			<0.000540		<0.0150	<0.000240	**0.790**			0.00126 J		
	MW-41	Apr-18		0.00774	**0.0206**			0.00773		**0.0416 J**	0.000558 J	**0.996**			0.000464 J		
	MW-41	Apr-19		0.00703	**0.0275**			<0.000540		<0.0150	0.000393 JB	**0.819**			<0.000380		
	MW-41	Jun-20		**0.0101**	**0.0175 J**			<0.00149		<0.0489	<0.00249	**0.838**			<0.000657		
	MW-42	Apr-17		0.00487	**0.0179**			<0.000540		**0.0328 J**	0.000254 J	**0.180**			0.00156 J		
	MW-42	Apr-18		0.00531	**0.0204**			0.000739 JB		<0.0150	0.000575 J	**0.118**			0.000448 J		
	MW-42	Apr-19		0.00472	**0.0201**			<0.000540		<0.0150	<0.000240	**0.104**			<0.000380		
	MW-42	Jun-20		0.00551	**0.0189 J**			<0.00149		<0.0489	<0.00249	**0.156**			<0.000657		
	MW-43	Apr-18		**0.0121**	**0.195**	**1.29**	<0.000160	<0.000540	<0.000260	<0.0150	0.000387 JB	**0.148**	<0.0000490	0.00629	0.00150 J	<0.000330	0.00143 J
	MW-43	Oct-18															
	MW-43	Apr-19		0.00728	**0.435**	**1.11**	<0.000160	<0.000540	<0.000260	<0.0150	0.000341 J	**0.159**	<0.0000490	0.00605	0.000682 J	<0.000330	0.000959 J
	MW-43	Oct-19															
	MW-43	Jun-20		0.00613	**0.413**	**0.790**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.297**	<0.000100	0.00507	<0.000657	<0.00754	0.00336 J
	MW-43	Oct-20															
	MW-59	Apr-17		**0.0260**	**0.0210**			<0.000540		**0.0343 J**	<0.000240	**0.468**			0.000557 JB		
	MW-59	Apr-18		**0.0223**	**0.0246**			<0.000540		**0.0876 JB**	0.000405 JB	**0.427**			<0.000380		
	MW-59	Apr-19		**0.0215**	**0.0190**			<0.000540		<0.0150	<0.000240	**0.374**			<0.000380		
	MW-59	Jun-20		**0.0357**	**0.0178 J**			<0.00149		**0.0695 J**	<0.00249	**0.364**			<0.000657		
	MW-60	Apr-18		0.00496	**0.0192**	**0.526**	<0.000160	<0.000540	<0.000260	**0.0194 JB**	0.000505 JB	**0.274**	<0.0000490	0.000576 J	<0.000380	0.00203 J	0.000221 J
	MW-60	Apr-18	FD	0.00472	**0.0201**	**0.514**	<0.000160	0.00120 JB	<0.000260	**0.0837 J**	0.000771 J	**0.292**	<0.0000490	0.00124 J	<0.000380	0.00209 J	0.000377 J
	MW-60	Oct-18															
	MW-60	Oct-18	FD														
	MW-60	Apr-19		0.00618	**0.0190**	**0.729**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	**0.211**	<0.0000490	0.000797 J	<0.000380	0.00120 J	0.000293 J
	MW-60	Apr-19	FD	0.00559	**0.0199**	**0.732**	<0.000160	<0.000540	<0.000260	**0.0189 J**	0.000395 J	**0.226**	<0.0000490	0.00272	<0.000380	0.00138 J	0.000301 J
	MW-60	Oct-19															
	MW-60	Oct-19	FD														
	MW-60	Jun-20		0.00557	**0.0188 J**	**0.454**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.240**	<0.000100 J6	0.00164 J	<0.000657	<0.00754	<0.000986
	MW-60	Jun-20	FD	0.00547	**0.0186 J**	**0.448**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.241**	<0.000100	0.00123 J	<0.000657	<0.00754	<0.000986
	MW-60	Oct-20															
	MW-60	Oct-20	FD														
	MW-61	Apr-18		0.00185 J	**0.0307**			0.00112 J		**0.0155 JB**	0.00192 JB	**0.0183**			<0.000380		
	MW-61	Oct-18															
	MW-61	Apr-19		0.00378	**0.0335**			<0.000540		<0.0150	0.00139 J	**0.0128**			<0.000380		
	MW-61	Oct-19															
	MW-61	Jun-20		0.00315	**0.0464**			<0.00149		<0.0489	0.00263 J	**0.0207**			<0.000657		
	MW-61	Oct-20															
	MW-62	Apr-18		0.00834	**0.0403**			<0.000540		<0.0150	0.000347 JB	0.00427 J			0.000514 J		
	MW-62	Oct-18															
	MW-62	Apr-19		**0.0115**	**0.0544**			<0.000540		<0.0150	<0.000240	0.00401 J			0.000412 J		
	MW-62	Oct-19															
	MW-62	Jun-20		**0.0450**	**0.0562**			<0.00149		<0.0489	<0.00249	0.00690			<0.000657		
	MW-62	Oct-20															
	MW-62R	Oct-20															
	MW-67	Oct-17															
	MW-67	Apr-18		0.00676	**0.0921**	**0.470**	<0.000160	0.000938 J	<0.000260	<0.0150	0.000391 J	**0.0930**	<0.0000490	0.000912 J	<0.000380	<0.000330	0.000590 J
	MW-67	Oct-18															
	MW-67	Apr-19		0.00778	**0.0907**	**0.408**	<0.000160	0.000857 J	<0.000260	<0.0150	0.000639 J	**0.0930**	<0.0000490	0.00233	<0.000380	<0.000330	0.000472 J
	MW-90	Apr-18		0.00225	**0.0166**			<0.000540		<0.0150	<0.000240	**0.0330**			0.000611 J		
	MW-90	Oct-18															
	MW-90	Apr-19		0.00222	**0.0161**			0.000751 J		<0.0150	0.000355 J	**0.0668**			0.000741 J		

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:		Dissolved Metals													
		Analyte:		Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
		Units:		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:		0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
		CGWSL Source:		WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup														
North Refinery	MW-90	Oct-19															
	MW-90	Jun-20		0.00285	**0.0146 J**			<0.00149		**0.273**	<0.00249	**0.0892**			<0.000657		
	MW-90	Oct-20															
	MW-91	Apr-18		0.00616	**0.0432**			0.00125 J		<0.0150	0.00312	0.00285 J			0.000491 J		
	MW-91	Oct-18															
	MW-91	Apr-19		0.00427	**0.0470**			0.000589 J		<0.0150	0.00196 J	0.00753			**0.0188**		
	MW-91	Oct-19															
	MW-91	Jun-20		0.00555	**0.0603**			<0.00149		<0.0489	0.00498 J	0.00244 J			<0.000657		
	MW-92	Apr-16		0.00285 J	**3.57**			<0.00270		**0.217 J**	<0.00120	**0.0349**			<0.00190		
	MW-92	Oct-16															
	MW-93	Apr-17		0.00375	**0.0210**			0.00235		**0.0197 J**	0.000486 J	**0.0255**			**0.0145**		
	MW-93	Apr-18		0.00554	**0.0288**			0.00278		<0.0150	0.000746 JB	**0.0282**			0.00375		
	MW-93	Apr-19		0.00774	**0.0326**			0.00134 J		<0.0150	0.000308 J	**0.0551**			0.00347		
	MW-93	Jun-20		0.00919	**0.0340**			0.00291		<0.0489	<0.00249	**0.213**			0.00299		
	MW-94	Oct-15															
	MW-94	Apr-16		**0.0163**	**0.356**			<0.00270		<0.0750	<0.00120	0.00601 J			**0.0334**		
	MW-94	Oct-16															
	MW-94	Apr-17		**0.0106**	**0.771**			0.00124 J		<0.0150	0.000343 J	0.00235 J			0.00973		
	MW-95	Apr-17		0.00162 J	**0.0592**			<0.000540		<0.0150	0.000323 J	**0.0285**			0.00164 J		
	MW-95	Apr-18		0.00135 J	**0.0690**			<0.000540		<0.0150	<0.000240	**0.0559**			0.000786 J		
	MW-95	Apr-19		0.00113 J	**0.0570**			0.000653 J		<0.0150	<0.000240	**0.0902**			0.000845 J		
	MW-95	Jun-20		0.00135 J	**0.0434**			<0.00149		<0.0489	<0.00249	**0.151**			0.000657 J		
	MW-96	Apr-18		0.00269	**0.121**			<0.000540		<0.0150	<0.000240	0.000674 J			<0.000380		
	MW-96	Oct-18															
	MW-96	Apr-19		0.00247	**0.165**			0.000920 J		<0.0150	<0.000240	0.00104 J			0.000440 J		
	MW-96	Oct-19															
	MW-96	Jun-20		0.00225	**0.166**			<0.00149		<0.0489	<0.00249	<0.00132			0.000663 J		
	MW-96	Oct-20															
	MW-98	Apr-18		0.000942 J	**0.0273**			0.00591		**0.0464 JB**	0.00903	**0.0255**			0.000756 J		
	MW-98	Oct-18															
	MW-98	Apr-19		0.00122 J	**0.0155**			<0.000540		<0.0150	0.00567	**0.0200**			0.000575 J		
	MW-98	Oct-19															
	MW-98	Jun-20		0.000790 J	**0.0165 J**			<0.00149		<0.0489	0.00616	**0.0201**			<0.000657		
	MW-98	Oct-20															
	MW-137	Oct-17															
	MW-137	Apr-18		**0.0491**	**0.0727**	**0.973**	<0.000160	<0.000540	<0.000260	<0.0150	0.00404	**0.147**	<0.000490	**0.0110**	0.00248	<0.000330	0.00694
	MW-137	Oct-18															
	MW-137	Apr-19		**0.0453**	**0.0818**	**0.971**	<0.000160	<0.000540	<0.000260	<0.0150	0.00243	**0.145**	<0.0000490	**0.0125**	0.000905 J	<0.000330	0.00708
	MW-138	Oct-17															
	MW-138	Apr-18		0.00517	**0.133**	**0.955**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	**0.111**	<0.0000490	0.00593	<0.000380	<0.000330	0.00128 J
	MW-138	Oct-18															
	MW-138	Apr-19		0.00428	**0.121**	**0.878**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	**0.124**	<0.0000490	0.00524	0.000668 J	<0.000330	0.000806 J
	RW-1R	Apr-16		0.00435 J	**0.0367**			<0.00270		**11.3**	<0.00120	**0.301**			<0.00190		
	RW-1	Apr-17		**0.0234**	**0.0229**			0.00338		**0.184**	<0.000240	**0.218**			0.00286		
	RW-1	Apr-18		0.00532	**0.0308**			0.000552 J		**0.0584 J**	0.000322 J	**0.0124**			0.00122 J		
	RW-1	Apr-19		0.00919	**0.0308**			0.00100 J		<0.0150	0.000281 J	0.00768			0.00148 J		
	RW-2	Apr-15		**0.0194**	**0.0174**			0.00494		**0.0471 J**	0.000546 J	**0.285**			0.00133 J		
	RW-2R	Apr-16		0.00883 J	**0.0206 J**			0.00400 JB		**0.770**	<0.00120	**0.0466**			0.00516 J		
	RW-2	Apr-17		0.00230	**0.0530**			0.00131 J		**0.0200 J**	0.000647 J	**0.0157**			**0.0364**		
	RW-2	Apr-18		0.00314	**0.131**			0.000882 J		<0.0150	0.000739 JB	**0.0203**			0.000515 J		
	RW-7	Apr-17		0.00273	**0.0191**			<0.000540		**0.0228 J**	<0.000240	**1.12**			0.00142 J		
	RW-7	Apr-18		0.00798	**0.138**			0.00243 B		**0.0450 J**	<0.000240	**0.0650**			0.000791 J		
	RW-7	Apr-19		**0.0145**	**0.120**			0.00172 J		**0.0780 J**	<0.000240	**0.161**			<0.000380		
	RW-7	Jun-20		0.00695	**0.174**			<0.00149		<0.0489	<0.00249	**0.113**			<0.000657		
	RW-8	Apr-15		0.00521	**0.0797**			<0.000540		**0.163**	0.000591 J	**0.0744**			<0.000380		
	RW-8	Apr-17		**0.0346**	**0.0661**			<0.000540		**2.13**	<0.000240	**1.14**			<0.000380		
	RW-9	Apr-17		0.00324	**0.0415**			<0.000540		<0.0150	0.000371 J	**0.745**			<0.000380		
	RW-9	Apr-18		0.00305	**0.0452**			0.000544 JB		<0.0150	0.000890 J	**0.511**			0.000670 J		
	RW-9	Apr-19		0.00295	**0.0400**			<0.000540		<0.0150	0.000632 J	**0.474**			0.000477 J		
	RW-9	Jun-20		0.00428	**0.0370**			<0.00149		<0.0489	<0.00249	**0.354**			<0.000657		
	RW-10	Apr-17		0.00180 J	**0.0184**			<0.000540		<0.0150	<0.000240	**0.180**			0.000631 JB		
	RW-10	Apr-18		0.00191 J	**0.0220**			<0.000540		<0.0150	0.000521 J	**0.181**			<0.000380		
	RW-10	Apr-19		0.00140 J	**0.0176**			<0.000540		<0.0150	<0.000240	**0.175**			<0.000380		
	RW-10	Jun-20		0.00387	**0.0192 J**			<0.00149		<0.0489	<0.00249	**0.175**			<0.000657		
	RW-16B	Apr-17		**0.0133**	**0.0126**			0.000989 J		<0.0150	<0.000240	**0.264**			0.00535		
	RW-16B	Apr-18		0.00858	**0.0130**			0.000761 JB		<0.0150	<0.000240	**0.194**			0.00691		
	RW-16B	Apr-19		**0.0126**	**0.0153**			<0.000540		<0.0150	0.000673 JB	**0.458**			0.00910		
	RW-16B	Jun-20		**0.0242**	**0.0195 J**			<0.00149		**0.100**	<0.00249	**0.0546**			**0.0777**		
	RW-17A	Apr-17		**0.0109**	**0.0213**			<0.000540		<0.0150	0.00763	**0.711**			0.00945		
	RW-17A	Apr-18		**0.0102**	**0.0217**			0.000940 J		<0.0150	0.00688	**0.748**			0.00305		
	RW-17A	Apr-19		**0.0150**	**0.0225**			0.00152 J		<0.0150	0.00301	**0.810**			<0.000380		
	RW-17A	Jun-20		**0.0156**	**0.0199 J**			0.00187 J		<0.0489	0.00270 J	**0.118**			**0.0157**		
North RO Field	MW-117	Apr-18		0.00176 J	0.00815			0.000583 J		**0.0309 J**	0.000252 J	0.00132 J					
	MW-117	Oct-18															
	MW-117	Apr-19		0.00218	0.00957			<0.000540		<0.0150	0.000314 JB	<0.000250			0.00853		
	MW-117	Oct-19															
	MW-117	Jun-20		0.00262	0.00934 J			<0.00149		<0.0489	<0.00249	0.00162 J			0.00942		
	MW-117	Oct-20															
	MW-118	Apr-18		0.00818	0.00656			0.00117 J		<0.0150	<0.000240	0.000531 J			0.00696		
	MW-118	Oct-18															
	MW-118	Apr-19		0.00969	0.00867			<0.000540		<0.0150	<0.000240	<0.000250			0.00809		
	MW-118	Oct-19															
	MW-118	Jun-20		0.00796	**0.0116 J**			<0.00149		<0.0489	<0.00249	<0.00132			**0.0125**		
	MW-118	Oct-20															
	MW-119	Apr-18		0.00300	0.00773			<0.000540		<0.0150	0.000254 J	0.00159 J			0.00299		
	MW-119	Oct-18															
	MW-119	Apr-19		0.00352	0.00865			<0.000540		**0.0428 J**	<0.000240	0.000824 J			0.00919		
	MW-119	Oct-19															
	MW-119	Jun-20		0.00370	0.00958 J			<0.00149		<0.0489	<0.00249	0.00646			0.00484		
	MW-119	Oct-20															
South Refinery	KWB-2R	Apr-17		0.00326	**0.0234**			<0.000540		**0.517**	0.000733 J	**0.665**			<0.000380		
	KWB-2R	Oct-17															
	KWB-2R	Apr-19		0.00135 J	**0.0293**			<0.000540		<0.0150	0.000322 J	**0.593**			0.000416 J		
	KWB-2R	Oct-19															
	KWB-5	Oct-17															
	KWB-5	Apr-18		**0.0152**	**3.15**			0.00359		**1.89**	<0.000240	**1.14**			<0.000380		
	KWB-5	Oct-18															
	KWB-5	Apr-19		**0.0197**	**3.24**			<0.000540		**0.0820 J**	0.00106 J	**1.57**			<0.000380		
	KWB-6	Apr-17		0.00449	**0.140**			<0.000540		<0.0150	<0.000240	**1.98**			0.000450 J		
	KWB-6	Oct-17															
	KWB-6	Apr-18		0.00437	**0.0911**			<0.000540		**0.103**	0.000429 J	**1.51**			<0.000380		
	KWB-6	Oct-18															

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	MW-28	Apr-18		0.00632	**0.0625**	**1.27**	<0.000160	<0.000540	<0.000260	**0.0591 JB**	0.00618	**0.0349**	<0.0000490	0.00445	<0.000380	0.000368 J	0.00160 J
	MW-28	Oct-18															
	MW-28	Apr-19		0.00520	**0.0488**	**1.43**	<0.000160	<0.000540	<0.000260	<0.0150	0.00181 J	**0.0672**	<0.0000490	0.00359	0.000720 J	<0.000330	0.00104 J
	MW-28	Oct-19															
	MW-28	Jun-20		0.00684	**0.0421**	**1.35**	<0.000478	<0.00149	<0.000477	**0.0711 J**	<0.00249	**0.743**	<0.000100	0.00559	<0.000657	<0.00754	0.00388 J
	MW-28	Oct-20															
	MW-48	Apr-18		0.00747	**1.97**			<0.000540		<0.0150	0.000847 J	**0.154**			0.000669 J		
	MW-48	Oct-18															
	MW-48	Apr-19		0.00380	**1.04**			<0.000540		<0.0150	0.000304 J	**0.407**			0.000451 J		
	MW-48	Oct-19															
	MW-50	Apr-18		0.00326	**0.0128**			<0.000540		**0.165**	<0.000240	**1.01**			0.00415		
	MW-50	Oct-18															
	MW-50	Apr-19		0.00223	**0.0129**			<0.000540		<0.0150	0.000440 J	**1.00**			0.00445		
	MW-50	Oct-19															
	MW-50	Jun-20		0.00399	**0.0125 J**			<0.00149		**0.253**	<0.00249	**0.621**			**0.0354**		
	MW-50	Oct-20															
	MW-52	Apr-18		0.00390	**0.0114**	**0.724**	<0.000160	<0.000540	0.000509 J	<0.0150	0.000369 J	**0.0472**	<0.0000490	0.00721	0.00412	**0.0112**	**0.0280**
	MW-52	Oct-18															
	MW-52	Apr-19		0.00375	**0.0114**	**0.700**	<0.000160	<0.000540	0.000286 J	<0.0150	<0.000240	**0.0479**	<0.0000490	0.00672	0.00468	**0.0105**	**0.0249**
	MW-52	Oct-19															
	MW-52	Jun-20		0.00379	**0.0136 J**	**0.792**	<0.000478	<0.00149	0.000478 J	<0.0489	<0.00249	**0.0738**	<0.000100	**0.0252**	0.00633	**0.0123 J**	**0.0251**
	MW-52	Oct-20															
	MW-64	Apr-18		**0.0391**	**2.32**			<0.000540		<0.0150	0.000331 J	**0.0656**			0.000382 J		
	MW-64	Oct-18															
	MW-64	Apr-19		**0.0270**	**2.33**			<0.000540		<0.0150	<0.000240	**0.0755**			<0.000380		
	MW-64	Oct-19															
	MW-64	Jun-20		**0.0247**	**2.27** O1V			<0.00149		<0.0489	<0.00249	**0.0932**			<0.000657 J5		
	MW-64	Oct-20															
	MW-65	Apr-18		**0.0108**	**2.75**			0.00329		**1.52**	0.000368 J	**0.559**			<0.000380		
	MW-65	Oct-18															
	MW-65	Apr-19		0.00653	**1.71**			<0.000540		**0.0315 J**	<0.000240	**0.456**			<0.000380		
	MW-65	Oct-19															
	MW-66	Apr-18		0.00247	**2.18**	**0.306**	<0.000160	<0.000540	<0.000260	**0.683**	0.000405 JB	**0.277**	<0.0000490	0.00666	<0.000380	<0.000330	0.000478 J
	MW-66	Oct-18															
	MW-66	Apr-19		0.00235	**2.34**	**0.274**	<0.000160	<0.000540	<0.000260	**0.0333 J**	0.000270 J	**0.240**	<0.0000490	0.00568	<0.000380	<0.000330	0.000391 J
	MW-66	Oct-19															
	MW-66	Jun-20		0.00213	**1.92**	**0.263**	<0.000478	<0.00149	<0.000477	**0.615**	<0.00249	**0.303**	<0.000100	0.00624	<0.000657	<0.00754	0.00117 J
	MW-66	Oct-20															
	MW-99	Apr-18		0.00813	**0.323**			<0.000540		<0.0150	0.000684 JB	**0.233**			<0.000380		
	MW-99	Oct-18															
	MW-99	Apr-19		0.00720	**0.375 V**			<0.000540		<0.0150	<0.000240	**0.219 V**			<0.000380		
	MW-99	Oct-19															
	MW-99	Jun-20		0.00295	**0.207**			0.00258		**0.169**	<0.00249	**0.227**			0.000815 J		
	MW-101	Apr-18		**0.0700**	**0.0506**			<0.000540		**1.89**	<0.000240	**1.18**			<0.000380		
	MW-101	Oct-18															
	MW-101	Apr-19		**0.0531**	**0.0391**			<0.000540		<0.0150	<0.000240	**1.17**			<0.000380		
	MW-101	Oct-19															
	MW-101	Jun-20		**0.0487**	**0.0614**			<0.00149		**0.623**	<0.00249	**1.18**			<0.000657		
	MW-101	Oct-20															
	MW-102	Apr-18		**0.0139**	**5.87**			0.00158 J		**0.146 B**	0.00227	**0.0315**			0.000441 J		
	MW-102	Oct-18															
	MW-102	Apr-19		**0.0147**	**8.31**			<0.000540		**0.139**	0.00368	**0.0398**			0.000516 J		
	MW-102	Oct-19															
	MW-102	Jun-20		**0.0122**	**8.83**			<0.00149		**0.0939 J**	0.00325 J	**0.0371**			<0.000657		
	MW-102	Oct-20															
	MW-103	Apr-17		0.00797	**6.62**			<0.000540		<0.0150	<0.0240	0.00621			<0.000380		
	MW-103	Apr-18		0.00564	**3.80**			0.000882 J		<0.0150	0.00107 J	0.00187 J			<0.000380		
	MW-103	Apr-19		0.00608	**1.25**			<0.000540		<0.0150	0.000544 JB	0.00173 J			<0.000380		
	MW-103	Jun-20		0.00189 J	**2.37**			<0.00149		<0.0489	<0.00249	0.00496 J			<0.000657		
	MW-104	Apr-18		**0.0209**	**0.0358**			0.00115 J		**0.0187 JB**	<0.000240	0.00414 J			<0.000380		
	MW-104	Apr-18	FD	**0.0205**	**0.0322**			0.000578 J		<0.0150	<0.000240	0.00432 J			<0.000380		
	MW-104	Oct-18															
	MW-104	Oct-18	FD														
	MW-104	Apr-19		**0.0111**	**0.0228**			<0.00270		<0.0750	<0.00120	**0.0192 J**			<0.000380		
	MW-104	Apr-19	FD	**0.0122**	**0.0201**			<0.000540		<0.0150	0.000422 JB	**0.0215**			0.000588 J		
	MW-104	Oct-19															
	MW-104	Oct-19	FD														
	MW-104	Jun-20		0.00145 J	**0.0231**			<0.00149		<0.0489	<0.00249	**0.0171**			<0.000657		
	MW-104	Jun-20	FD	0.00162 J	**0.0224**			<0.00149		<0.0489	<0.00249	**0.0173**			0.000700 J		
	MW-104	Oct-20															
	MW-104	Oct-20	FD														
	MW-105	Apr-18		**0.0160**	**0.944**			0.00192 J		**0.0327 JB**	0.000440 JB	**0.165**			<0.000380		
	MW-105	Oct-18															
	MW-105	Apr-19		0.00939	**0.185**			0.00120 J		<0.0150	0.000432 J	**0.135**			0.00872		
	MW-105	Oct-19															
	MW-105	Jun-20		0.00881	**0.923**			0.00163 J		<0.0489	<0.00249	**0.0799**			<0.000657		
	MW-105	Oct-20															
	MW-106	Apr-18		**0.0143**	**0.0321**			0.00245		**0.0232 JB**	0.00198 J	0.00685			0.00459		
	MW-106	Oct-18															
	MW-106	Apr-19		**0.0102**	**0.0635**			0.00173 J		**0.139**	0.000522 J	**0.0122**			0.000915 J		
	MW-106	Oct-19															
	MW-106	Jun-20		**0.0209**	**0.0344**			0.00176 J		<0.0489	<0.00249	0.00784			<0.000657		
	MW-106	Oct-20															
	MW-107	Oct-16															
	MW-107	Apr-17		0.00128 J	**2.01**			<0.000540		**0.0388 J**	<0.000240	**0.107**			<0.000380		
	MW-107	Apr-18		0.00157 J	**2.34**			<0.000540		**4.47**	0.000418 JB	**0.152**			0.000426 J		
	MW-107	Apr-19		0.00139 J	**2.23**			<0.000540		**0.0278 J**	0.000378 J	**0.163**			<0.000380		
	MW-109	Apr-18		0.00185 J	**0.0320**			<0.000540		<0.0150	0.000253 J	**0.0497**			<0.000380		
	MW-109	Oct-18															
	MW-109	Apr-19		0.00408	**0.0373**			0.000553 J		<0.0150	0.000262 J	**0.0603**			0.000402 J		
	MW-109	Oct-19															
	MW-109	Jun-20		0.00310	**0.0437**			<0.00149		<0.0489	<0.00249	**0.0675**			<0.000657		
	MW-109	Oct-20															
	MW-110	Apr-18		0.00229 J	**0.0717**			<0.00270		<0.0750	<0.00120	**0.468**			<0.00190		
	MW-110	Oct-18															
	MW-110	Apr-19		**0.0175**	**0.0676**			<0.000540		<0.0150	<0.000240	**1.66**			0.000406 J		
	MW-110	Oct-19															
	MW-110	Jun-20		**0.0355**	**0.0516**			<0.00149		**0.876**	<0.00249	**2.03**			<0.000657		
	MW-110	Oct-20															
	MW-139	Oct-19															
	MW-139	Jun-20		0.00601	**0.0349**			<0.00149		**0.574**	<0.00249	**1.90**			<0.000657		
	MW-139	Oct-20															
	RA-313	Apr-17															
	RA-313	Apr-18															
	RA-313	Apr-19															
	RA-313	Jun-20															

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	Well ID	Date	Dup															
South Refinery	RW-4	Apr-17		0.00381	**0.0709**			0.000690 J		<0.0150	<0.000240	**0.0245 O1**			<0.000380		
	RW-4	Apr-18		0.00301	**0.0675**			<0.000540		<0.0150	0.000410 JB	**0.0535**			<0.000380		
	RW-4	Apr-19		0.00355	**0.135**			<0.000540		<0.0150	0.000712 J	**0.0375**			<0.000380		
	RW-4	Jun-20		0.00328	**0.0680**			<0.00149		<0.0489	<0.00249	**0.124**			<0.000657		
	RW-5R	Apr-15		0.00136 J	**0.0275**			<0.000540		**0.0247 J**	<0.000240	**0.0167**			<0.000380		
	RW-5R	Apr-16		0.00182 J	**0.0307**			<0.00270		**0.146 J**	<0.00120	**0.0193 J**			0.00542 J		
	RW-6	Apr-15		**0.0354**	**0.857**			0.000677 J		**17.5**	0.00129 J	**0.284**			<0.000380		
	RW-6R	Apr-16		**0.0615**	**0.384**			<0.00270		**3.37**	<0.00120	**0.537**			0.00213 J		
	RW-6	Apr-18		**0.0141**	**1.90**			<0.000540		**1.32**	0.000568 JB	**0.279**			0.000513 J		
	RW-6	Apr-19		0.00656	**6.17 V**			<0.000540		**0.0878 J**	0.000368 JP1	**0.161**			0.000690 J		
	RW-15C	Apr-17		**0.0306**	**0.896**			<0.000540		**0.137**	0.000501 J	**0.376**			<0.000380		
	RW-15C	Apr-18		**0.0264**	**1.27 V**			<0.000540		**0.197**	0.000585 J	**0.399**			0.000675 J		
	RW-15C	Apr-19		**0.0128**	**1.61**			0.00263		**0.216**	0.000416 J	**0.463**			0.000987 J		
	MW-114	Apr-18		0.00169 J	**0.0106**			<0.000540		<0.0150	0.000269 J	**0.672**			0.00926		
	MW-114	Oct-18															
	MW-114	Apr-19		0.00231	**0.0127**			<0.000540		**0.0161 J**	0.000567 J	**0.912**			0.00717		
	MW-114	Oct-19															
	MW-114	Jun-20		0.00334	**0.0138 J**			<0.00149		<0.0489	<0.00249	**0.997**			0.00352		
	MW-114	Oct-20															
South RO Field	MW-115	Apr-18		0.00249	0.00618			<0.000540		<0.0150	0.000247 J	**0.0439**			<0.000380		
	MW-115	Oct-18															
	MW-115	Apr-19		0.00376	**0.0103**			<0.000540		<0.0150	0.000387 J	**0.102**			0.00553		
	MW-115	Oct-19															
	MW-115	Jun-20		0.00415	0.00879 J			<0.00149		<0.0489	<0.00249	**0.109**			0.00556		
	MW-115	Oct-20															
	MW-116	Apr-18		0.00431	0.00837			<0.000540		<0.0150	0.000315 J	**0.0218**			0.00602		
	MW-116	Oct-18															
	MW-116	Apr-19		0.00324	0.00833			<0.000540		<0.0150	<0.000240	**0.0172**			0.00499		
	MW-116	Oct-19															
	MW-116	Jun-20		0.00285	0.00796 J			<0.00149		<0.0489	<0.00249	0.00841			0.00674		
	MW-116	Oct-20															
	MW-49	Apr-18		0.00484	**0.0515**	**0.764**	<0.000160	0.00163 JB	<0.000260	**0.0200 JB**	0.000500 J	**0.196**	<0.0000490	0.00712	<0.000380	<0.000330	0.000384 J
	MW-49	Oct-18															
	MW-49	Apr-19		0.00479	**0.0525**	**0.662**	<0.000160	0.000887 JB	<0.000260	**0.0357 J**	0.000563 J	**0.196**	<0.0000490	0.00648	<0.000380	<0.000330	0.000260 J
	MW-49	Oct-19															
	MW-49	Jun-20		0.00575	**0.0545**	**0.664**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	**0.185**	<0.000100	0.00770	<0.000657	<0.00754	<0.000986
	MW-49	Oct-20															
	TEL-1	Apr-18		**0.0132**	**0.0145**			0.00212		**0.0315 J**	<0.000240	**0.0540**			<0.000380		
	TEL-1	Oct-18															
	TEL-1	Apr-19		**0.0128**	**0.0196**			0.00285		**0.0400 JB**	<0.000240	**0.0405**			<0.000380		
	TEL-1	Oct-19															
	TEL-1	Jun-20		**0.0134**	**0.0162 J**			0.00317		**0.113**	<0.00249	**0.0390**			<0.000657		
	TEL-2	Apr-18		**0.0166**	**0.0431**			0.000859 J		<0.0150	0.00255 B	**0.0149**			0.000571 J		
	TEL-2	Oct-18															
	TEL-2	Apr-19		0.00309	**0.0191**			0.00660		**0.0268 JB**	<0.000240	**0.0153**			<0.000380		
	TEL-2	Oct-19															
	TEL-2	Jun-20		0.00940	**0.0307**			<0.00149		<0.0489	<0.00249	**0.0377**			<0.000657		
	TEL-3	Apr-18		0.00964	**0.0219**			**0.0263**		**0.0526 J**	0.000337 J	0.00609			0.000457 J		
	TEL-3	Apr-19		0.00129 J	**0.0138**			0.00225		**0.0489 JB**	<0.000240	**1.09**			<0.000380		
	TEL-3	Oct-19															
	TEL-3	Oct-20															
	TEL-4	Apr-18		0.00619	**0.0207**			**0.0734**		**0.233**	0.000648 J	**1.46**			0.000680 J		
	TEL-4	Apr-18	FD	0.00629	**0.0205**			**0.0748**		**0.229**	0.000498 J	**1.45**			0.000471 J		
	TEL-4	Oct-18															
	TEL-4	Oct-18	FD														
	TEL-4	Apr-19		0.00233	**0.0151**			0.00235 B		**0.0270 JB**	0.00199 J	**0.979**			0.00168 J		
	TEL-4	Apr-19	FD	0.00167 J	**0.0125**			0.00267		**0.0194 JB**	<0.00120	**1.08**			0.000390 JB		
	TEL-4	Oct-19															
	TEL-4	Oct-19	FD														
	TEL-4	Jun-20		0.00668	**0.0183 J**			0.00662		**0.151**	<0.00249	**1.35**			<0.000657		
	TEL-4	Jun-20	FD	0.00635	**0.0173 J**			0.00568		**0.157**	<0.00249	**1.24 V**			<0.000657		
	TEL-4	Oct-20															
	TEL-4	Oct-20	FD														
	MW-8	Apr-17		0.00606	**0.0119**			<0.000540		<0.0150	<0.000240	**0.494**			0.00637		
	MW-8	Apr-18		0.00655	**0.0130**			0.00334 B		**0.0225 JB**	<0.000240	**0.635**			**0.0166**		
	MW-8	Apr-19		0.00632	**0.0131**			0.00102 J		<0.0150	0.000287 JB	**0.654**			**0.0198**		
	MW-8	Jun-20		0.00646	**0.0155 J**			<0.00149		<0.0489	<0.00249	**0.730**			**0.0566**		
	MW-16	Apr-17		0.00513	**0.0164**			<0.000540		**0.0333 J**	<0.000240	0.00335 J			**0.0116**		
	MW-16	Apr-18		0.00517	**0.0134**			<0.000540		<0.0150	<0.000240	**0.0579**			0.00361		
	MW-16	Apr-19		0.00510	**0.0128**			0.000722 J		<0.0150	<0.000240	0.00101 J			0.00748		
	MW-16	Jun-20		0.00518	**0.0137 J**			<0.00149		<0.0489	<0.00249	**0.0223**			**0.0120**		
	MW-20	Apr-17		0.00614	**0.0124**			<0.000540		<0.0150	<0.000240	0.00845			**0.0192**		
	MW-20	Apr-18		0.00603	**0.0107**			<0.000540		<0.0150	<0.000240	**0.0107**			**0.0122**		
	MW-20	Apr-19		0.00551	**0.0107**			<0.000540		<0.0150	0.000540 JB	0.00500			0.00934		
	MW-20	Jun-20		0.00553	0.00949 J			<0.00149		<0.0489	<0.00249	<0.00132			0.00424		
	MW-21	Apr-18		0.00528	0.00984			0.000979 JB		<0.0150	<0.000240	**0.269**			**0.0276**		
	MW-21	Oct-18															
	MW-21	Apr-19		0.00518	**0.0101**			0.000738 J		<0.0150	<0.000240	**0.135**			**0.0381**		
	MW-21	Oct-19															
	MW-21	Jun-20		0.00539	0.00862 J			<0.00149		<0.0489	<0.00249	**0.245**			**0.0497**		
	MW-21	Oct-20															
Three Mile Ditch	MW-25	Apr-17		0.00306	**0.0129**			<0.000540		<0.0150	<0.000240	**0.290**			0.00234		
	MW-25	Apr-18		0.00236	**0.0117**			<0.000540		<0.0150	0.000260 J	**0.228**			0.00292		
	MW-25	Apr-19		0.00182 J	**0.0123**			<0.000540		<0.0150	0.000631 J	**0.188**			0.00255		
	MW-25	Jun-20		0.00200 J	**0.0111 J**			<0.00149		<0.0489	<0.00249	**0.183**			0.00208		
	MW-26	Apr-17		0.00330	0.00987			<0.000540		**0.0359 J**	<0.000240	**0.635**			**0.0251**		
	MW-26	Apr-18		0.00335	0.00897			<0.000540		<0.0150	<0.000240	**0.481**			**0.0220**		
	MW-26	Apr-19		0.00363	0.00856			0.000948 J		<0.0150	<0.000240	**0.423**			**0.0233**		
	MW-26	Jun-20		0.00316	0.00792 J			<0.00149		<0.0489	<0.00249	**0.255**			**0.0171**		
	MW-27	Apr-17		0.00212	**0.0182**			<0.000540		<0.0150	0.000708 J	**0.0173**			0.00708		
	MW-27	Apr-18		0.00228	**0.0147**			<0.000540		**0.0213 JB**	0.000824 J	**0.0491**			**0.0119**		
	MW-27	Apr-19		0.00243	**0.0160**			<0.000540		<0.0150	<0.000240	**0.0175**			**0.0146**		
	MW-27	Jun-20		0.00219	**0.0157 J**			<0.00149		<0.0489	<0.00249	0.00198 J			**0.0154**		
	MW-46R	Apr-18		0.00260	**0.0106**			0.00175 J		**0.0510 JB**	0.000304 J	**0.107**			0.000587 J		
	MW-46R	Oct-18															
	MW-46R	Apr-19		0.00230	**0.0137**			<0.000540		<0.0150	<0.000240	**0.0711**			0.00230		
	MW-46R	Oct-19															
	MW-46R	Jun-20		0.00266	**0.0102 J**			<0.00149		<0.0489	<0.00249	**0.0447**			<0.000657		
	MW-46R	Oct-20															
	MW-68	Apr-17		0.00250	**0.0125**			<0.000540		<0.0150	<0.000240	**0.0929**			0.00331		
	MW-68	Apr-18		0.00252	**0.0113**			<0.000540		**0.0205 JB**	0.000713 J	**0.0527**			0.00800		
	MW-68	Apr-19		0.00247	**0.0116**			0.00161 J		<0.0150	<0.000240	0.00110 J			**0.0154**		
	MW-68	Jun-20		0.00243	**0.0159 J**			<0.00149		<0.0489	<0.00249	<0.00132			**0.0319**		

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Appendix C, Table C.3 - Summary of Groundwater Analytical Data - Dissolved Metals

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Dissolved Metals													
				Analyte:	Arsenic	Barium	Boron	Cadmium	Chromium	Cobalt	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Uranium	Vanadium
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0100	2.00	0.750	0.00500	0.0500	0.0500	1.00	0.0150	0.200	0.00200	0.200	0.0500	0.0300	0.0631
				CGWSL Source:	WQCC HH	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	WQCC Irr	WQCC Dom	WQCC HH	WQCC Dom	WQCC HH	WQCC Irr	WQCC HH	WQCC HH	NMED TW
Area	**Well ID**	**Date**	**Dup**															
Three Mile Ditch	MW-71	Apr-17			0.00408	0.00978	**0.606**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.000265 J	<0.0000490	0.000892 J	**0.0331**	**0.0617**	**0.0260**
	MW-71	Apr-18			0.00370	0.00985	**0.662**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.00159 J	<0.0000490	0.00168 J	**0.0328**	**0.0634**	**0.0255**
	MW-71	Apr-19			0.00354	0.00909	**0.216**	<0.000160	0.000984 J	<0.000260	<0.0150	0.000281 JB	0.00267 J	<0.0000490 J6	0.00401	**0.0315**	**0.0626**	**0.0235**
	MW-71	Jun-20			0.00372	0.00839 J	**0.620**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	<0.00132	<0.000100	0.00119 J	**0.0300**	**0.0673**	**0.0247**
	MW-89	Apr-17			0.00684	**0.0160**			<0.000540		<0.0150	<0.000240	**0.0452**			**0.0559**		
	MW-89	Apr-18			0.00953	**0.0138**			0.00168 JB		**0.0243 JB**	0.000551 J	**0.605**			0.00261		
	MW-89	Apr-19			0.00690	**0.0122**			<0.000540		<0.0150	<0.000240	**0.432**			**0.0314**		
	MW-89	Jun-20			0.00880	**0.0117 J**			0.00153 J		<0.0489	<0.00249	**0.567**			0.00409		
	NP-1	Apr-18																
	NP-1	Oct-18																
	NP-1	Apr-19																
	NP-1	Oct-19																
	NP-1	Jun-20																
	NP-1	Oct-20																
	NP-6	Apr-13																
	NP-6	Apr-15																
	NP-6	Apr-17																
	NP-6	Apr-19																
Upgradient	UG-1	Apr-17			0.00113 J	**0.0118**	**0.502**	<0.000160	0.000688 J	<0.000260	<0.0150	<0.000240	0.00476 J	<0.0000490	0.00225	0.00938	**0.0273**	**0.0120**
	UG-1	Apr-18			0.00131 J	**0.0119**	**0.756**	<0.000160	0.000981 J	0.00125 J	<0.0150	<0.000240	0.000405 J	<0.0000490	0.00218	0.00579	**0.0273**	**0.0132**
	UG-1	Apr-19			0.00123 J	**0.0149**	**0.794**	<0.000160	<0.000540	0.000404 J	<0.0150	0.000301 JB	0.00124 J	<0.0000490	0.00167 J	**0.0125**	**0.0324**	**0.0133**
	UG-1	Jun-20			0.00113 J	**0.0141 J**	**0.718**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00154 J	<0.000100	0.00119 J	**0.0153**	**0.0390**	**0.0139**
	UG-2	Apr-17			0.00206	**0.0137**	**0.265**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.00390 J	<0.0000490	0.00342	0.00522	**0.0155**	**0.0159**
	UG-2	Apr-18			0.00194 J	**0.0135**	**0.421**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	<0.000250	<0.0000490	0.00146 J	0.00622	**0.0131**	**0.0158**
	UG-2	Apr-19			0.00200	**0.0156**	**0.280**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.000681 J	<0.0000490	0.00302	0.00626	**0.0147**	**0.0152**
	UG-2	Jun-20			0.00241	**0.0140 J**	**0.296**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00441 J	<0.000100	0.00278	0.00842	**0.0166 J**	**0.0188**
	UG-3R	Apr-17			0.00165 J	**0.0167**	**0.219**	<0.000160	0.000573 J	0.000421 J	<0.0150	<0.000240	0.00217 J	<0.0000490	0.00316	0.00371	**0.0132**	0.00992
	UG-3R	Apr-18			0.00161 J	**0.0167**	**0.597**	<0.000160	0.000691 J	<0.000260	**0.0186 JB**	<0.000240	0.000475 J	<0.0000490	0.000962 J	0.00298	**0.0126**	0.00919
	UG-3R	Apr-19			0.00143 J	**0.0165**	**0.332**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.000430 J	<0.0000490	0.000953 J	0.00264	**0.0149**	0.00850
	UG-3R	Jun-20			0.00132 J	**0.0200**	**0.184 J**	<0.000478	0.00240	<0.000477	<0.0489	<0.00249	0.00488 J	<0.000100	0.00177 J	0.00421	**0.0166 J**	0.00878
	UG-4	Apr-17			0.00103 J	**0.0149**	**0.958** O1V	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.00620	<0.0000490	0.00255	**0.0142**	**0.0373**	0.00736
	UG-4	Apr-18			0.00109 J	**0.0163**	**1.17**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	<0.000250	<0.0000490	<0.000350	**0.0173**	**0.0335**	0.00710
	UG-4	Apr-19			0.000962 J	**0.0165**	**1.14**	<0.000160	<0.000540	<0.000260	<0.0150	<0.000240	0.000298 J	<0.0000490	0.00109 J	**0.0169**	**0.0361**	0.00723
	UG-4	Jun-20			0.00112 J	**0.0156 J**	**1.07**	<0.000478	<0.00149	<0.000477	<0.0489	<0.00249	0.00149 J	<0.000100	0.00108 J	**0.0104**	**0.0359**	0.00739
	UG-4	Apr-16			0.00144 J													
	UG-4	Apr-17			0.00103 J													
	UG-4	Apr-18			0.00109 J													
	UG-4	Apr-19			0.000962 J													

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1, Tap Water Screening Level
WQCC Dom	NMED Groundwater standard for domestic exposure taken from 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC
WQCC Irr	NMED Groundwater standard for irrigation exposure, 20.6.2.3103.C NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds											
Analyte:				1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
CGWSL Source:				---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	**Well ID**	**Date**	**Dup**											
Cross-Gradient	KWB-13	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-13	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-13	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00191	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-13	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-136	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-136	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-136	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-136	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-136	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-136	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NP-5	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	NP-5	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	0.000804 J		<0.000360	<0.000390	<0.00390
	NP-5	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-5	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	RA-3156	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-3156	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-3156	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-3156	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
Evaporation Ponds	MW-1R	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-1R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-1R	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-1R	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	MW-2A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-2A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-2A	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-2A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-2A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	MW-2A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-3	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-3	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-3	Jun-20		<0.00368	<0.00373	<0.00333	<0.00395	<0.00250	<0.00470	<0.00805	<0.00315	<0.00205	<0.00260	<0.0298
	MW-3	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-3	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-3	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-4A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000492 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-4A	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-4A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-4A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-4A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-4A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000437 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-4B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-4B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	MW-4B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-4B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5A	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-5A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-5A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-5B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-5B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	0.000976 J		<0.000360	<0.000390	<0.00390
	MW-5B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000499 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000414 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5C	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-5C	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	MW-5C	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-5C	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-6A	Apr-17		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381	<0.00361	<0.00387	<0.0393
	MW-6A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-6A	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-6A	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	MW-6B	Mar-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-6B	Mar-13	FD		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-6B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	MW-6B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-6B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-7A	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Apr-19	FD	<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-7A	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-7A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-7A	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-7B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	MW-7B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	MW-7B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-7B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-10	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-10	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-10	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-10	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-10	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	MW-10	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-11A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-11A	Oct-18												
	MW-11A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-11A	Oct-19												
	MW-11A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	MW-11A	Oct-20												

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
Evaporation Ponds	MW-11B	Mar-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500			<0.00500	<0.00500	<0.0100
	MW-11B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370			<0.000360	<0.000390	<0.00390
	MW-11B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-11B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-15	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-15	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-15	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-15	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-18A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-18A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-18A	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-18A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-18A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-18A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-18B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500			<0.00500	<0.00500	<0.0100
	MW-18B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370			<0.000360	<0.000390	<0.00390
	MW-18B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-18B	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190		<0.00180	<0.00194	<0.0196
	MW-22A	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22A	Jun-20		<0.000147	<0.000149	0.000145 J	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-22A	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000411 J	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-22A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-22A	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-22B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500			<0.00500	<0.00500	<0.0100
	MW-22B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370			<0.000360	<0.000390	<0.00390
	MW-22B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-22B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-70	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-70	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-70	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-70	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-70	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-70	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-72	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-72	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-72	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-72	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-73	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-73	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000735 J	<0.000381		<0.000361	<0.000387	<0.00393
	MW-73	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-73	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000589 J	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-74	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000852 J	<0.000381		<0.000361	<0.000387	<0.00393
	MW-74	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000732 J	<0.000381		<0.000361	<0.000387	<0.00393
	MW-74	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000588 J	<0.000381		<0.000361	<0.000387	<0.00393
	MW-74	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00119	<0.000381		<0.000361	<0.000387	<0.00393
	MW-74	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000772 J	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-74	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00157	<0.000126		<0.0000819	0.000124 J	<0.00119
	MW-75	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-75	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	0.000709 J	<0.00393
	MW-75	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-75	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	0.000795 J	<0.00393
	MW-75	Jun-20		<0.00368	<0.00373	<0.00333	<0.00395	<0.00250	<0.00470	<0.00805	<0.00315		<0.00205	<0.00260	<0.0298
	MW-75	Oct-20		<0.00368	<0.00373	<0.00333	<0.00395	<0.00250	<0.00470	<0.00805	<0.00315		<0.00205	<0.00260	<0.0298
	MW-76	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-76	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190		<0.00180	<0.00194	<0.0196
	MW-76	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	0.000418 J	<0.00393
	MW-76	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000510 J	<0.000381		<0.000361	0.000584 J	<0.00393
	MW-76	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-76	Oct-20		<0.000147	<0.000149 J4	<0.000133	<0.000158	<0.000100	<0.000188	0.000376 J	<0.000126		<0.0000819	0.000320 J	<0.00119
	MW-77	Apr-17		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	0.00384 J	<0.00381		<0.00361	<0.00387	<0.0393
	MW-77	Apr-18		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381		<0.00361	<0.00387	<0.0393
	MW-77	Apr-19		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381		<0.00361	<0.00387	<0.0393
	MW-77	Jun-20		<0.00368	<0.00373	<0.00333	<0.00395	<0.00250	<0.00470	<0.00805	<0.00315		<0.00205	<0.00260	<0.0298
	MW-78	Apr-17		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381		<0.00361	<0.00387	<0.0393
	MW-78	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-78	Apr-19		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381		<0.00361	<0.00387	<0.0393
	MW-78	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-79	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-79	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-79	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-79	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-79	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-79	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-80	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-80	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-80	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-80	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-81	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-81	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-81	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-81	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-82	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-82	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-82	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-82	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-83	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000650 J	<0.000381		<0.000361	<0.000387	<0.00393
	MW-83	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190		<0.00180	<0.00194	<0.0196
	MW-83	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190		<0.00180	<0.00194	<0.0196
	MW-83	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	0.00490 J
	MW-83	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104 J4	<0.00119
	MW-83	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126		<0.0000819	<0.000104	<0.00119
	MW-84	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-84	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381		<0.000361	<0.000387	<0.00393
	MW-84	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190		<0.00180	<0.00194	<0.0196
	MW-84	Oct-19		<0.00193	<0.00159	<0.000650	<0.00192	<0.00130	<0.00199	<0.00187	<0.00191		<0.00181	<0.00194	<0.0197
	MW-84	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630		<0.000409	<0.000520	<0.00595
	MW-84	Oct-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126		<0.000819	<0.00104	<0.0119

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
Evaporation Ponds	MW-86	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	0.0200	<0.00252	<0.00164	0.00605 J	<0.0238
	MW-86	Oct-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	0.0223	<0.00252	<0.00164	0.00604 J	<0.0238
	MW-87	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-87	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-87	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-87	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-87	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-87	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-88	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-88	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-88	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-88	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-88	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-88	Oct-20		<0.000147	<0.000149 J4	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-120	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-120	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-120	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-120	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-120	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	MW-120	Oct-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	MW-121	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-121	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-121	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-121	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-121	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-121	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-122	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-122	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-122	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-122	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-122	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-122	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-123	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-123	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-123	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-123	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-123	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	MW-123	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-124	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-124	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-124	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-124	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-124	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-124	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-1R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-1R	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-1R	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-1R	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-1R	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	OCD-1R	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-2A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-2A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-2A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-2A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-2A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	OCD-2A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-3	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-3	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-3	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-3	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-3	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	OCD-3	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-4	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-4	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-4	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-4	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-4	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	OCD-4	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-5	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-5	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-5	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-5	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-5	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104 J4	<0.00119
	OCD-5	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-6	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-6	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-6	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-6	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-6	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-6	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-7AR	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-7AR	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00103	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-7AR	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000498 J	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-7AR	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000670 J	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-7AR	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000452 J	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-7AR	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000917 J	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-7B	Mar-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	OCD-7B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	OCD-7B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-7B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000562 J	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00124	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000406 J	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398 J3	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000366 J	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-8A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000474 J	<0.000126	<0.0000819	<0.000104	<0.00119
	OCD-8B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	OCD-8B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390
	OCD-8B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	OCD-8B	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
Field East of Refinery	KWB-1A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-1A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-1A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-1A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-1A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	KWB-1A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
Field East of Refinery	KWB-1C	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500			<0.00500	<0.00500	<0.0100
	KWB-1C	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390	
	KWB-1C	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-1C	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-7	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0258	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-7	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00186	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-7	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	**0.0876**	<0.000126	<0.0000819	<0.000104	0.160	
	KWB-7	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00287	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-8	Oct-16		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.170** J	<0.0762	<0.0722	<0.0774	<0.786	
	KWB-8	Apr-17		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.380**	<0.0381	<0.0361	**0.0863** J	<0.393	
	KWB-8	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.114**	<0.000381	<0.000361	0.0225	0.0885 V3	
	KWB-8	Oct-20		<0.0294	<0.0298	<0.0266	<0.0316	<0.0200	<0.0376	**0.833**	<0.0252	<0.0164	**0.191** J	<0.238	
	KWB-10R	Apr-17		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.360**	<0.0190	<0.0180	**0.0907**	<0.196	
	KWB-10R	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.302**	<0.000381	<0.000361	**0.0759**	<0.00393	
	KWB-10R	Apr-18		<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.214** J	<0.0952	<0.0902	<0.0968	<0.982	
	KWB-10R	Oct-18		<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.215** J	<0.0952	<0.0902	<0.0968	<0.982	
	KWB-11A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00290	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-11A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00500	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-11A	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000467 J	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	KWB-11A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.0486	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-11A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00151	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-11B	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-11B	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-11B	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	KWB-11B	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-11B	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.000210 J	<0.000104	<0.00119	
	KWB-11B	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	KWB-12A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12B	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	KWB-12B	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000508 J	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-12B	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12B	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12B	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-12B	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	KWB-P4	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500			<0.00500	<0.00500	<0.0100
	KWB-P4	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390	
	KWB-P4	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	KWB-P4	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-57	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-57	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	MW-57	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-57	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-57	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-57	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-58	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.166**	<0.000381	<0.000361	0.00130	<0.00393	
	MW-58	Apr-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.574**	<0.0190	<0.0180	<0.0194	<0.196	
	MW-58	Oct-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	0.0235 J	<0.0190	<0.0180	<0.0194	<0.196 J3J4	
	MW-58	Oct-19		<0.00385	<0.00319	<0.00130	<0.00383 J4	<0.00259	<0.00398	**0.272**	<0.00381 J4	<0.00361	0.0123	<0.0393	
	MW-111	Apr-18		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	<0.00932	<0.00952	<0.00902	<0.00968	<0.0982	
	MW-111	Oct-18		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	<0.00932	<0.00952	<0.00902	<0.00968	<0.0982	
	MW-111	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00243	<0.000381	0.000871 J	<0.000387	<0.00393	
	MW-111	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00437	<0.000381	<0.000361	0.000852 J	<0.00393	
	MW-111	Jun-20		<0.00368	<0.00373	<0.00333	<0.00395	<0.00250	<0.00470	0.0135 J	<0.00315	<0.00205	0.00436 J	<0.0298	
	MW-112	Nov-14		<0.00960	<0.00800	<0.00320	<0.00960	<0.00650	<0.0100	**0.350**		<0.00900	**0.0900**	<0.0980	
	MW-113	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00240	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00274	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00393	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00388	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.00468	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00523	<0.000381	<0.000361	0.00355	<0.00393	
	MW-113	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.223**	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-113	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.240**	<0.000381	<0.000361	0.00170	<0.00393	
	MW-113	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.0357	<0.000630	<0.000409	<0.000520	<0.00595	
	MW-113	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.0278	<0.000126	0.000410 J	0.000589 J	<0.00119	
	MW-113	Oct-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	**0.102**	<0.000630	<0.000409	0.00118 J	<0.00595	
	MW-113	Oct-20	FD	<0.000147	0.000154 J	<0.000133	<0.000158	<0.000100	<0.000188	**0.114**	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-125	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-125	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-125	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	MW-125	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	MW-125	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-125	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-126A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	0.00162	<0.00393	
	MW-126A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-126A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-126B	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126B	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126B	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-126B	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-126B	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-127	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0327	<0.000381	<0.000361	0.00452	<0.00393	
	MW-127	Apr-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0375	<0.00762	<0.00722	<0.00774	<0.0786	
	MW-127	Oct-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0272	<0.00762	<0.00722	<0.00774	<0.0786	
	MW-127	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0399	<0.00762	<0.00722	<0.00774	<0.0786	

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
Field East of Refinery	MW-128	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00233	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-128	Apr-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786	
	MW-128	Oct-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786	
	MW-128	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766 J4	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786	
	MW-129	Apr-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00382	<0.000381	<0.000361	0.000880 J	<0.00393 J4	
	MW-129	Oct-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00143	<0.000381	<0.000361	0.000479 J	<0.00393	
	MW-129	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00101	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-129	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000452 J	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-130	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-130	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	MW-130	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-130	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-130	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-130	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-131	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0137	<0.000381	<0.000361	0.00348	<0.00393	
	MW-131	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.0932	<0.000381	<0.000361	0.00174	<0.00393	
	MW-131	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.167**	<0.000381	<0.000361	0.0432	<0.00393	
	MW-131	Jun-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.110**	<0.00630	<0.00409	0.0408 J	<0.0595	
	MW-133	Nov-14		<0.0380	<0.0320	<0.0130	<0.0380	<0.0260	<0.0400	**0.280**		<0.0360	0.0530 J	<0.390	
	MW-133	Apr-15		<0.0380	<0.0319	<0.0130	<0.0380	<0.0260	<0.0400	**0.138**		<0.0360	<0.0390	<0.390	
	MW-134	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	MW-134	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000846 J	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000471 J	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000835 J	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-134	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-134	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-134	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-134	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-135	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-135	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-135	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-135	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-135	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-135	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-145	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-145	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-146	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-147	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-148	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	RA-4196	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RA-4196	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4	
	RA-4196	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RA-4196	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RA-4196	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	RA-4196	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.000876 J	<0.000104	<0.00119	
	RA-4798	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RA-4798	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	0.000981 J	<0.000387	<0.00393 J3J4	
	RA-4798	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RA-4798	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	0.00111	<0.000387	<0.00393	
	RA-4798	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.00228	<0.000104	<0.00119	
	RA-4798	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.000877 J	<0.000104	<0.00119	
	RW-12R	Apr-17		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.0338	<0.00190	<0.00180	<0.00194	<0.0196	
	RW-12R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00448	<0.000381	<0.000361	<0.000387	<0.00393	
	RW-12R	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.0102	<0.000381	<0.000361	<0.000387	<0.00393	
	RW-12R	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00494	<0.000126	<0.0000819	<0.000104	<0.00119	
	RW-13R	Apr-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0443	<0.000381	0.000758 J	0.00539	<0.00393	
	RW-13R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0443	<0.000381	0.000655 J	0.000443 J	<0.00393	
	RW-18A	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RW-18A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RW-18A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	RW-18A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	RW-20	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	**0.539**		<0.00360	**0.113**	<0.0390	
	RW-22	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	**0.575**		<0.00360	**0.0853**	<0.0390	
NCL	MW-18	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-18	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-18	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-18	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-45	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-45	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-45	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-45	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	MW-45	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-45	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119 J3	
	MW-53	Apr-16		<0.000385	<0.000319	<0.000130 J4	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-53	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-53	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-53	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-53R	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-54A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-54A	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-54A	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-54A	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	MW-54A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-54A	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-54B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100	
	MW-54B	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360	<0.000390	<0.00390	
	MW-54B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-54B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-55	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-55	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-55	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-55	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393	
	MW-55	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-55	Oct-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119	
	MW-56	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-56	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-56	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393	
	MW-56	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119	
	MW-108	Apr-18		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	0.0462	<0.00952	<0.00902	<0.00968	<0.0982	
	MW-108	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.0637**	<0.00190	<0.00180	0.00773	<0.0196	
	MW-108	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.0435	<0.00190	<0.00180	<0.00194	<0.0196	
	MW-108	Oct-19		<0.00193	<0.00159	<0.000650	<0.00192	<0.00130	<0.00199	0.0279	<0.00191	<0.00181	0.00359 J	<0.0197	
	MW-108	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.0128	<0.000630	<0.000409	0.00213 J	<0.00595	
	MW-108	Oct-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.00527	<0.000630	<0.000409	0.000782 J	<0.00595	

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds											
			Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
			CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup											
NCL	NCL-31	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000514 J	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-31	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-31	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000429 J	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-31	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000439 J	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-31	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000542 J	<0.000126	<0.0000819	0.000195 J	<0.00119
	NCL-31	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000771 J	<0.000126	<0.0000819	0.000160 J	<0.00119
	NCL-32	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-32	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-32	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-32	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	NCL-32	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-32	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-33	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-33	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-33	Apr-19		<0.000385	<0.000319 J4	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-33	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	NCL-33	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-33	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-34A	Apr-18		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	0.0123	<0.00381	<0.00361	<0.00387	<0.0393
	NCL-34A	Oct-18		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	0.00612 J	<0.00381	<0.00361	<0.00387	<0.0393
	NCL-34A	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786
	NCL-34A	Oct-19		<0.00193	<0.00159	<0.000650 J4	<0.00192	<0.00130	<0.00199	0.00369 J	<0.00191	<0.00181	0.00207 J	<0.0197
	NCL-34A	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	0.0113 J	<0.00252	<0.00164	0.00286 J	<0.0238
	NCL-44	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-44	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-44	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-44	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	NCL-44	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-44	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-49	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NCL-49	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	NCL-49	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	NCL-49	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-49	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-49	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NCL-49	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
North Refinery	MW-23	Apr-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-23	Oct-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-23	Apr-19		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-23	Oct-19		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381	<0.00361	<0.00387	<0.0393
	MW-23	Jun-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119
	MW-23	Oct-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119
	MW-29	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-29	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-29	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-29	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-29	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-29	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-39	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.0678**	<0.000381	<0.000361	0.00685	<0.00393
	MW-39	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0156	<0.000381	<0.000361	0.00347	<0.00393
	MW-39	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0144	<0.000381	<0.000361	0.00508	<0.00393
	MW-39	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.00573	<0.000381 J4	<0.000361	0.00237	<0.00393
	MW-39	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00959	<0.000126	<0.0000819	0.00206	<0.00119
	MW-39	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00377	<0.000126	<0.0000819	0.00119	<0.00119
	MW-40	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000538 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-40	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-40	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-40	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-41	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-41	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-41	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-41	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-42	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00352	<0.000381	<0.000361	<0.000387	<0.00393
	MW-42	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00362	<0.000381	<0.000361	<0.000387	<0.00393
	MW-42	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.0148	<0.00190	<0.00180	<0.00194	<0.0196
	MW-42	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.0163	<0.000630	<0.000409	<0.000520	<0.00595
	MW-43	Apr-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.665**	<0.0190	<0.0180	**0.151**	<0.196
	MW-43	Oct-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.585**	<0.0190	<0.0180	**0.131**	<0.196
	MW-43	Apr-19		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.450**	<0.0762	<0.0722	**0.0997 J**	<0.786
	MW-43	Oct-19		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.423**	<0.0762	<0.0722	**0.128 J**	<0.786
	MW-43	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.284**	<0.00252	<0.00164	0.00304 J	<0.0238
	MW-43	Oct-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.302**	<0.00630	<0.00409	<0.00520	<0.0595
	MW-59	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-59	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-59	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-59	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-60	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-60	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-60	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-60	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-60	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000401 J	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-60	Apr-19	FD	<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-60	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-60	Oct-19	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-60	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-60	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000401 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-60	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-60	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-61	Apr-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.198**	<0.0190	<0.0180	<0.0194	<0.196
	MW-61	Oct-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.165**	<0.0190	<0.0180	<0.0194	<0.196
	MW-61	Apr-19		<0.0192	<0.0160	<0.00650	<0.0192 J4	<0.0130	<0.0199	**0.174**	<0.0190	<0.0180	<0.0194	<0.196
	MW-61	Oct-19		<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	**0.237**	<0.0191	<0.0181	<0.0194	<0.197
	MW-61	Jun-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.222**	<0.00630	<0.00409	<0.00520	<0.0595
	MW-61	Oct-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.241**	<0.00630	<0.00409	0.0191 J	<0.0595

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
North Refinery	MW-62	Apr-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.715**	<0.0381	<0.0361	**0.166**	<0.393
	MW-62	Oct-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.602**	<0.0381	<0.0361	**0.144**	<0.393
	MW-62	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.536**	<0.00762	<0.00722	**0.129**	<0.0786
	MW-62	Oct-19		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.537**	<0.00762	<0.00722	**0.123**	<0.0786
	MW-62	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.382**	<0.00252	<0.00164	**0.0782**	<0.0238
	MW-62	Oct-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.347**	<0.00252	<0.00164	**0.0783**	<0.0238
	MW-62R	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	**0.0775**	<0.000126	<0.0000819	0.0117	<0.00119
	MW-67	Oct-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00119	<0.000381	<0.000361	<0.000387	<0.00393
	MW-67	Apr-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.00206 J	<0.00190	<0.00180	<0.00194	<0.0196
	MW-67	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000557 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-67	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-90	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-90	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-90	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-90	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-90	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-90	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-91	Apr-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.214**	<0.0381	<0.0361	**0.0671 J**	<0.393
	MW-91	Oct-18		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.182**	<0.0381	<0.0361	0.0510 J	<0.393
	MW-91	Apr-19		<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.216**	<0.0381	<0.0361	0.0571 J	<0.393
	MW-91	Oct-19		<0.0385	<0.0319	<0.0130	<0.0383 J4	<0.0259	<0.0398	**0.239**	<0.0381 J4	<0.0361	**0.0675 J**	<0.393
	MW-91	Jun-20		<0.0147	<0.0149	<0.0133	<0.0158	<0.0100	<0.0188	**0.234**	<0.0126	<0.00819	**0.0671 J**	<0.119
	MW-92	Apr-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.0588**	<0.000381	<0.000361	0.0174	<0.00393
	MW-92	Oct-16		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0308	<0.00762	<0.00722	0.00835 J	<0.0786
	MW-93	Apr-17		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	**0.148**	<0.00952	<0.00902	0.0236 J	<0.0982
	MW-93	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.116**	<0.000381	<0.000361	0.0260	<0.00393
	MW-93	Apr-19		<0.000385	<0.000319	<0.000130	0.000927 J	<0.000259	<0.000398	**0.187**	<0.000381	<0.000361	0.0356	<0.00393
	MW-93	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.111**	<0.00252	<0.00164	0.0243	<0.0238
	MW-94	Oct-15		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	**0.432**		<0.00361	**0.0857**	<0.0393
	MW-94	Apr-16		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.489**	<0.0190	<0.0180	**0.100**	<0.196 J4
	MW-94	Oct-16		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.458**	<0.00190	<0.00180	**0.0917**	<0.0196
	MW-94	Apr-17		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	**0.398**	<0.00952	<0.00902	**0.0785**	<0.0982
	MW-95	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-95	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-95	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-95	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-96	Apr-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	<0.0186	<0.0190	<0.0180	<0.0194	<0.196
	MW-96	Oct-18		<0.385	<0.319	<0.130	<0.383	<0.259	<0.398	<0.373	<0.381	<0.361	<0.387	<3.93
	MW-96	Apr-19		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	<0.0186	<0.0190	<0.0180	<0.0194	<0.196
	MW-96	Oct-19		<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	<0.0187	<0.0191	<0.0181	<0.0194	<0.197
	MW-96	Jun-20		<0.0368	<0.0373	<0.0333	<0.0395	<0.0250	<0.0470	<0.0805	<0.0315	<0.0205	<0.0260	<0.298
	MW-96	Oct-20		<0.0368	<0.0373	<0.0333	<0.0395	<0.0250	<0.0470	<0.0805	<0.0315	<0.0205	<0.0260	<0.298
	MW-98	Apr-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.475**	<0.0190	<0.0180	**0.116**	<0.196
	MW-98	Oct-18		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.480**	<0.0190	<0.0180	**0.103**	<0.196
	MW-98	Apr-19		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.618**	<0.0190	<0.0180	**0.138**	<0.196
	MW-98	Oct-19		<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	**0.453**	<0.0191	<0.0181	**0.112**	<0.197
	MW-98	Jun-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.646**	<0.00630	<0.00409	**0.110**	<0.0595
	MW-98	Oct-20		<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.371**	<0.00630	<0.00409	**0.0820**	<0.0595
	MW-137	Oct-17		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.559**	<0.0762	<0.0722	**0.137 J**	<0.786
	MW-137	Apr-18		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.531**	<0.0762	<0.0722	**0.125 J**	<0.786
	MW-137	Oct-18		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.342**	<0.0762	<0.0722	<0.0774	<0.786
	MW-137	Apr-19		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.426**	<0.0762	<0.0722	**0.0946 J**	<0.786
	MW-138	Oct-17		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.00547	<0.00190	<0.00180	<0.00194	<0.0196
	MW-138	Apr-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.0413	<0.00190	<0.00180	0.00633	<0.0196
	MW-138	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.0799**	<0.00190	<0.00180	0.0121	<0.0196
	MW-138	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.126**	<0.00190	<0.00180	0.0214	<0.0196
	RW-1R	Apr-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	0.000763 J	0.00369	<0.000381	<0.000361	0.000516 J	<0.00393
	RW-1	Apr-17		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381	<0.00361	<0.00387	<0.0393
	RW-1	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	0.00110	0.0303	<0.000381	<0.000361	0.00550	<0.00393
	RW-1	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	0.00107	0.0348	<0.000381	<0.000361	0.00566	<0.00393
	RW-2	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	**0.330**		<0.00360 UJ	**0.0772**	<0.0390 UJ
	RW-2R	Apr-16		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.188**	<0.0190	<0.0180	0.0419 J	<0.196
	RW-2	Apr-17		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.271**	<0.0190	<0.0180	**0.0664**	<0.196
	RW-2	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	0.00122	**0.329**	<0.000381	<0.000361	**0.0783**	<0.00393
	RW-7	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-7	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00502	<0.000381	<0.000361	0.000415 J	<0.00393
	RW-7	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00114	<0.000381	<0.000361	<0.000387	<0.00393
	RW-7	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000639 J	<0.000126	<0.0000819	<0.000104	<0.00119
	RW-8	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	0.00710 J		<0.00360	<0.00390	<0.0390
	RW-8	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.0928**	<0.000381	0.00343	0.0249	<0.00393
	RW-9	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000991 J	<0.000381	<0.000361	<0.000387	<0.00393
	RW-9	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00314	<0.000381	<0.000361	<0.000387	<0.00393
	RW-9	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-9	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000722 J	<0.000126	0.000218 J	0.000313 J	<0.00119
	RW-10	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-10	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000631 J	<0.000381	<0.000361	<0.000387	<0.00393
	RW-10	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000377 J	<0.000381	<0.000361	<0.000387	<0.00393
	RW-10	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000959 J	<0.000126	<0.0000819	0.000180 J	<0.00119
	RW-16B	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-16B	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-16B	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-16B	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000398 J	<0.000126	<0.0000819	0.000156 J	0.0142
	RW-17A	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-17A	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RW-17A	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	RW-17A	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
North RO Field	MW-117	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-117	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-117	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-117	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-117	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-117	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-118	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-118	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-118	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-118	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-118	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-118	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	**Well ID**	**Date**	**Dup**												
North RO Field	MW-119	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-119	Oct-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-119	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-119	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-119	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-119	Oct-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	KWB-2R	Apr-17			<0.000385	<0.000319	0.000160 J	<0.000383	<0.000259	<0.000398	0.0341	<0.000381	<0.000361	<0.000387	0.0164
	KWB-2R	Oct-17			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.150**	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-2R	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.148**	<0.000381	<0.000361	0.00172	<0.00393
	KWB-2R	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	**0.139**	<0.000381 J4	<0.000361	0.00233	<0.00393
	KWB-5	Oct-17			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.0932	<0.000381	<0.000361	<0.000387	<0.00393
	KWB-5	Apr-18			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	<0.0932	<0.0952	<0.0902	<0.0968	<0.982
	KWB-5	Oct-18			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	<0.0932	<0.0952	<0.0902	<0.0968	<0.982
	KWB-5	Apr-19			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	<0.0932	<0.0952	<0.0902	<0.0968	<0.982
	KWB-6	Apr-17			<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.399**	<0.00190	0.00451 J	0.0517	<0.0196
	KWB-6	Oct-17			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**0.206**	<0.000381	<0.000361	0.0302	<0.00393
	KWB-6	Apr-18			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.164**	<0.00762	<0.00722	0.0557	<0.0786
	KWB-6	Oct-18			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.122**	<0.00762	<0.00722	**0.0611**	<0.0786 J3J4
	MW-28	Apr-18			<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	**0.110**	<0.0190	<0.0180	<0.0194	<0.196
	MW-28	Oct-18			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0165 J	<0.00762	<0.00722	<0.00774	<0.0786
	MW-28	Apr-19			<0.0192	<0.0160	<0.00650	<0.0192 J4	<0.0130	<0.0199	**0.107**	<0.0190	<0.0180	<0.0194	<0.196
	MW-28	Oct-19			<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	**0.213**	<0.0191	<0.0181	0.0243 J	<0.197
	MW-28	Jun-20			<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.0527	<0.000630	<0.000409	<0.000520	<0.00595
	MW-28	Oct-20			<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	0.0430	<0.000630	<0.000409	0.00133 J	<0.00595
	MW-48	Apr-18			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.381**	<0.0952	<0.0902	<0.0968	<0.982
	MW-48	Oct-18			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.377**	<0.0952	<0.0902	<0.0968	<0.982 J3J4
	MW-48	Apr-19			<0.0962	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.564**	<0.0952	<0.0902	<0.0968	<0.982
	MW-48	Oct-19			<0.0963	<0.0798	<0.0325	<0.0958	<0.0648	<0.0995	**0.240 J**	<0.0953	<0.0903	<0.0967	<0.983
	MW-50	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-50	Oct-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-50	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-50	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-50	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-50	Oct-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-52	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-52	Oct-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-52	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-52	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-52	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-52	Oct-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-64	Apr-18			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	0.0519	<0.00762	<0.00722	0.0107 J	<0.0786
	MW-64	Oct-18			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.620**	<0.00762	<0.00722	**0.123**	<0.0786
	MW-64	Apr-19			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.592**	<0.00762	<0.00722	**0.117**	<0.0786
	MW-64	Oct-19			<0.00963	<0.00797	<0.00325	<0.00958 J4	<0.00648	<0.00995	**0.522**	<0.00953 J4	<0.00903	**0.102**	<0.0983
	MW-64	Jun-20			<0.0735	<0.0745	<0.0665	<0.0790	<0.0500	<0.0940	**0.453 J**	<0.0630	<0.0409	**0.0760 J**	<0.595
	MW-64	Oct-20			<0.0735	<0.0745	<0.0665	<0.0790	<0.0500	<0.0940	**0.252 J**	<0.0630	<0.0409	<0.0520	<0.595
	MW-65	Apr-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-65	Oct-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-65	Apr-19			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	<0.0373	<0.0381	<0.0361	<0.0387	<0.393
	MW-65	Oct-19			<0.0385	<0.0319	<0.0130	<0.0383 J4	<0.0259	<0.0398	<0.0373	<0.0381 J4	<0.0361	<0.0387	<0.393
	MW-66	Apr-18			<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381	<0.00361	<0.00387	<0.0393
	MW-66	Oct-18			<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	<0.00373	<0.00381	<0.00361	<0.00387	<0.0393 J3J4
	MW-66	Apr-19			<0.00962	<0.00798	<0.00325	<0.00958 J4	<0.00648	<0.00995	<0.00932	<0.00952	<0.00902	<0.00968	<0.0982
	MW-66	Oct-19			<0.00963	<0.00797	<0.00325	<0.00958	<0.00648	<0.00995	<0.00933	<0.00953	<0.00903	<0.00968	<0.0983
	MW-66	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000705 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-66	Oct-20			<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119
	MW-99	Apr-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.168**	<0.0381	<0.0361	<0.0387	<0.393
	MW-99	Oct-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.284**	<0.0381	<0.0361	<0.0387	<0.393 J3J4
	MW-99	Apr-19			<0.0385	<0.0319	<0.0130	<0.0383 J4	<0.0259	<0.0398	**0.352**	<0.0381	<0.0361	<0.0387	<0.393
	MW-99	Oct-19			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.234**	<0.0381	<0.0361	<0.0387	<0.393
	MW-99	Jun-20			<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	**0.149**	<0.00126	<0.000819	<0.00104	<0.0119
	MW-101	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-101	Oct-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-101	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-101	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-101	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-101	Oct-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.0254	<0.000126	<0.0000819	0.00284	<0.00119
	MW-102	Apr-18			<0.192	<0.160	<0.0650	<0.192	<0.130	<0.199	**0.288 J**	<0.190	<0.180	<0.194	<1.96
	MW-102	Oct-18			<0.192	<0.160	<0.0650	<0.192	<0.130	<0.199	**0.196 J**	<0.190	<0.180	<0.194	<1.96
	MW-102	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	**0.235**	<0.000381	<0.000361	0.0306	<0.00393
	MW-102	Oct-19			<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	**0.263**	<0.0191	<0.0181	0.0481 J	<0.197
	MW-102	Jun-20			<0.0147	<0.0149	<0.0133	<0.0158	<0.0100	<0.0188	**0.0927 J**	<0.0126	<0.00819	<0.0104	<0.119
	MW-102	Oct-20			<0.0147	<0.0149	<0.0133	<0.0158	<0.0100	<0.0188	**0.0910 J**	<0.0126	<0.00819	0.0117 J	<0.119
	MW-103	Apr-17			<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	<0.0186	<0.0190	<0.0180	<0.0194	<0.196
	MW-103	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-103	Apr-19			<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786
	MW-103	Jun-20			<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	<0.00644	<0.00252	<0.00164	<0.00208	<0.0238
	MW-104	Apr-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-104	Apr-18	FD		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-104	Oct-18			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-104	Oct-18	FD		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	MW-104	Apr-19			<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-104	Apr-19	FD		<0.000385	<0.000319	<0.000130	**0.00760**	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-104	Oct-19			<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.000715 J	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-104	Oct-19	FD		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000374 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-104	Jun-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000486 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-104	Jun-20	FD		<0.000147	<0.000149	<0.000133	<0.000158 J4	<0.000100	<0.000188	0.000368 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-104	Oct-20			<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-104	Oct-20	FD		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000351 J	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-105	Apr-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.0805 J**	<0.0381	<0.0361	<0.0387	<0.393
	MW-105	Oct-18			<0.0385	<0.0319	<0.0130	<0.0383	<0.0259	<0.0398	**0.0751 J**	<0.0381	<0.0361	<0.0387	<0.393
	MW-105	Apr-19			<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0442	<0.000381 J4	<0.000361	0.0237	<0.00393
	MW-105	Oct-19			<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	0.0522	<0.0191	<0.0181	0.0365 J	<0.197
	MW-105	Jun-20			<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	0.0443 J	<0.00630	<0.00409	0.0247 J	<0.0595
	MW-105	Oct-20			<0.00735	<0.00745	<0.00665	<0.00790	<0.00500	<0.00940	**0.0572**	<0.00630	<0.00409	0.0202 J	<0.0595

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	Well ID	Date	Dup												
South Refinery	MW-106	Apr-18		<0.0770	<0.0638	<0.0260	<0.0766	<0.0518	<0.0796	**0.110** J	<0.0762	<0.0722	<0.0774	<0.786
	MW-106	Oct-18		<0.192	<0.160	<0.0650	<0.192	<0.130	<0.199	<0.186	<0.190	<0.180	<0.194	<1.96
	MW-106	Apr-19		<0.192 J4	<0.160	<0.0650	<0.192	<0.130	<0.199	**0.554**	<0.190 J4	<0.180	**0.281** J	<1.96
	MW-106	Oct-19		<0.0193	<0.0159	<0.00650	<0.0192	<0.0130	<0.0199	**0.0848**	<0.0191	<0.0181	<0.0194	<0.197
	MW-106	Jun-20		<0.0147	<0.0149	<0.0133	<0.0158	<0.0100	<0.0188	**0.0861** J	<0.0126	<0.00819	0.0146 J	<0.119
	MW-106	Oct-20		<0.0294	<0.0298	<0.0266	<0.0316	<0.0200	<0.0376	**0.0943** J	<0.0252	<0.0164	<0.0208	<0.238
	MW-107	Oct-16		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	0.00205 J	<0.00190	<0.00180	<0.00194	<0.0196
	MW-107	Apr-17		<0.0192	<0.0160	<0.00650	<0.0192	<0.0130	<0.0199	<0.0186	<0.0190	<0.0180	<0.0194	<0.196
	MW-107	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00228	<0.000381	<0.000361	0.00425	<0.00393
	MW-107	Apr-19		<0.0962	<0.0798	<0.0325	<0.0958 J4	<0.0648	<0.0995	<0.0932	<0.0952	<0.0902	<0.0968	<0.982
	MW-109	Apr-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786
	MW-109	Oct-18		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786 J3J4
	MW-109	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	<0.00746	<0.00762	<0.00722	<0.00774	<0.0786
	MW-109	Oct-19		<0.00193	<0.00159	<0.000650	<0.00192 J4	<0.00130	<0.00199	0.00288 J	<0.00191	<0.00181	<0.00194	<0.0197
	MW-109	Jun-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119
	MW-109	Oct-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	<0.00322	<0.00126	<0.000819	<0.00104	<0.0119
	MW-110	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0445	<0.000381	<0.000361	0.00247	<0.00393
	MW-110	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-110	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000560 J	<0.000381	<0.000361	<0.000387	<0.00393
	MW-110	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-110	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00293	<0.000126	<0.0000819	0.000744 J	<0.00119
	MW-110	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-139	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	0.00846 J
	MW-139	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-139	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	RA-313	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-313	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-313	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	RA-313	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	RW-4	Apr-17		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	RW-4	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000659 J	<0.000381	<0.000361	<0.000387	<0.00393
	RW-4	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.00105	<0.000381	<0.000361	0.000400 J	<0.00393
	RW-4	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000958 J	<0.000126	<0.0000819	0.000329 J	<0.00119
	RW-5R	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	**0.298**		<0.00360	0.0558	<0.0390
	RW-5R	Apr-16		<0.00770	<0.00638	<0.00260	<0.00766	<0.00518	<0.00796	**0.437**	<0.00762	<0.00722	**0.100**	<0.0786
	RW-6	Apr-15		<0.00380	<0.00319	<0.00130	<0.00380	<0.00260	<0.00400	**0.134**		<0.00360	0.0280	<0.0390
	RW-6R	Apr-16		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00555	<0.000381	<0.000361	0.00111	<0.00393
	RW-6	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0143	<0.000381	<0.000361	0.00259	<0.00393
	RW-6	Apr-19		<0.00770	<0.00638	<0.00260	<0.00766 J4	<0.00518	<0.00796	0.0110 J	<0.00762	<0.00722	<0.00774	<0.0786
	RW-15C	Apr-17		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	**1.46**	<0.00952	<0.00902	**0.231**	<0.0982
	RW-15C	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	**1.06**	<0.000381	<0.000361	**0.138**	<0.00393
	RW-15C	Apr-19		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	**0.728**	<0.00381	<0.00361	0.0476	<0.0393
South RO Field	MW-114	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-114	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-114	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-114	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-114	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-114	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-115	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-115	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393 J3J4
	MW-115	Apr-19		<0.000385 J4	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-115	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-115	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-115	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-116	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-116	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-116	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-116	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381 J4	<0.000361	<0.000387	<0.00393
	MW-116	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-116	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
TEL	MW-49	Apr-18		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	**0.0861**	<0.00381	<0.00361	0.0151	<0.0393
	MW-49	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.0921**	<0.00190	<0.00180	0.0159	<0.0196
	MW-49	Apr-19		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	**0.0784**	<0.00190	<0.00180	0.0112	<0.0196
	MW-49	Oct-19		<0.00193	<0.00159	<0.000650 J4	<0.00192	<0.00130	<0.00199	**0.0794**	<0.00191	<0.00181	0.0155	<0.0197
	MW-49	Jun-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.115**	<0.00252	<0.00164	0.0214	<0.0238
	MW-49	Oct-20		<0.00294	<0.00298	<0.00266	<0.00316	<0.00200	<0.00376	**0.0763**	<0.00252	<0.00164	0.0154 J	<0.0238
	TEL-1	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.000848 J	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-1	Oct-18		<0.00192	<0.00160	<0.000650	<0.00192	<0.00130	<0.00199	<0.00186	<0.00190	<0.00180	<0.00194	<0.0196
	TEL-1	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.000820 J	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-1	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00140	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-1	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.00114	<0.000126	<0.0000819	0.000302 J	<0.00119
	TEL-2	Apr-18		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	**0.0855**	<0.00381	<0.00361	0.00503 J	<0.0393
	TEL-2	Oct-18		<0.00962	<0.00798	<0.00325	<0.00958	<0.00648	<0.00995	**0.115**	<0.00952	<0.00902	0.0165 J	<0.0982
	TEL-2	Apr-19		<0.00385	<0.00319	<0.00130	<0.00383 J4	<0.00259	<0.00398	**0.0639**	<0.00381	<0.00361	0.00655 J	<0.0393
	TEL-2	Oct-19		<0.00385	<0.00319	<0.00130	<0.00383	<0.00259	<0.00398	**0.0603**	<0.00381	<0.00361	0.00551 J	<0.0393
	TEL-2	Jun-20		<0.00147	<0.00149	<0.00133	<0.00158	<0.00100	<0.00188	0.0402	<0.00126	<0.000819	0.00377 J	<0.0119
	TEL-3	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0200	<0.000381	<0.000361	0.000983 J	<0.00393
	TEL-3	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.0226	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-3	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.0379	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-3	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	**0.0659**	<0.000126	<0.0000819	0.00147	<0.00119
	TEL-4	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00454	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Apr-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00438	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00321	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Oct-18	FD	<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	0.00395	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.00105	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Apr-19	FD	<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	0.00105	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Oct-19		<0.00193	<0.00159	<0.000650	0.00347 J	<0.00130	<0.00199	<0.00187	<0.00191	<0.00181	<0.00194	<0.0197
	TEL-4	Oct-19	FD	<0.000385	<0.000319	<0.000130 J4	<0.000383	<0.000259	<0.000398	0.000713 J	<0.000381	<0.000361	<0.000387	<0.00393
	TEL-4	Jun-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	TEL-4	Jun-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000866 J	<0.000126	<0.0000819	<0.000104	<0.00119
	TEL-4	Oct-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	TEL-4	Oct-20	FD	<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119 J3
TMD	MW-8	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-8	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-8	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-8	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-16	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-16	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-16	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387 J4	<0.00393
	MW-16	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	1,1,1,2-Tetra-chloroethane	1,1,1-Tri-chloroethane	1,1,2,2-Tetra-chloroethane	1,1,2-Tri-chloroethane	1,1-Di-chloroethane	1,1-Di-chloroethene	1,2,4-Trimethyl-benzene	1,2-Dibromo-ethane (Ethylene dibromide)	1,2-Di-chloroethane	1,3,5-Trimethyl-benzene	2-Butanone (MEK)
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	0.200	0.01	0.005	0.025	0.00700	0.0560	0.0000500	0.00500	0.0600	5.56
				CGWSL Source:	---	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	NMED TW
Area	**Well ID**	**Date**	**Dup**												
TMD	MW-20	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-20	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-20	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-20	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-21	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-21	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-21	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-21	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-21	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-21	Oct-20		<0.000735	<0.000745	<0.000665	<0.000790	<0.000500	<0.000940	<0.00161	<0.000630	<0.000409	<0.000520	<0.00595
	MW-25	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-25	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-25	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-25	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-26	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-26	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-26	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-26	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-27	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-27	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-27	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-27	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-46R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-46R	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-46R	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-46R	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-46R	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-46R	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-68	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-68	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-68	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-68	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	MW-71	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-71	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-71	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-71	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.000171 J	<0.000104	<0.00119
	MW-89	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-89	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-89	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383 J4	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	MW-89	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	NP-1	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-1	Oct-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-1	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-1	Oct-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-1	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	0.000187 J	<0.000104	<0.00119
	NP-1	Oct-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	0.000430 J	<0.000126	<0.0000819	0.000104 J	<0.00119
	NP-6	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500		<0.00500	<0.00500	<0.0100
	NP-6	Apr-15		<0.000380	<0.000319	<0.000130	<0.000380	<0.000260	<0.000400	<0.000370		<0.000360 UJ	<0.000390	<0.00390 UJ
	NP-6	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	NP-6	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
Upgradient	UG-1	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-1	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-1	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-1	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	UG-2	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-2	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-2	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-2	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	UG-3R	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-3R	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-3R	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-3R	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119
	UG-4	Apr-17		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-4	Apr-18		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-4	Apr-19		<0.000385	<0.000319	<0.000130	<0.000383	<0.000259	<0.000398	<0.000373	<0.000381	<0.000361	<0.000387	<0.00393
	UG-4	Jun-20		<0.000147	<0.000149	<0.000133	<0.000158	<0.000100	<0.000188	<0.000322	<0.000126	<0.0000819	<0.000104	<0.00119

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup													
Cross-Gradient	KWB-13	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-13	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-13	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-13	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000205 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-136	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-136	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-136	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-136	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-136	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000273 JB	<0.000128	<0.000116	<0.000192
	MW-136	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	NP-5	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	NP-5	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	NP-5	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-5	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-3156	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-3156	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-3156	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	RA-3156	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000520 JB	<0.000128	<0.000116	<0.000192
Evaporation Ponds	MW-1R	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-1R	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-1R	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-1R	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-2A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-2A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-2A	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-2A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-2A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-2A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-3	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-3	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-3	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-3	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-3	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-3	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-3	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-3	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-3	Jun-20		<0.0197	<0.00300	<0.0120	<0.282	<0.00235	<0.00340	<0.00322	<0.0151	<0.00241	<0.00320	<0.00290	<0.00480
	MW-3	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J3	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-3	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000107 J	<0.000128	<0.000116	<0.000192
	MW-3	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-4A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-4A	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-4A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-4A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-4A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-4A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-4B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-4B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	0.00183	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-4B	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-4B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	0.000393 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5A	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-5A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-5A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-5A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-5B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-5B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-5B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5C	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-5C	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-5C	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-5C	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-6A	Apr-17		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-6A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-6A	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	0.00190 J	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-6A	Jun-20		<0.00394	<0.000600	<0.00239	<0.0565	<0.000471	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-6B	Mar-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-6B	Mar-13	FD	<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-6B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-6B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-6B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-7A	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-7A	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-7A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-7A	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-7A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-7A	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-7B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-7B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-7B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-7B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-10	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-10	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-10	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-10	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-10	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-10	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-11A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-11A	Oct-18													
	MW-11A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-11A	Oct-19													
	MW-11A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-11A	Oct-20													

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds											
		Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
		CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup											
Evaporation Ponds	MW-11B	Mar-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-11B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-11B	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-11B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-15	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-15	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-15	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-15	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-18A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-18A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-18A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-18A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-18B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-18B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-18B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-22A	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-22A	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-22A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-22A	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-22B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-22B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-22B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-22B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-70	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-70	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-70	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-70	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-70	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-70	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000277 JB	<0.000128	<0.000116	<0.000192
	MW-72	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-72	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-72	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-72	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-73	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-73	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-73	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-73	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-74	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-74	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-74	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-74	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-74	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-74	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-75	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-75	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-75	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-75	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-75	Jun-20		<0.0197	<0.00300	<0.0120	<0.282	<0.00235	<0.00340	<0.00322	<0.0151	<0.00241	<0.00320	<0.00290	<0.00480
	MW-75	Oct-20		<0.0197	<0.00300	<0.0120	<0.282	<0.00235	<0.00340	<0.00322	<0.0151	<0.00241	<0.00320	<0.00290	<0.00480
	MW-76	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-76	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-76	Apr-19		<0.00382	<0.000350	<0.00214	0.0130 J	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-76	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-76	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-76	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128 J4	<0.000116	<0.000192
	MW-77	Apr-17		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-77	Apr-18		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-77	Apr-19		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-77	Jun-20		<0.0197	<0.00300	<0.0120	<0.282	<0.00235	<0.00340	<0.00322	<0.0151	<0.00241	<0.00320	<0.00290	<0.00480
	MW-78	Apr-17		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-78	Apr-18		<0.00382	<0.000350	<0.00214	0.0139 J	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-78	Apr-19		<0.0382	<0.00350	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-78	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-79	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-79	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-79	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-79	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-79	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-79	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-80	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-80	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-80	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-80	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-81	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-81	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-81	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-81	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-82	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-82	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-82	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-82	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-83	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	0.00166	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-83	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-83	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-83	Oct-19		<0.00382	<0.000350	<0.00214	0.0135 J	<0.000331	<0.000380	<0.000469	<0.000866	0.000907 JB	<0.000379	<0.000348	<0.000453
	MW-83	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-83	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000236 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-84	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-84	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-84	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-84	Oct-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00227
	MW-84	Jun-20		<0.00394	<0.000600	<0.00239	<0.0565	<0.000471	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580 J4	<0.000960
	MW-84	Oct-20		<0.00787	<0.00120	<0.00478	<0.113	<0.000941	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	**Well ID**	**Date**	**Dup**													
Evaporation Ponds	MW-86	Jun-20		<0.0157	<0.00240	<0.00956	<0.226	**0.0242**	<0.00272	<0.00258	<0.0121	0.00254 J	<0.00256	<0.00232 J4	<0.00384
	MW-86	Oct-20		<0.0157	<0.00240	<0.00956	<0.226	**0.0313**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384
	MW-87	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-87	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-87	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-87	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-87	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-87	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-88	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-88	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-88	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-88	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-88	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-88	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128 J4	<0.000116	<0.000192
	MW-120	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-120	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-120	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-120	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000577 JB	<0.000379	<0.000348	<0.000453
	MW-120	Jun-20		<0.00394	<0.000600	<0.00239	<0.0565	<0.000471	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-120	Oct-20		<0.00394	<0.000600	<0.00239	<0.0565	<0.000471	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-121	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-121	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-121	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-121	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-121	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-121	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-122	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-122	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-122	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-122	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000536 JB	<0.000379	<0.000348	<0.000453
	MW-122	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128 J4	<0.000116	<0.000192
	MW-122	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-123	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-123	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-123	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-123	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-123	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-123	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-124	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-124	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-124	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-124	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	MW-124	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-124	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-1R	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-1R	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-1R	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-1R	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-1R	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-1R	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-2A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-2A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-2A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-2A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-2A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-2A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-3	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-3	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-3	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-3	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-3	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-3	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-4	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	OCD-4	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-4	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-4	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-4	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-4	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-5	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	OCD-5	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-5	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-5	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-5	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-5	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-6	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-6	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-6	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-6	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-6	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-6	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-7AR	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-7AR	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-7AR	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-7AR	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-7AR	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-7AR	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-7B	Mar-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	OCD-7B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	0.000420 J	<0.000380	<0.000350	<0.000450
	OCD-7B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-7B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-8A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-8A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-8A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-8A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275 J3	<0.000379 J3	<0.000348	<0.000453
	OCD-8A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-8A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	OCD-8B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	OCD-8B	Apr-15		<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	OCD-8B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	OCD-8B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
Field East of Refinery	KWB-1A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-1A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-1A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-1A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-1A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000300 JB	<0.000128	<0.000116	<0.000192
	KWB-1A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup													
Field East of Refinery	KWB-1C	Apr-13			<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	KWB-1C	Apr-15			<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	KWB-1C	Apr-17			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-1C	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-7	Oct-17			<0.00382	0.000418 J	<0.00214	<0.0100	**0.0363**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-7	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	**0.0247**	<0.000380	<0.000469	<0.000866	0.00891	<0.000379	<0.000348	<0.000453 J4
	KWB-7	Jun-20			<0.000787	0.00161	<0.000478	<0.0113	**0.0545**	<0.000136	<0.000129	<0.000605	0.00118	<0.000128	<0.000116	<0.000192
	KWB-7	Oct-20			<0.000787	0.000201 J	<0.000478	<0.0113	**0.00789**	<0.000136	<0.000129	<0.000605	0.000319 JB	<0.000128	<0.000116	<0.000192
	KWB-8	Oct-16			<0.764	<0.0700	<0.428	<2.00	**11.5**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906
	KWB-8	Apr-17			<0.382	<0.0350	<0.214	<1.00	**5.62**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	KWB-8	Oct-17			0.00515 J	0.00112	<0.00214	0.0801 V3	**12.5**	<0.000380	<0.000469	<0.000866	0.00427 V3	<0.000379	<0.000348	<0.000453
	KWB-8	Oct-20			<0.157	<0.0240	<0.0956	<2.26	**17.8**	<0.0272	<0.0258	<0.121	0.0664 JB	<0.0256	<0.0232	<0.0384
	KWB-10R	Apr-17			<0.191	<0.0175	<0.107	<0.500	**4.95**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	KWB-10R	Oct-17			<0.00382	0.0184	<0.00214	<0.0100	**7.06**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-10R	Apr-18			<0.955	<0.0875	<0.535	<2.50	**3.06**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113
	KWB-10R	Oct-18			<0.955	<0.0875	<0.535	<2.50	**3.81**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113 J4
	KWB-11A	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	0.000985 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-11A	Oct-18			<0.00382	0.000647 J	<0.00214	<0.0100	0.00333	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	KWB-11A	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100 J4	0.000898 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-11A	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	0.000492 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-11A	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	0.00234	<0.000136	<0.000129	<0.000605	0.000169 JB	<0.000128	<0.000116	<0.000192
	KWB-11B	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-11B	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	KWB-11B	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-11B	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-11B	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-11B	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	0.00192	<0.000136	<0.000129	<0.000605	0.000191 JB	<0.000128	<0.000116	<0.000192
	KWB-12A	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12A	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12A	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	KWB-12A	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-12B	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Apr-18	FD		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	KWB-12B	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Oct-18	FD		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Apr-19	FD		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Oct-19	FD		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-12B	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	KWB-12B	Jun-20	FD		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-12B	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-12B	Oct-20	FD		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	KWB-P4	Apr-13			<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	KWB-P4	Apr-15			<0.00380	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	KWB-P4	Apr-17			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-P4	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-57	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-57	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-57	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-57	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-57	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-57	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-58	Oct-17			<0.00382	0.00399	<0.00214	<0.0100	**4.08**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-58	Apr-18			<0.191	<0.0175	<0.107	<0.500	**4.12**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-58	Oct-18			<0.191	<0.0175	<0.107	<0.500 J3	**7.11**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-58	Oct-19			<0.0382	0.00466 J	<0.0214	<0.100	**3.78**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-111	Apr-18			<0.0955	<0.00875	<0.0535	<0.250	**0.0216 J**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113
	MW-111	Oct-18			<0.0955	<0.00875	<0.0535	<0.250	**0.0268**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113 J4
	MW-111	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	**0.115**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-111	Oct-19			<0.00382	<0.000350	<0.00214	0.0116 J	**0.167**	<0.000380	<0.000469	<0.000866	<0.00688	<0.000379	<0.000348	<0.000453
	MW-111	Jun-20			<0.0197	<0.00300	<0.0120	<0.282	**0.439**	<0.00340	<0.00322	<0.0151	0.00625 JB	<0.00320	<0.00290	<0.00480
	MW-112	Nov-14			<0.0960	<0.00880	<0.0540	<0.250	**8.50**	<0.00950	<0.0120	<0.0220	<0.00690	<0.00950	<0.00870	<0.0110
	MW-113	Apr-18			<0.00382	<0.000350	<0.00214	0.0307 J	**0.00908**	<0.000380	<0.000469	<0.000866	0.000571 J	<0.000379	<0.000348	<0.000453
	MW-113	Apr-18	FD		<0.00382	<0.000350	<0.00214	<0.0100	**0.00996**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-113	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	0.00182	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-113	Oct-18	FD		<0.00382	<0.000350	<0.00214	<0.0100	0.00130	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-113	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100 J4	**0.0154**	<0.000380	<0.000469	<0.000866	0.00171	<0.000379	<0.000348	<0.000453
	MW-113	Apr-19	FD		<0.00382	<0.000350	<0.00214	<0.0100	**0.0139**	<0.000380	<0.000469	<0.000866	0.000317 J	<0.000379	<0.000348	<0.000453
	MW-113	Oct-19			<0.00382	0.00313	0.00408 J	<0.0100	**0.547 J4**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-113	Oct-19	FD		<0.00382	0.00292	0.00587 J	<0.0100	**0.546**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-113	Jun-20			<0.00394	0.00138 J	<0.00239	<0.0565	**0.0306**	<0.000680	<0.000645	<0.00303	0.00281 JB	<0.000640	<0.000580	<0.000960
	MW-113	Jun-20	FD		<0.000787	0.00157	0.000770 J	0.0396 J	**0.0248**	<0.000136	<0.000129	<0.000605	0.000181 J	<0.000128	<0.000116 J4	<0.000192
	MW-113	Oct-20			<0.00394	0.00147 J	<0.00239	<0.0565	**0.368**	<0.000680	<0.000645	<0.00303	0.00185 JB	<0.000640	<0.000580	<0.000960
	MW-113	Oct-20	FD		<0.000787	0.00191	<0.000478	<0.0113	**0.428**	<0.000136	<0.000129	<0.000605	0.000234 JB	<0.000128	<0.000116	<0.000192
	MW-125	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-125	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-125	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-125	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-125	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-125	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-126A	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126A	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-126A	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126A	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	**0.170**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126A	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-126A	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-126B	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126B	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-126B	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126B	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-126B	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-126B	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-127	Oct-17			<0.00382	<0.000350	<0.00214	<0.0100	**0.462**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-127	Apr-18			<0.0764	<0.00700	<0.0428	<0.200	**1.18**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-127	Oct-18			<0.0764	<0.00700	<0.0428	<0.200	**1.15**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906 J4
	MW-127	Apr-19			<0.0764	<0.00700	<0.0428	<0.200	**1.65**	<0.00760	<0.00938	<0.0173 J3	<0.00550	<0.00758	<0.00696	<0.00906

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	**Well ID**	**Date**	**Dup**													
Field East of Refinery	MW-128	Oct-17		<0.00382	<0.000350	<0.00214	<0.0100	**0.0701**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-128	Apr-18		<0.0764	<0.00700	<0.0428	<0.200	**0.122**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-128	Oct-18		<0.0764	<0.00700	<0.0428	<0.200	**0.729**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-128	Apr-19		<0.0764	<0.00700	<0.0428	<0.200 J4	**0.643**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-129	Apr-16		<0.00382	<0.000350	<0.00214	<0.0100	<0.0166	<0.000380	<0.000469	<0.000866	0.000295 J	<0.000379	<0.000348	<0.000453
	MW-129	Oct-16		<0.00382	<0.000350	<0.00214	<0.0100	**0.00791**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-129	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	0.00299	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-129	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	**0.00731**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-130	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-130	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-130	Apr-19		<0.00382	<0.000350	<0.00214	0.0116 J	0.000351 J	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-130	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-130	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000332 JB	<0.000128	<0.000116	<0.000192
	MW-130	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-131	Apr-17		<0.00382	0.000554 J	<0.00214	<0.0100	**3.09**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-131	Oct-17		<0.00382	0.000701 J	<0.00214	<0.0100	**1.39**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-131	Oct-19		<0.00382	0.00141	<0.00214	<0.0100	**0.796**	<0.000380	<0.000469	<0.000866	<0.0138	<0.000379	<0.000348	<0.000453
	MW-131	Jun-20		<0.0394	<0.00600	<0.0239	<0.565	**0.907**	<0.00680	<0.00645	<0.0303	<0.00481	<0.00640	<0.00580	<0.00960
	MW-133	Nov-14		<0.380	<0.0350	<0.210	<1.00	**0.620**	<0.0380	<0.0470	<0.0870	<0.0280	<0.0380	<0.0350	<0.0450
	MW-133	Apr-15		<0.380	<0.0350	<0.210	<1.00	**0.788**	<0.0380	<0.0470	<0.0870	<0.0280	<0.0380	<0.0350	<0.0450
	MW-134	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000386 J	<0.000379	<0.000348	<0.000453
	MW-134	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-134	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	0.000947 J	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	0.00279	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	0.000392 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-134	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000449 JB	<0.000128	<0.000116	<0.000192
	MW-134	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-134	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-134	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-134	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-135	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-135	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-135	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-135	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-135	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000301 JB	<0.000128	<0.000116	<0.000192
	MW-135	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00250	<0.000136	<0.000129	<0.000605	0.000188 JB	<0.000128	<0.000116	<0.000192
	MW-145	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113 J4	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-145	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113 J4	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-146	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113 J4	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-147	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113 J4	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-148	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113 J4	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	RA-4196	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4196	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4196	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4196	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4196	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000840 JB	<0.000128	<0.000116	<0.000192
	RA-4196	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941 Q	<0.000136	<0.000129	<0.000605	0.000179 JB	<0.000128	<0.000116	<0.000192
	RA-4798	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4798	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4798	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4798	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-4798	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000356 JB	<0.000128	<0.000116	<0.000192
	RA-4798	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941 Q	<0.000136	<0.000129	<0.000605	0.000185 JB	<0.000128	<0.000116	<0.000192
	RW-12R	Apr-17		<0.0191	0.00214 J	<0.0107	<0.0500	**0.335**	<0.00190	<0.00234	<0.00433	0.00142 J	<0.00190	<0.00174	<0.00226
	RW-12R	Apr-18		<0.00382	0.000372 J	<0.00214	0.0352 J	**0.0358**	<0.000380	<0.000469	<0.000866	0.00104	<0.000379	<0.000348	<0.000453
	RW-12R	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	**0.0764**	<0.000380	<0.000469	<0.000866	0.00155	<0.000379	<0.000348	<0.000453
	RW-12R	Jun-20		<0.000787	0.000352 J	0.00567 J	<0.0113	**0.154**	<0.000136	<0.000129	<0.000605	0.00118 B	<0.000128	<0.000116	<0.000192
	RW-13R	Apr-16		<0.00382	0.000561 J	<0.00214	<0.0100	**0.878**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RW-13R	Apr-18		<0.00382	0.00134	<0.00214	0.0281 J	**0.0770**	<0.000380	<0.000469	<0.000866	0.000455 J	<0.000379	<0.000348	<0.000453
	RW-18A	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RW-18A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RW-18A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	RW-18A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	RW-20	Apr-15		<0.0380	0.00401 J	<0.0210	<0.100	**1.87**	<0.00380	<0.00470	<0.00870	<0.00280	<0.00380	<0.00350	<0.00450
	RW-22	Apr-15		<0.0380	0.00521 J	<0.0210	<0.100	**4.07**	<0.00380	<0.00470	<0.00870	<0.00280	<0.00380	<0.00350	<0.00450
NCL	MW-18	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-18	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-45	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-45	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-45	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-45	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-45	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-45	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113 J3	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-53	Apr-16		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-53	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-53	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-53	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-53R	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-54A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-54A	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.00112 B	<0.000379	<0.000348	<0.000453
	MW-54A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-54A	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-54A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-54A	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000171 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-54B	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	MW-54B	Apr-15		<0.00380	<0.000350	<0.00210	0.0128 J	<0.000330	<0.000380	<0.000470	<0.000870	<0.000280	<0.000380	<0.000350	<0.000450
	MW-54B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-54B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-55	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-55	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-55	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-55	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-55	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-55	Oct-20		<0.00787	<0.00120	<0.00478	<0.113	<0.000941	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	MW-56	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-56	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-56	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-56	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-108	Apr-18		<0.0955	<0.00875	<0.0535	<0.250	**0.265**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113
	MW-108	Oct-18		<0.0191	0.00337 J	<0.0107	<0.0500	**0.404**	<0.00190	<0.00234	<0.00433	0.00363 J	<0.00190	<0.00174	<0.00226
	MW-108	Apr-19		<0.0191	0.00237 J	<0.0107	<0.0500	**0.328**	<0.00190	<0.00234	<0.00433	0.00170 J	<0.00190	<0.00174	<0.00226
	MW-108	Oct-19		<0.0191	0.00251 J	<0.0107	<0.0500	**0.301**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00227
	MW-108	Jun-20		<0.00394	0.00115 J	<0.00239	<0.0565	**0.235**	<0.000680	<0.000645	<0.00303	0.000980 JB	<0.000640	<0.000580	<0.000960
	MW-108	Oct-20		<0.00394	<0.000600	<0.00239	<0.0565	**0.100**	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds												
			Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
			CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup												
NCL	NCL-31	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-31	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-31	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-31	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-31	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-31	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-32	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-32	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-32	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-32	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-32	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-32	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-33	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-33	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000673 JB	<0.000379	<0.000348	<0.000453
	NCL-33	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-33	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-33	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-33	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-34A	Apr-18		<0.0382	0.00522 J	<0.0214	<0.100	**1.02**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	NCL-34A	Oct-18		<0.0382	<0.00350	<0.0214	<0.100	**1.11**	<0.00380	<0.00469	<0.00866	0.0105 B	<0.00379	<0.00348	<0.00453
	NCL-34A	Apr-19		<0.0764	<0.00700	<0.0428	<0.200	**0.479**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	NCL-34A	Oct-19		<0.0191	0.00219 J	<0.0107	<0.0500	**0.562**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00227
	NCL-34A	Jun-20		<0.0157	<0.00240	<0.00956	<0.226	**1.10**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384
	NCL-44	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-44	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-44	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-44	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-44	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-44	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-49	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.00152 B	<0.000379	<0.000348	<0.000453
	NCL-49	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000727 JB	<0.000379	<0.000348	<0.000453
	NCL-49	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NCL-49	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-49	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-49	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NCL-49	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
North Refinery	MW-23	Apr-18		<0.382	<0.0350	<0.214	<1.00	**9.68**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-23	Oct-18		<0.382	<0.0350	<0.214	<1.00	**6.27**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-23	Apr-19		<0.382	<0.0350	<0.214	<1.00	**5.52**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-23	Oct-19		<0.0382	<0.00350	<0.0214	<0.100	**1.42**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-23	Jun-20		<0.00787	<0.00120	<0.00478	<0.113	**2.68**	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	MW-23	Oct-20		<0.00787	<0.00120	<0.00478	<0.113	**0.915**	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	MW-29	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-29	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-29	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-29	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-29	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000212 J	<0.000128	<0.000116	<0.000192
	MW-29	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00158	<0.000136	<0.000129	<0.000605	0.000298 JB	<0.000128	<0.000116	<0.000192
	MW-39	Apr-18		<0.00382	0.00293	<0.00214	<0.0100	**0.144**	<0.000380	<0.000469	<0.000866	0.000668 J	<0.000379	<0.000348	<0.000453
	MW-39	Oct-18		<0.00382	0.000843 J	<0.00214	<0.0100	**0.0638**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-39	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.0314**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-39	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.0271**	<0.000380	<0.000469	<0.000866	0.000700 J	<0.000379	<0.000348	<0.000453
	MW-39	Jun-20		0.00100 J	0.000516 J	<0.000478	<0.0113	**0.0289**	<0.000136	<0.000129	<0.000605	0.000474 J	<0.000128	<0.000116 J4	<0.000192
	MW-39	Oct-20		<0.000787	0.000315 J	<0.000478	<0.0113	0.00397	<0.000136	<0.000129	<0.000605 J4	0.000500 J	<0.000128	<0.000116	<0.000192
	MW-40	Apr-17		<0.00382	0.000356 J	<0.00214	<0.0100	**0.00857**	<0.000380	<0.000469	<0.000866	0.00128	<0.000379	<0.000348	<0.000453
	MW-40	Apr-18		<0.00382	0.000376 J	0.00447 J	0.0269 J	0.000769 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-40	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.0192**	<0.000380	<0.000469	<0.000866	0.00113	<0.000379	<0.000348	<0.000453
	MW-40	Jun-20		<0.000787	0.000184 J	<0.000478	<0.0113	0.000284 J	<0.000136	<0.000129	<0.000605	0.000625 J	<0.000128	<0.000116	<0.000192
	MW-41	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	0.00339	<0.000380	<0.000469	<0.000866 J4	0.000318 J	<0.000379	<0.000348	<0.000453
	MW-41	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000311 J	<0.000379	<0.000348	<0.000453
	MW-41	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.00758**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-41	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	**0.0173**	<0.000136	<0.000129	<0.000605	0.000737 J	<0.000128	<0.000116	<0.000192
	MW-42	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	**0.0240**	<0.000380	<0.000469	<0.000866 J4	<0.000275	<0.000379	<0.000348	<0.000453
	MW-42	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	**0.0488**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-42	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	**0.164**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-42	Jun-20		<0.00394	<0.000600	<0.00239	<0.0565	**0.109**	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-43	Apr-18		<0.191	<0.0175	<0.107	<0.500	**38.5**	<0.0190	<0.0234	<0.0433	0.0177 J	<0.0190	<0.0174	<0.0226
	MW-43	Oct-18		<0.191	<0.0175	<0.107	<0.500	**10.7**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-43	Apr-19		<0.764	<0.0700	<0.428	<2.00	**6.22**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906
	MW-43	Oct-19		<0.764	<0.0700	<0.428	<2.00	**5.74**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906
	MW-43	Jun-20		<0.0157	0.00337 J	<0.00956	<0.226	**3.09**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232 J4	<0.00384
	MW-43	Oct-20		<0.0394	<0.00600	<0.0239	<0.565	**9.06**	<0.00680	<0.00645	<0.0303	<0.00481	<0.00640	<0.00580	<0.00960
	MW-59	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	0.00218	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-59	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	0.00105	<0.000380	<0.000469	<0.000866	0.000371 J	<0.000379	<0.000348	<0.000453
	MW-59	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	0.000519 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-59	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00112	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-60	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	0.00261	<0.000380	<0.000469	<0.000866	0.000496 J	<0.000379	<0.000348	<0.000453
	MW-60	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	0.00176	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-60	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	**0.0265**	<0.000380	<0.000469	<0.000866	0.000588 J	<0.000379	<0.000348	<0.000453
	MW-60	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	**0.0277**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-60	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	0.00434	<0.000380	<0.000469	<0.000866	0.000833 J	<0.000379	<0.000348	<0.000453
	MW-60	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100 J4	0.00207	<0.000380	<0.000469	<0.000866	0.000573 J	<0.000379	<0.000348	<0.000453
	MW-60	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	0.000658 J	<0.000380	<0.000469	<0.000866	0.00127	<0.000379	<0.000348	<0.000453
	MW-60	Oct-19	FD	<0.00382	<0.000350	<0.00214	<0.0100	0.000602 J	<0.000380	<0.000469	<0.000866	0.00168 B	<0.000379	<0.000348	<0.000453
	MW-60	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00187	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-60	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	0.00390	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-60	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00231	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-60	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	0.00279 B	<0.000136	<0.000129	<0.000605	0.000755 JB	<0.000128	<0.000116	<0.000192
	MW-61	Apr-18		<0.191	<0.0175	<0.107	<0.500	**1.36**	<0.0190	<0.0234	<0.0433	0.0187 J	<0.0190	<0.0174	<0.0226
	MW-61	Oct-18		<0.191	<0.0175	<0.107	<0.500	**1.52**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226 J4
	MW-61	Apr-19		<0.191	<0.0175	<0.107	<0.500 J4	**1.59**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-61	Oct-19		<0.191	<0.0175	<0.107	<0.500	**0.835**	<0.0190	<0.0235	<0.0433	0.0511	<0.0190	<0.0174	<0.0227
	MW-61	Jun-20		<0.0394	<0.00600	<0.0239	<0.565	**1.60**	<0.00680	<0.00645	<0.0303	<0.00481	<0.00640	<0.00580	<0.00960
	MW-61	Oct-20		<0.0394	0.00659 J	<0.0239	<0.565	**1.60**	<0.00680	<0.00645	<0.0303	0.00858 J	<0.00640	<0.00580	<0.00960

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup													
North Refinery	MW-62	Apr-18		<0.382	<0.0350	<0.214	<1.00	**1.59**	<0.0380	<0.0469	<0.0866	0.0289 J	<0.0379	<0.0348	<0.0453	
	MW-62	Oct-18		<0.382	<0.0350	<0.214	<1.00	**1.54**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453	J4
	MW-62	Apr-19		<0.0764	<0.00700	<0.0428	<0.200	**1.87**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906	
	MW-62	Oct-19		<0.0764	<0.00700	<0.0428	<0.200	**1.77**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906	
	MW-62	Jun-20		<0.0157	<0.00240	<0.00956	<0.226	**1.09**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384	
	MW-62	Oct-20		<0.0157	0.00397 J	<0.00956	<0.226	**1.24**	<0.00272	<0.00258	<0.0121	0.00520 J	<0.00256	<0.00232	<0.00384	
	MW-62R	Oct-20		<0.000787	0.00274	<0.000478	<0.0113	**1.92**	<0.000136	<0.000129	<0.000605	0.00126	<0.000128	<0.000116	<0.000192	
	MW-67	Oct-17		<0.00382	0.000487 J	<0.00214	<0.0100	**0.130**	<0.000380	<0.000469	<0.000866	0.000547 J	<0.000379	<0.000348	<0.000453	
	MW-67	Apr-18		<0.0191	0.00191 J	<0.0107	<0.0500	**0.147**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226	
	MW-67	Oct-18		<0.00382	0.000513 J	<0.00214	<0.0100	0.00480	<0.000380	<0.000469	<0.000866	0.000465 J	<0.000379	<0.000348	<0.000453	
	MW-67	Apr-19		<0.0191	<0.00175	<0.0107	<0.0500	**0.122**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226	
	MW-90	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	0.000758 J	<0.000380	<0.000469	<0.000866	0.000427 J	<0.000379	<0.000348	<0.000453	
	MW-90	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	0.00103	<0.000380	<0.000469	<0.000866	0.000349 J	<0.000379	<0.000348	<0.000453	
	MW-90	Apr-19		<0.00382	0.00153	<0.00214	<0.0100	0.00125	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-90	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	0.00267	<0.000380	<0.000469	<0.000866	0.00139	<0.000379	<0.000348	<0.000453	
	MW-90	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00305	<0.000136	<0.000129	<0.000605	0.000600 J	<0.000128	<0.000116	<0.000192	
	MW-90	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00334	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
	MW-91	Apr-18		<0.382	<0.0350	<0.214	<1.00	**2.41**	<0.0380	<0.0469	<0.0866	0.0336 J	<0.0379	<0.0348	<0.0453	
	MW-91	Oct-18		<0.382	<0.0350	<0.214	<1.00	**2.86**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453	
	MW-91	Apr-19		<0.382	<0.0350	<0.214	<1.00	**2.89**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453	
	MW-91	Oct-19		<0.382	<0.0350	<0.214	<1.00	**4.07**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453	
	MW-91	Jun-20		<0.0787	<0.0120	<0.0478	<1.13	**4.12**	<0.0136	<0.0129	<0.0605	0.0254 J	<0.0128	<0.0116	<0.0192	
	MW-92	Apr-16		<0.00382	0.00344	<0.00214	<0.0100	**2.87**	<0.000380	<0.000469	<0.000866	0.000589 J	<0.000379	<0.000348	<0.000453	
	MW-92	Oct-16		<0.0764	<0.00700	<0.0428	<0.200 J3	**2.05**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906	
	MW-93	Apr-17		<0.0955	<0.00875	<0.0535	<0.250	**0.633**	<0.00950	<0.0117	<0.0216 J4	<0.00688	<0.00948	<0.00870	<0.0113	
	MW-93	Apr-18		<0.00382	0.00268	<0.00214	<0.0100	**0.857**	<0.000380	<0.000469	<0.000866	0.00180	<0.000379	<0.000348	<0.000453	
	MW-93	Apr-19		<0.00382	0.00345	<0.00214	<0.0100	**0.673**	<0.000380	<0.000469	<0.000866	0.00136	<0.000379	<0.000348	<0.000453	
	MW-93	Jun-20		<0.0157	<0.00240	<0.00956	<0.226	**1.21**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384	
	MW-94	Oct-15		<0.0382	0.0301	<0.0214	<0.100	**0.339**	<0.00380	<0.00469	<0.00866	0.00445 J	<0.00379	<0.00348	<0.00453	
	MW-94	Apr-16		<0.191	<0.0175	<0.107	<0.500	**0.417**	<0.0190	<0.0234	<0.0433	0.0155 J	<0.0190	<0.0174	<0.0226	
	MW-94	Oct-16		<0.0191	0.0163	<0.0107	<0.0500 J3	**0.297**	<0.00190	<0.00234	<0.00433	0.00479 J	<0.00190	<0.00174	<0.00226	
	MW-94	Apr-17		<0.0955	0.0477	<0.0535	<0.250	**0.284**	<0.00950	<0.0117	<0.0216 J4	0.0101 J	<0.00948	<0.00870	<0.0113	
	MW-95	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-95	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	J4
	MW-95	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-95	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000603 J	<0.000136	<0.000129	<0.000605	0.000192 J	<0.000128	<0.000116	<0.000192	
	MW-96	Apr-18		<0.191	<0.0175	<0.107	<0.500	<0.0166	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226	
	MW-96	Oct-18		<3.82	<0.350	<2.14	<10.0	<0.331	<0.380	<0.469	<0.866	<0.275	<0.379	<0.348	<0.453	
	MW-96	Apr-19		<0.191	<0.0175	<0.107	<0.500	<0.0166	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226	
	MW-96	Oct-19		<0.191	<0.0175	<0.107	<0.500	<0.0166	<0.0190	<0.0235	<0.0433	0.0430 JB	<0.0190	<0.0174	<0.0227	
	MW-96	Jun-20		<0.197	<0.0300	<0.120	<2.82	<0.0235	<0.0340	<0.0323	<0.151	<0.0241	<0.0320	<0.0290	<0.0480	
	MW-96	Oct-20		<0.197	<0.0300	<0.120	<2.82	**0.0424 J**	<0.0340	<0.0323	<0.151	<0.0241	<0.0320	<0.0290	<0.0480	
	MW-98	Apr-18		<0.191	<0.0175	<0.107	<0.500	**3.17**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226	
	MW-98	Oct-18		<0.191	<0.0175	<0.107	<0.500	**2.64**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226	
	MW-98	Apr-19		<0.191	<0.0175	<0.107	<0.500	**2.69**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226	
	MW-98	Oct-19		<0.191	0.0216 J	<0.107	<0.500	**1.88**	<0.0190	<0.0235	<0.0433	<0.0138	<0.0190	<0.0174	<0.0227	
	MW-98	Jun-20		0.0414 J	0.00660 J	<0.0239	<0.565	**1.74**	<0.00680	<0.00645	<0.0303	0.0181 J	<0.00640	<0.00580 J4	<0.00960	
	MW-98	Oct-20		<0.0394	0.0145 J	<0.0239	<0.565	**1.73**	<0.00680	<0.00645	<0.0303	0.0133 J	<0.00640	<0.00580	<0.00960	
	MW-137	Oct-17		<0.764	<0.0700	<0.428	<2.00	**12.5**	<0.0760	<0.0938	<0.173	0.0615 J	<0.0758	<0.0696	<0.0906	
	MW-137	Apr-18		<0.764	<0.0700	<0.428	<2.00	**9.63**	<0.0760	<0.0938	<0.173	0.0554 J	<0.0758	<0.0696	<0.0906	
	MW-137	Oct-18		<0.764	<0.0700	<0.428	<2.00	**10.6**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906	
	MW-137	Apr-19		<0.764	<0.0700	<0.428	<2.00	**7.93**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906	
	MW-138	Oct-17		<0.0191	<0.00175	<0.0107	<0.0500	**0.701**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226	
	MW-138	Apr-18		<0.0191	<0.00175	<0.0107	<0.0500	**0.741**	<0.00190	<0.00234	<0.00433	0.00176 J	<0.00190	<0.00174	<0.00226	
	MW-138	Oct-18		<0.0191	0.00303 J	<0.0107	<0.0500	**0.628**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226	
	MW-138	Apr-19		<0.0191	0.00509	<0.0107	<0.0500	**0.663**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226	
	RW-1R	Apr-16		<0.00382	<0.000350	<0.00214	<0.0100	**0.426**	<0.000380	<0.000469	<0.000866	0.000422 J	<0.000379	<0.000348	<0.000453	
	RW-1	Apr-17		<0.0382	<0.00350	<0.0214	<0.100	**0.696**	<0.00380	<0.00469	<0.00866	0.00277 J	<0.00379	<0.00348	<0.00453	
	RW-1	Apr-18		<0.00382	0.00204	<0.00214	<0.0100	**1.52**	<0.000380	<0.000469	<0.000866	0.00134	<0.000379	<0.000348	<0.000453	
	RW-1	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.00151	<0.000379	<0.000348	<0.000453	
	RW-2	Apr-15		<0.0380 UJ	0.00554 J	<0.0210	0.334 J	**5.34**	<0.00380	<0.00470 UJ	<0.00870	0.00899 J	<0.00380	<0.00350	<0.00450	
	RW-2R	Apr-16		<0.191	<0.0175	<0.107	<0.500	**5.86**	<0.0190	<0.0234	<0.0433	0.0186 J	<0.0190	<0.0174	<0.0226	
	RW-2	Apr-17		<0.191	<0.0175	<0.107	<0.500	**7.78**	<0.0190	<0.0234	<0.0433 J4	<0.0138	<0.0190	<0.0174	<0.0226	
	RW-2	Apr-18		<0.00382	0.00776	<0.00214	<0.0100	**4.68**	<0.000380	<0.000469	<0.000866	0.00224	<0.000379	<0.000348	<0.000453	
	RW-7	Apr-17		<0.00382	<0.000350	<0.00214	0.0100 J	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-7	Apr-18		<0.00382	0.000872 J	<0.00214	<0.0100	**0.0319**	<0.000380	<0.000469	<0.000866	0.000556 J	<0.000379	<0.000348	<0.000453	J4
	RW-7	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.0114**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-7	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.00487	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
	RW-8	Apr-15		<0.0380	<0.00350	<0.0210	<0.100	**0.0412**	<0.00380	<0.00470	<0.00870	<0.00280	<0.00380	<0.00350	<0.00450	
	RW-8	Apr-17		<0.00382	0.00735	<0.00214	<0.0100	**0.0718**	<0.000380	<0.000469	<0.000866	0.00138	<0.000379	<0.000348	<0.000453	
	RW-9	Apr-17		<0.00382	0.000668 J	<0.00214	<0.0100	**0.290**	<0.000380	<0.000469	<0.000866	0.00177	<0.000379	<0.000348	<0.000453	
	RW-9	Apr-18		<0.00382	0.000962 J	<0.00214	0.0433 J	**0.243**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-9	Apr-19		<0.00382	0.000940 J	<0.00214	<0.0100	**0.0968**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-9	Jun-20		<0.000787	0.000410 J	<0.000478	<0.0113	0.000141 J	<0.000136	<0.000129	<0.000605	0.000553 J	<0.000128	<0.000116	<0.000192	
	RW-10	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.000571 J	<0.000379	<0.000348	<0.000453	
	RW-10	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-10	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-10	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000205 J	<0.000136	<0.000129	<0.000605	0.000318 J	<0.000128	<0.000116	J4	<0.000192
	RW-16B	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	J4	<0.000275	<0.000379	<0.000348	<0.000453
	RW-16B	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	J4
	RW-16B	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-16B	Jun-20		0.00117 J	<0.000120	<0.000478	0.0228 J	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
	RW-17A	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-17A	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-17A	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	0.000850 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	RW-17A	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
North RO Field	MW-117	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-117	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-117	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-117	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-117	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
	MW-117	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192	
	MW-118	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-118	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-118	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-118	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453	
	MW-118	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192	
	MW-118	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192	

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
				CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	Well ID	Date	Dup													
North RO Field	MW-119	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-119	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-119	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-119	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-119	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-119	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
South Refinery	KWB-2R	Apr-17			<0.00382	<0.000350	<0.00214	<0.0100	**0.0260**	<0.000380	<0.000469	<0.000866	0.000332 J	<0.000379	<0.000348	<0.000453
	KWB-2R	Oct-17			<0.00382	0.00198	<0.00214	<0.0100	**1.12**	<0.000380	<0.000469	<0.000866	0.000367 J	<0.000379	<0.000348	<0.000453
	KWB-2R	Apr-19			<0.00382	0.00160	<0.00214	<0.0100	**0.177**	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-2R	Oct-19			<0.00382	0.00115	<0.00214	<0.0100	**0.920**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-5	Oct-17			<0.00382	<0.000350	<0.00214	<0.0100	**0.336**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-5	Apr-18			<0.955	<0.0875	<0.535	<2.50	**0.411**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113
	KWB-5	Oct-18			<0.955	<0.0875	<0.535	<2.50	**0.278**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113 J4
	KWB-5	Apr-19			<0.955	<0.0875	<0.535	<2.50	**0.425**	<0.0950	<0.117	<0.216 J3	<0.0688	<0.0948	<0.0870	<0.113
	KWB-6	Apr-17			<0.0191	0.00450 J	<0.0107	<0.0500	**4.67**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	KWB-6	Oct-17			<0.00382	0.00825	<0.00214	<0.0100	**3.22**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	KWB-6	Apr-18			<0.0764	0.00807 J	<0.0428	<0.200	**3.88**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	KWB-6	Oct-18			<0.0764	0.00755 J	<0.0428	<0.200 J3	**2.64**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-28	Apr-18			<0.191	<0.0175	<0.107	<0.500	**0.959**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-28	Oct-18			<0.0764	<0.00700	<0.0428	<0.200	**0.356**	<0.00760	<0.00938	<0.0173	0.00753 J	<0.00758	<0.00696	<0.00906
	MW-28	Apr-19			<0.191	<0.0175	<0.107	<0.500 J4	**1.43**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-28	Oct-19			<0.191	<0.0175	<0.107	<0.500	**1.51**	<0.0190	<0.0235	<0.0433	0.0372 J	<0.0190	<0.0174	<0.0227
	MW-28	Jun-20			<0.00394	0.00154 J	<0.00239	<0.0565	**0.397**	<0.000680	<0.000645	<0.00303	0.000607 J	<0.000640	<0.000580 J4	<0.000960
	MW-28	Oct-20			<0.00394	0.00110 J	<0.00239	<0.0565	**0.362**	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-48	Apr-18			<0.955	<0.0875	<0.535	<2.50	**14.9**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113
	MW-48	Oct-18			<0.955	<0.0875	<0.535	<2.50 J3	**7.97**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113
	MW-48	Apr-19			<0.955	<0.0875	<0.535	<2.50	**4.87**	<0.0950	<0.117	<0.216 J3	<0.0688	<0.0948	<0.0870	<0.113
	MW-48	Oct-19			<0.955	<0.0875	<0.535	<2.50	**5.04**	<0.0950	<0.117	<0.217	<0.0688	<0.0948	<0.0870	<0.113
	MW-50	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-50	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-50	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-50	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-50	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-50	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605 J4	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-52	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-52	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-52	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-52	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-52	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000318 JB	<0.000128	<0.000116	<0.000192
	MW-52	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-64	Apr-18			<0.0764	<0.00700	<0.0428	<0.200	**2.37**	<0.00760	<0.00938	<0.0173	0.00554 J	<0.00758	<0.00696	<0.00906
	MW-64	Oct-18			<0.0764	0.00781 J	<0.0428	<0.200	**38.6**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906 J4
	MW-64	Apr-19			<0.0764	<0.00700	<0.0428	<0.200	**33.6**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-64	Oct-19			<0.0955	<0.00875	<0.0535	<0.250	**35.7**	<0.00950	<0.0117	<0.0217	<0.00688	<0.00948	<0.00870	<0.0113
	MW-64	Jun-20			<0.394	<0.0600	<0.239	<5.65	**27.5**	<0.0680	<0.0645	<0.303	<0.0481	<0.0640	<0.0580 J4	<0.0960
	MW-64	Oct-20			<0.394	<0.0600	<0.239	<5.65	**27.2**	<0.0680	<0.0645	<0.303	<0.0481	<0.0640	<0.0580	<0.0960
	MW-65	Apr-18			<0.382	<0.0350	<0.214	<1.00	**4.39**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-65	Oct-18			<0.382	<0.0350	<0.214	<1.00	**2.84**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453 J4
	MW-65	Apr-19			<0.382	<0.0350	<0.214	<1.00	**5.45**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-65	Oct-19			<0.382	<0.0350	<0.214	<1.00	**6.07**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-66	Apr-18			<0.0382	<0.00350	<0.0214	<0.100	**2.27**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-66	Oct-18			<0.0382	<0.00350	<0.0214	<0.100 J3	**1.95**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	MW-66	Apr-19			<0.0955	<0.00875	<0.0535	<0.250 J4	**0.916**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113
	MW-66	Oct-19			<0.0955	<0.00875	<0.0535	<0.250	**1.24**	<0.00950	<0.0117	<0.0217	<0.00688	<0.00948	<0.00870	<0.0113
	MW-66	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	**1.18**	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-66	Oct-20			<0.00787	<0.00120	<0.00478	<0.113	**0.965**	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	MW-99	Apr-18			<0.382	<0.0350	<0.214	<1.00	**2.15**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-99	Oct-18			<0.382	<0.0350	<0.214	<1.00 J3	**2.54**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-99	Apr-19			<0.382	<0.0350	<0.214	<1.00 J4	**1.67**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-99	Oct-19			<0.382	<0.0350	<0.214	<1.00	**0.233**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-99	Jun-20			<0.00787	0.00193 J	<0.00478	<0.113	**0.414**	<0.00136	<0.00129	<0.00605	0.0193	<0.00128	<0.00116	<0.00192
	MW-101	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	0.00149	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-101	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-101	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-101	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	0.000430 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-101	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	0.00438	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	MW-101	Oct-20			<0.000787	0.000621 J	<0.000478	<0.0113	**2.32**	<0.000136	<0.000129	<0.000605 J4	0.000718 J	<0.000128	<0.000116	<0.000192
	MW-102	Apr-18			<1.91	<0.175	<1.07	<5.00	**7.63**	<0.190	<0.234	<0.433	<0.138	<0.190	<0.174	<0.226
	MW-102	Oct-18			<1.91	<0.175	<1.07	<5.00	**12.9**	<0.190	<0.234	<0.433	<0.138	<0.190	<0.174	<0.226 J4
	MW-102	Apr-19			<0.00382	0.00528	<0.00214	<0.0100 J4	**11.0**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-102	Oct-19			<0.191	<0.0175	<0.107	<0.500	**12.3**	<0.0190	<0.0235	<0.0433	0.0260 J	<0.0190	<0.0174	<0.0227
	MW-102	Jun-20			<0.0787	<0.0120	<0.0478	<1.13	**7.10**	<0.0136	<0.0129	<0.0605	<0.00962	<0.0128	<0.0116	<0.0192
	MW-102	Oct-20			<0.0787	<0.0120	<0.0478	<1.13	**8.72**	<0.0136	<0.0129	<0.0605	<0.00962	<0.0128	<0.0116	<0.0192
	MW-103	Apr-17			<0.191	<0.0175	<0.107	<0.500	**1.30**	<0.0190	<0.0234	<0.0433	<0.0138	<0.0190	<0.0174	<0.0226
	MW-103	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	**1.75**	<0.000380	<0.000469	<0.000866	0.000406 J	<0.000379	<0.000348	<0.000453
	MW-103	Apr-19			<0.0764	<0.00700	<0.0428	<0.200	**1.39**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-103	Jun-20			<0.0157	<0.00240	<0.00956	<0.226	**1.14**	<0.00272	<0.00258	<0.0121	0.00218 J	<0.00256	<0.00232 J4	<0.00384
	MW-104	Apr-18			<0.00382	<0.000350	<0.00214	<0.0100	**0.142**	<0.000380	<0.000469	<0.000866	0.000748 J	<0.000379	<0.000348	<0.000453
	MW-104	Apr-18	FD		<0.0191	<0.00175	<0.0107	<0.0500	**0.139**	<0.00190	<0.00234	<0.00433	0.00144 J	<0.00190	<0.00174	<0.00226
	MW-104	Oct-18			<0.00382	<0.000350	<0.00214	<0.0100	**0.198**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453 J4
	MW-104	Oct-18	FD		<0.0191	<0.00175	<0.0107	<0.0500	**0.186**	<0.00190	<0.00234	<0.00433	0.00141 J	<0.00190	<0.00174	<0.00226
	MW-104	Apr-19			<0.00382	<0.000350	<0.00214	<0.0100	**0.192**	<0.000380	<0.000469	<0.000866	0.000831 J	<0.000379	<0.000348	<0.000453
	MW-104	Apr-19	FD		<0.00382	<0.000350	<0.00214	<0.0100	**0.190**	<0.000380	<0.000469	<0.000866	0.000791 J	<0.000379	<0.000348	<0.000453
	MW-104	Oct-19			<0.00382	<0.000350	<0.00214	<0.0100	**0.181**	<0.000380	<0.000469	<0.000866	0.000811 J	<0.000379	<0.000348	<0.000453
	MW-104	Oct-19	FD		<0.00382	<0.000350	<0.00214	<0.0100	**0.173**	<0.000380	<0.000469	<0.000866	0.00131 B	<0.000379	<0.000348	<0.000453
	MW-104	Jun-20			<0.000787	<0.000120	<0.000478	<0.0113	**0.0720**	<0.000136	<0.000129	<0.000605	0.000648 J	<0.000128	<0.000116 J4	<0.000192
	MW-104	Jun-20	FD		<0.000787	<0.000120	<0.000478	<0.0113	**0.0660**	<0.000136	<0.000129	<0.000605	0.000403 J	<0.000128	<0.000116 J4	<0.000192
	MW-104	Oct-20			<0.000787	<0.000120	<0.000478	<0.0113	0.00473	<0.000136	<0.000129	<0.000605 J4	0.00229	<0.000128	<0.000116	<0.000192
	MW-104	Oct-20	FD		<0.000787	<0.000120	<0.000478	<0.0113	**0.00631**	<0.000136	<0.000129	<0.000605	0.000721 J	<0.000128	<0.000116	<0.000192
	MW-105	Apr-18			<0.382	<0.0350	<0.214	<1.00	**8.04**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-105	Oct-18			<0.382	<0.0350	<0.214	<1.00	**6.29**	<0.0380	<0.0469	<0.0866	<0.0275	<0.0379	<0.0348	<0.0453
	MW-105	Apr-19			<0.00382	0.00474	0.00339 J	<0.0100 J4	**8.07**	<0.000380	<0.000469	<0.000866	0.00219	<0.000379	<0.000348	<0.000453
	MW-105	Oct-19			<0.191	<0.0175	<0.107	<0.500	**4.23**	<0.0190	<0.0235	<0.0433	0.0394 J	<0.0190	<0.0174	<0.0227
	MW-105	Jun-20			<0.0394	<0.00600	<0.0239	<0.565	**7.41**	<0.00680	<0.00645	<0.0303	<0.00481	<0.00640	<0.00580	<0.00960
	MW-105	Oct-20			<0.0394	<0.00600	<0.0239	<0.565	**11.5**	<0.00680	<0.00645	<0.0303	<0.00481	<0.00640	<0.00580	<0.00960

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds												
			Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
			CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	**Well ID**	**Date**	**Dup**												
South Refinery	MW-106	Apr-18		<0.764	<0.0700	<0.428	<2.00	**8.13**	<0.0760	<0.0938	<0.173	<0.0550	<0.0758	<0.0696	<0.0906
	MW-106	Oct-18		<1.91	<0.175	<1.07	<5.00	**11.6**	<0.190	<0.234	<0.433	<0.138	<0.190	<0.174	<0.226
	MW-106	Apr-19		<1.91	<0.175	<1.07	<5.00 J4	**5.92**	<0.190	<0.234	<0.433	<0.138	<0.190	<0.174	<0.226
	MW-106	Oct-19		<0.191	<0.0175	<0.107	<0.500	**9.61**	<0.0190	<0.0235	<0.0433	0.0343 J	<0.0190	<0.0174	<0.0227
	MW-106	Jun-20		<0.0787	<0.0120	<0.0478	<1.13	**9.39**	<0.0136	<0.0129	<0.0605	<0.00962	<0.0128	<0.0116	<0.0192
	MW-106	Oct-20		<0.157	<0.0240	<0.0956	<2.26	**14.9**	<0.0272	<0.0258	<0.121	<0.0192	<0.0256	<0.0232	<0.0384
	MW-107	Oct-16		<0.0191	<0.00175	<0.0107	<0.0500	**6.35**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	MW-107	Apr-17		<0.191	<0.0175	<0.107	<0.500	**3.37**	<0.0190	<0.0234	<0.0433 J4	<0.0138	<0.0190	<0.0174	<0.0226
	MW-107	Apr-18		<0.00382	0.000710 J	0.00375 J	<0.0100	**6.55**	<0.000380	<0.000469	<0.000866	0.000332 J	<0.000379	<0.000348	<0.000453
	MW-107	Apr-19		<0.955	<0.0875	<0.535	<2.50 J4	**6.43**	<0.0950	<0.117	<0.216	<0.0688	<0.0948	<0.0870	<0.113
	MW-109	Apr-18		<0.0764	<0.00700	<0.0428	<0.200	**1.54**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-109	Oct-18		<0.0764	<0.00700	<0.0428	<0.200 J3	**1.64**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	MW-109	Apr-19		<0.0764	<0.00700	<0.0428	<0.200	**1.03**	<0.00760	<0.00938	<0.0173 J3	<0.00550	<0.00758	<0.00696	<0.00906
	MW-109	Oct-19		<0.0191	<0.00175	<0.0107	<0.0500	**1.11**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00227
	MW-109	Jun-20		<0.00787	<0.00120	<0.00478	<0.113	**1.78**	<0.00136	<0.00129	<0.00605	0.00454 JB	<0.00128	<0.00116	<0.00192
	MW-109	Oct-20		<0.00787	<0.00120	<0.00478	<0.113	**1.11**	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	MW-110	Apr-18		<0.00382	0.00136	<0.00214	0.0253 J	**0.173**	<0.000380	<0.000469	<0.000866	0.000511 J	<0.000379	<0.000348	<0.000453
	MW-110	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-110	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	**0.0117**	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	MW-110	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	0.000530 J	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-110	Jun-20		<0.000787	0.00103	<0.000478	<0.0113	0.00152	<0.000136	<0.000129	<0.000605	0.000346 JB	<0.000128	<0.000116	<0.000192
	MW-110	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000146 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-139	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	0.00153	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-139	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000275 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	0.000626 J	<0.000192
	MW-139	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	0.000206 J	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	RA-313	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-313	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RA-313	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866 J3	<0.000275	<0.000379	<0.000348	<0.000453
	RA-313	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000433 JB	<0.000128	<0.000116	<0.000192
	RW-4	Apr-17		<0.0191	<0.00175	<0.0107	0.0509 J	**0.0294**	<0.00190	<0.00234	<0.00433 J4	0.00239 J	<0.00190	<0.00174	<0.00226
	RW-4	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	**0.00821**	<0.000380	<0.000469	<0.000866	0.000447 J	<0.000379	<0.000348	<0.000453
	RW-4	Apr-19		<0.00382	0.000386 J	<0.00214	<0.0100 J4	**0.0854**	<0.000380	<0.000469	<0.000866	0.00131	<0.000379	<0.000348	<0.000453
	RW-4	Jun-20		<0.000787	0.000341 J	<0.000478	<0.0113	**0.0184**	<0.000136	<0.000129	<0.000605	0.00108 B	<0.000128	<0.000116	<0.000192
	RW-5R	Apr-15		<0.0380	<0.00350	<0.0210	<0.100	**2.92**	<0.00380	<0.00470	<0.00870	<0.00280	<0.00380	<0.00350	<0.00450
	RW-5R	Apr-16		<0.0764	<0.00700	<0.0428	<0.200	**3.48**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	RW-6	Apr-15		<0.0380	<0.00350	<0.0210	<0.100	**0.636**	<0.00380	<0.00470	<0.00870	0.00771 J	<0.00380	<0.00350	<0.00450
	RW-6R	Apr-16		<0.00382	0.000401 J	<0.00214	<0.0100	**0.218**	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	RW-6	Apr-18		<0.00382	0.000996 J	<0.00214	<0.0100	**2.67**	<0.000380	<0.000469	<0.000866	0.000533 J	<0.000379	<0.000348	<0.000453
	RW-6	Apr-19		<0.0764	<0.00700	<0.0428	<0.200 J4	**1.18**	<0.00760	<0.00938	<0.0173	<0.00550	<0.00758	<0.00696	<0.00906
	RW-15C	Apr-17		<0.0955	<0.00875	<0.0535	<0.250	**19.1**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113
	RW-15C	Apr-18		<0.00382	0.00545	<0.00214	<0.0100	**21.9**	<0.000380	<0.000469	<0.000866	0.000650 JV3	<0.000379	<0.000348	<0.000453
	RW-15C	Apr-19		<0.0382	0.00722 J	<0.0214	<0.100	<0.00331	<0.00380	<0.00469	<0.00866 J3	<0.00275	<0.00379	<0.00348	<0.00453
South RO Field	MW-114	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-114	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-114	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-114	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-114	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-114	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-115	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-115	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100 J3	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-115	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-115	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-115	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-115	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-116	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-116	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-116	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	0.000412 J	<0.000379	<0.000348	<0.000453
	MW-116	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-116	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-116	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
TEL	MW-49	Apr-18		<0.0382	<0.00350	<0.0214	<0.100	**0.542**	<0.00380	<0.00469	<0.00866	0.00351 J	<0.00379	<0.00348	<0.00453
	MW-49	Oct-18		<0.0191	0.00239 J	<0.0107	<0.0500	**0.451**	<0.00190	<0.00234	<0.00433	0.00567	<0.00190	<0.00174	<0.00226
	MW-49	Apr-19		<0.0191	0.00223 J	<0.0107	<0.0500	**0.400**	<0.00190	<0.00234	<0.00433	0.00256 J	<0.00190	<0.00174	<0.00226
	MW-49	Oct-19		<0.0191	<0.00175	<0.0107	<0.0500	**0.576**	<0.00190	<0.00234	<0.00433	0.00330 J	<0.00190	<0.00174	<0.00227
	MW-49	Jun-20		<0.0157	0.00264 J	<0.00956	<0.226	**0.600**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384
	MW-49	Oct-20		<0.0157	<0.00240	<0.00956	<0.226	**0.404**	<0.00272	<0.00258	<0.0121	<0.00192	<0.00256	<0.00232	<0.00384
	TEL-1	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	TEL-1	Oct-18		<0.0191	<0.00175	<0.0107	<0.0500	<0.00166	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190	<0.00174	<0.00226
	TEL-1	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	0.00214	<0.000379	<0.000348	<0.000453
	TEL-1	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	0.00114 B	<0.000379	<0.000348	<0.000453
	TEL-1	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	TEL-2	Apr-18		<0.0382	<0.00350	<0.0214	<0.100	**0.619**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379	<0.00348	<0.00453
	TEL-2	Oct-18		<0.0955	<0.00875	<0.0535	<0.250	**0.936**	<0.00950	<0.0117	<0.0216	<0.00688	<0.00948	<0.00870	<0.0113
	TEL-2	Apr-19		<0.0382	<0.00350	<0.0214	<0.100 J4	**1.08**	<0.00380	<0.00469	<0.00866	0.0474	<0.00379	<0.00348	<0.00453
	TEL-2	Oct-19		<0.0382	<0.00350	<0.0214	<0.100	**0.618**	<0.00380	<0.00469	<0.00866	<0.00275	<0.00379 J4	<0.00348	<0.00453
	TEL-2	Jun-20		<0.00787	<0.00120	<0.00478	<0.113	**0.362**	<0.00136	<0.00129	<0.00605	<0.000962	<0.00128	<0.00116	<0.00192
	TEL-3	Apr-18		<0.00382	0.000823 J	<0.00214	<0.0100	**0.392**	<0.000380	<0.000469	<0.000866	0.00114	<0.000379	<0.000348	<0.000453
	TEL-3	Apr-19		<0.00382	0.000906 J	<0.00214	<0.0100 J4	**0.162**	<0.000380	<0.000469	<0.000866	0.00181	<0.000379	<0.000348	<0.000453
	TEL-3	Oct-19		<0.00382	0.000861 J	<0.00214	<0.0100	**0.0573**	<0.000380	<0.000469	<0.000866	0.00279 B	<0.000379	<0.000348	<0.000453
	TEL-3	Oct-20		<0.000787	0.00180	<0.000478	<0.0113	**0.182**	<0.000136	<0.000129	<0.000605 J4	0.00307	<0.000128	<0.000116	<0.000192
	TEL-4	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	**0.0415**	<0.000380	<0.000469	<0.000866	0.000526 J	<0.000379	<0.000348	<0.000453
	TEL-4	Apr-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	**0.0405**	<0.000380	<0.000469	<0.000866	0.000293 J	<0.000379	<0.000348	<0.000453
	TEL-4	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	0.00285	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	TEL-4	Oct-18	FD	<0.00382	<0.000350	<0.00214	<0.0100	0.00289	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	TEL-4	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	0.00190	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	TEL-4	Apr-19	FD	<0.00382	<0.000350	<0.00214	<0.0100 J4	0.00193	<0.000380	<0.000469	<0.000866	0.00219	<0.000379	<0.000348	<0.000453
	TEL-4	Oct-19		<0.0191	<0.00175	<0.0107	<0.0500	**0.0913**	<0.00190	<0.00234	<0.00433	<0.00138	<0.00190 J4	<0.00174	<0.00227
	TEL-4	Oct-19	FD	<0.00382	0.00239	<0.00214	<0.0100	**0.0955**	<0.000380	<0.000469	<0.000866	0.000507 J	<0.000379	<0.000348	<0.000453
	TEL-4	Jun-20		<0.00394	<0.000600	<0.00239	<0.0565	**0.00721**	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	TEL-4	Jun-20	FD	<0.000787	<0.000120	<0.000478	<0.0113	**0.00759**	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	TEL-4	Oct-20		<0.00394	<0.000600	<0.00239	<0.0565	0.00154 J	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	TEL-4	Oct-20	FD	<0.000787	<0.000120	<0.000478	<0.0113 J3	0.00133	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
TMD	MW-8	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-8	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-8	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-8	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-16	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-16	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-16	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-16	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds											
		Analyte:	2-Hexanone (Methyl N-Butyl Ketone)	4-Isopropyl-toluene (p-Cymene)	4-Methyl-2-pentanone	Acetone	Benzene	Bromo-dichloro-methane	Bromoform (Tribromo-methane)	Bromo-methane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:	---	---	1.24	14.1	0.00500	0.0800	---	0.00754	0.810	0.00500	0.100	20.9
		CGWSL Source:	---	---	NMED TW	TMED TW	WQCC HH	USEPA MCL	---	NMED TW	NMED TW	WQCC HH	USEPA MCL	NMED TW
Area	**Well ID**	**Date**	**Dup**											
TMD	MW-20	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-20	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-20	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-20	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-21	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-21	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-21	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-21	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-21	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-21	Oct-20		<0.00394	<0.000600	<0.00239	<0.0565	<0.000471	<0.000680	<0.000645	<0.00303	<0.000481	<0.000640	<0.000580	<0.000960
	MW-25	Apr-17		<0.00382 J3J4	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-25	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-25	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-25	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-26	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-26	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-26	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-26	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-27	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-27	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-27	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-27	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-46R	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-46R	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-46R	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-46R	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-46R	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	0.000120 J	<0.000128	<0.000116	<0.000192
	MW-46R	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-68	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-68	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-68	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-68	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-71	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-71	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-71	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-71	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	MW-89	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-89	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-89	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100 J4	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	MW-89	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NP-1	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-1	Oct-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-1	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-1	Oct-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-1	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NP-1	Oct-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116	<0.000192
	NP-6	Apr-13		<0.0100	<0.00500	<0.0100	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500
	NP-6	Apr-15		<0.00380 UJ	<0.000350	<0.00210	<0.0100	<0.000330	<0.000380	<0.000470 UJ	<0.000870	0.00376	<0.000380	<0.000350	<0.000450
	NP-6	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	NP-6	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
Upgradient	UG-1	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-1	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-1	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-1	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	UG-2	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-2	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-2	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-2	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	UG-3R	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-3R	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-3R	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-3R	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192
	UG-4	Apr-17		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-4	Apr-18		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-4	Apr-19		<0.00382	<0.000350	<0.00214	<0.0100	<0.000331	<0.000380	<0.000469	<0.000866	<0.000275	<0.000379	<0.000348	<0.000453
	UG-4	Jun-20		<0.000787	<0.000120	<0.000478	<0.0113	<0.0000941	<0.000136	<0.000129	<0.000605	<0.0000962	<0.000128	<0.000116 J4	<0.000192

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**												
Cross-Gradient	KWB-13	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-13	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-13	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000387 J	0.000789 J	<0.000367	<0.00100	0.00236 JJ4
	KWB-13	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	0.000234 J	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-136	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-136	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-136	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-136	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-136	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-136	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000122 J	<0.000430	<0.00100
	NP-5	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	NP-5	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	NP-5	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NP-5	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-3156	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-3156	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-3156	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	RA-3156	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
Evaporation Ponds	MW-1R	Apr-17		<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-1R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-1R	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-1R	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-2A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-2A	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-2A	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500 J3
	MW-2A	Oct-19		<0.000324	<0.000276 J3	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-2A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-2A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-3	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-3	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00132	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-3	Jun-20		<0.00278	<0.0240	<0.00315	<0.00278	<0.00350	<0.00343	<0.00263	<0.0107	<0.00253	**0.0181 J**	<0.0250
	MW-3	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000341 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-3	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000139 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-3	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000169 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-4A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00352	0.00266	<0.000367	<0.00100	<0.00100
	MW-4A	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.00451 J	<0.00360	<0.00184	<0.00500	<0.00500
	MW-4A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00233	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-4A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00175	0.000959 J	<0.000367	<0.00100	<0.00100
	MW-4A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00134	0.000627 J	0.000195 J	<0.000430	<0.00100
	MW-4A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00191	0.00214	0.000244 J	<0.000430	<0.00100
	MW-4B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-4B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	0.000462 J	0.000845 J	<0.000720	<0.000370	<0.00100	<0.00100
	MW-4B	Apr-17		<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	0.000727 J	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-4B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000395 J	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-5A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000503 J	<0.000719	0.00147	<0.00100	<0.00100
	MW-5A	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.00181 J	<0.00360	<0.00184	<0.00500	<0.00500
	MW-5A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00129	<0.00100	<0.00100 J3
	MW-5A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00143	<0.00100	<0.00100
	MW-5A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000800 J	<0.000430	0.000812 J	<0.000430	<0.00100
	MW-5A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000616 J	<0.000430	0.00142	<0.000430	<0.00100
	MW-5B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-5B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	0.00148	<0.00100	<0.00100
	MW-5B	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00140	<0.00100	<0.00100
	MW-5B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000981 J	<0.00100	<0.00100 J3
	MW-5C	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-5C	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	0.000507 J	<0.00100	<0.00100
	MW-5C	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000369 J	<0.00100	<0.00100
	MW-5C	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-6A	Apr-17		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	<0.00326	<0.00719	<0.00367	<0.0100	<0.0100
	MW-6A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00117	0.000931 J	0.00167 J	<0.000367	<0.00100	<0.00100
	MW-6A	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00197 J	<0.00163	0.00413 J	<0.00184	<0.00500	<0.00500 J3
	MW-6A	Jun-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	0.000927 J	<0.000525	<0.00215	<0.000505	**0.0101 J**	<0.00500
	MW-6B	Mar-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-6B	Mar-13	FD	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-6B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	MW-6B	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-6B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-7A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00130	<0.00100	<0.00100
	MW-7A	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00191	<0.00100	<0.00100
	MW-7A	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-7A	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00191	<0.00100	<0.00100
	MW-7A	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-7A	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00148	<0.00100	<0.00100
	MW-7A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00122	<0.00100	<0.00100 J3
	MW-7A	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00161	<0.00100	<0.00100
	MW-7A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00137	<0.00100	<0.00100
	MW-7A	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00154	<0.00100	<0.00100
	MW-7A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000858 J	<0.000430	<0.00100
	MW-7A	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00113	<0.000430	<0.00100
	MW-7A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000957 J	<0.000430	<0.00100
	MW-7A	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000984 J	<0.000430	<0.00100
	MW-7B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-7B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	MW-7B	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-7B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-10	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00141	<0.00100	<0.00100
	MW-10	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-10	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.00170	<0.00100	<0.00100
	MW-10	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00147	<0.00100	<0.00100
	MW-10	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00136	<0.000430	<0.00100
	MW-10	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00136	<0.000430	<0.00100
	MW-11A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-11A	Oct-18												
	MW-11A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-11A	Oct-19												
	MW-11A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-11A	Oct-20												

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	Well ID	Date	Dup												
Evaporation Ponds	MW-11B	Mar-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-11B	Apr-15			<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	MW-11B	Apr-17			<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-11B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-15	Apr-17			<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.000373 J	<0.00100	<0.00100 J4
	MW-15	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000836 J	<0.00100	<0.00100
	MW-15	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000549 J	<0.00100	<0.00100
	MW-15	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-18A	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000589 J	<0.00100	<0.00100
	MW-18A	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000566 J	<0.00100	<0.00100
	MW-18A	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000600 J	<0.00100	<0.00100
	MW-18A	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000793 J	<0.00100	<0.00100
	MW-18A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000734 J	<0.000430	<0.00100
	MW-18A	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000678 J	<0.000430	<0.00100
	MW-18B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-18B	Apr-15			<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	MW-18B	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-18B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-22A	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00458	<0.00100	<0.00100
	MW-22A	Apr-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00580	<0.00100	<0.00100
	MW-22A	Oct-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	0.00351 J	<0.00500	<0.00500
	MW-22A	Oct-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00446	<0.00100	<0.00100
	MW-22A	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.00438	<0.00100	<0.00100
	MW-22A	Apr-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00409	<0.00100	<0.00100
	MW-22A	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000923 J	<0.00100	<0.00100
	MW-22A	Oct-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00103	<0.00100	<0.00100
	MW-22A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00242	<0.000430	<0.00100
	MW-22A	Jun-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00254	<0.000430	<0.00100
	MW-22A	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00286	<0.000430	<0.00100
	MW-22A	Oct-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00273	<0.000430	<0.00100
	MW-22B	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	0.00650	<0.0100	<0.00500
	MW-22B	Apr-15			<0.000320 UJ	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	0.00634	<0.00100	<0.00100
	MW-22B	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00564	<0.00100	<0.00100
	MW-22B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.00582	<0.00100	<0.00100
	MW-70	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-70	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-70	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-70	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-70	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000119 J	<0.000430	<0.00100
	MW-70	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000124 J	<0.000430	<0.00100
	MW-72	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-72	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-72	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-72	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-73	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00120	<0.00100	<0.00100 J4
	MW-73	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-73	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.000992 J	<0.00100	<0.00100
	MW-73	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00105	<0.000430	<0.00100
	MW-74	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000608 J	<0.00100	<0.00100
	MW-74	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-74	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-74	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000725 J	<0.00100	<0.00100
	MW-74	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000294 J	<0.000430	<0.00100
	MW-74	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000761 J	<0.000430	<0.00100
	MW-75	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000617 J	<0.000719	0.00467	<0.00100	<0.00100
	MW-75	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0106	<0.000719	0.00276	<0.00100	<0.00100
	MW-75	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	0.000547 J	<0.000719	0.00644	<0.00100	<0.00100
	MW-75	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00777	<0.000719	0.00232	<0.00100	<0.00100
	MW-75	Jun-20			<0.00278	<0.0240	<0.00315	<0.00278	<0.00350	<0.00343	0.00352 J	<0.0107	0.00263 J	<0.0107	<0.0250
	MW-75	Oct-20			<0.00278	<0.0240	<0.00315	<0.00278	<0.00350	<0.00343	0.00529 J	<0.0107	0.00583 J	<0.0107	<0.0250
	MW-76	Apr-18			<0.000324	0.000307 J	<0.000260	<0.000418	<0.000327	<0.000384	0.0130	<0.000719	0.0127	<0.00100	<0.00100
	MW-76	Oct-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.0138	<0.00360	0.0119	<0.00500	<0.00500
	MW-76	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	0.0112	<0.000719	0.0115	<0.00100	<0.00100
	MW-76	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0158	<0.000719	0.0123	<0.00100	<0.00100
	MW-76	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00915	0.000628 J	0.0111	<0.000430	<0.00100
	MW-76	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00944	<0.000430	0.00743	<0.000430	<0.00100
	MW-77	Apr-17			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	0.0207	<0.00719	0.00452 J	<0.0100	<0.0100
	MW-77	Apr-18			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	0.0131	<0.00719	<0.00367	<0.0100	<0.0100
	MW-77	Apr-19			<0.00324	<0.00276	<0.00260	<0.00418 J4	<0.00327	<0.00384	0.0145	<0.00719	0.00392 J	<0.0100	<0.0100
	MW-77	Jun-20			<0.00278	<0.0240	<0.00315	<0.00278	<0.00350	<0.00343	0.0226 J	<0.0107	<0.00253	<0.0107	<0.0250
	MW-78	Apr-17			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	<0.00326	<0.00719	<0.00367	<0.0100	<0.0100
	MW-78	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-78	Apr-19			<0.00324	<0.00276	<0.00260	<0.00418 J4	<0.00327	<0.00384	<0.00326	<0.00719	<0.00367	<0.0100	<0.0100
	MW-78	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-79	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-79	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-79	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-79	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-79	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-79	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-80	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-80	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-80	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-80	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-81	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-81	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-81	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-81	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-82	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-82	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-82	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-82	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-83	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00202	0.00258	0.000465 J	<0.00100	<0.00100
	MW-83	Oct-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.00190 J	<0.00360	<0.00184	<0.00500	<0.00500
	MW-83	Apr-19			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500 J3
	MW-83	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00249	<0.000719	<0.000367	<0.00100	<0.00100
	MW-83	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00144	<0.000430	<0.000101	<0.000430	<0.00100
	MW-83	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00263	0.00127 J	0.000649 J	<0.000430	<0.00100
	MW-84	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00124	<0.00100	<0.00100
	MW-84	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000476 J	<0.000719	0.00128	<0.00100	<0.00100
	MW-84	Apr-19			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500 J3
	MW-84	Oct-19			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-84	Jun-20			<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	0.000576 J	<0.00215	0.00112 J	<0.00215	<0.00500
	MW-84	Oct-20			<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	<0.00137	<0.00105	<0.00430	0.00104 J	<0.00430	<0.0100

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**												
Evaporation Ponds	MW-86	Jun-20		<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.0199 J	0.00509 J	0.0267 J	<0.00202	<0.00860	<0.0200
	MW-86	Oct-20		<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.0228	0.00405 J	0.0295 J	<0.00202	<0.00860	<0.0200
	MW-87	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000710 J	<0.00100	<0.00100
	MW-87	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000736 J	<0.00100	<0.00100
	MW-87	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000622 J	<0.00100	<0.00100
	MW-87	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00108	<0.00100	<0.00100
	MW-87	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000725 J	<0.000430	<0.00100
	MW-87	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000777 J	<0.000430	<0.00100
	MW-88	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-88	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-88	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-88	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-88	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-88	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-120	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-120	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-120	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500 J3
	MW-120	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-120	Jun-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	<0.000525	<0.00215	<0.000505	<0.00215	<0.00500
	MW-120	Oct-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	<0.000525	<0.00215	<0.000505	<0.00215	<0.00500
	MW-121	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-121	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-121	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	MW-121	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-121	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-121	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-122	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-122	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-122	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500 J3
	MW-122	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-122	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-122	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-123	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00122	<0.00100	<0.00100
	MW-123	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	<0.00184	<0.00500	<0.00500
	MW-123	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.00163	<0.00100	<0.00100
	MW-123	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00133	<0.00100	<0.00100
	MW-123	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00149	<0.000430	<0.00100
	MW-123	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00174	<0.000430	<0.00100
	MW-124	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-124	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-124	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-124	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-124	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-124	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-1R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-1R	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-1R	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-1R	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-1R	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-1R	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-2A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-2A	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-2A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-2A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-2A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-2A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-3	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-3	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-3	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-3	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-3	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-3	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-4	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-4	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-4	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-4	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-4	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-4	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-5	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-5	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-5	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-5	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-5	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-5	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-6	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-6	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-6	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	OCD-6	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-6	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-6	Oct-20		<0.000111	<0.000960	0.000170 JB	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	OCD-7AR	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00124	<0.00100	<0.00100
	OCD-7AR	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00139	<0.00100	<0.00100
	OCD-7AR	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000632 J	<0.00100	<0.00100 J3
	OCD-7AR	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00190	<0.00100	<0.00100
	OCD-7AR	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000944 J	<0.000430	<0.00100
	OCD-7AR	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00157	<0.000430	<0.00100
	OCD-7B	Mar-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	OCD-7B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	OCD-7B	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	OCD-7B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3
	OCD-8A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00380	<0.00100	<0.00100
	OCD-8A	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00463	<0.00100	<0.00100
	OCD-8A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00400	<0.00100	<0.00100 J3
	OCD-8A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000471 J	<0.00100	<0.00100
	OCD-8A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00275	<0.000430	<0.00100
	OCD-8A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00342	<0.000430	<0.00100
	OCD-8B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	OCD-8B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	0.00155	<0.00100	<0.00100
	OCD-8B	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000919 J	<0.00100	<0.00100
	OCD-8B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000876 J	<0.00100	<0.00100
Field East of Refinery	KWB-1A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-1A	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-1A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	KWB-1A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-1A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-1A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**												
Field East of Refinery	KWB-1C	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	KWB-1C	Apr-15			<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	KWB-1C	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-1C	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	KWB-7	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0156	0.0103	0.0132	0.00510	<0.00100	0.00350 J
	KWB-7	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00178	0.00504	0.00156 J	0.00928	<0.00100	<0.00100
	KWB-7	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00936	0.0409	0.0390	0.00932	<0.000430	0.00822
	KWB-7	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00262	0.0188	0.00249	0.00365	<0.000430	<0.00100
	KWB-8	Oct-16			<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	**0.828**	<0.0652	1.01	<0.0734	<0.200	<0.200 J4
	KWB-8	Apr-17			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	**1.24**	0.0467 J	1.92	**0.129**	<0.100	**0.141 J**
	KWB-8	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.617	0.0182	0.782	**0.134 V3**	<0.00100	**0.0519**
	KWB-8	Oct-20			<0.0222	<0.192	<0.0252	<0.0222	<0.0280	**2.89**	0.0937 J	4.05	0.0230 J	<0.0860	**0.539 J**
	KWB-10R	Apr-17			0.0172 J	<0.0138	<0.0130	<0.0209	<0.0164	0.505	0.0486 J	0.716	**3.65**	<0.0500	**0.156 J**
	KWB-10R	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.530	0.0494	0.655	**5.41**	<0.00100	**0.152**
	KWB-10R	Apr-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	0.354	<0.0815	0.457 J	**2.74**	<0.250	<0.250
	KWB-10R	Oct-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	0.238 J	<0.0815	0.217 J	**4.12**	<0.250	<0.250
	KWB-11A	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000355 J	<0.000719	0.00341	<0.00100	<0.00100
	KWB-11A	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00390	<0.000719	0.00290	<0.00100	0.00165 J
	KWB-11A	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	0.00105	<0.000719	0.00371	<0.00100	<0.00100
	KWB-11A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000576 J	0.00360	<0.000430	0.00359	<0.000430	<0.00100
	KWB-11A	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000380 J	<0.000430	0.00307	<0.000430	<0.00100
	KWB-11B	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000498 J	<0.00100	<0.00100
	KWB-11B	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00125	<0.00100	<0.00100
	KWB-11B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	0.000774 J	<0.00100	<0.00100
	KWB-11B	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00103	<0.00100	<0.00100
	KWB-11B	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00140	<0.000430	<0.00100
	KWB-11B	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00156	<0.000430	<0.00100
	KWB-12A	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12A	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-12A	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-12B	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Apr-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Oct-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Apr-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Oct-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-12B	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-12B	Jun-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-12B	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-12B	Oct-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	KWB-P4	Apr-13			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	KWB-P4	Apr-15			<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	KWB-P4	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	KWB-P4	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-57	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-57	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-57	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-57	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-57	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-57	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-58	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0965	0.0456	0.220	0.0987	<0.00100	**0.0469**
	MW-58	Apr-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**0.946**	0.0521	0.268	0.0303 J	<0.0500	**0.267**
	MW-58	Oct-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0351 J	0.0461 J	<0.0360	0.0624	<0.0500	<0.0500
	MW-58	Oct-19			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327 J4	0.634	0.0370	0.395	<0.00367	<0.0100	**0.0917**
	MW-111	Apr-18			<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	<0.00960	<0.00815	<0.0180	**1.25**	<0.0250	<0.0250
	MW-111	Oct-18			<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	<0.00960	<0.00815	<0.0180	**1.47**	<0.0250	<0.0250
	MW-111	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00258	0.00388	0.00523	**1.46**	<0.00100	0.00408 J
	MW-111	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0164	0.00148	0.00995	**1.23**	<0.00100	0.00372 J
	MW-111	Jun-20			<0.00278	<0.0240	<0.00315	<0.00278	<0.00350	0.0408	0.00406 J	0.0148 J	**1.30**	<0.0107	<0.0250
	MW-112	Nov-14			<0.00810	<0.00690	<0.00650	<0.0100	<0.00820	**0.970**	0.0570	1.40	**1.00**	<0.0250	**0.200**
	MW-113	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00604	0.000518 J	0.00849	0.0114	<0.00100	<0.00100
	MW-113	Apr-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00667	0.000449 J	0.00901	0.0120	<0.00100	<0.00100
	MW-113	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00885	0.000671 J	0.00867	0.0128	<0.00100	<0.00100
	MW-113	Oct-18	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00992	0.000612 J	0.00938	0.0100	<0.00100	0.00117 J
	MW-113	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00703	0.000860 J	0.0113	0.0112	<0.00100	0.00108 J
	MW-113	Apr-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00809	<0.000326	0.0128	0.00973	<0.00100	0.00110 J
	MW-113	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.248	0.0549	0.307	0.00823	<0.00100	**0.128**
	MW-113	Oct-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.270	0.0601	0.284	0.00809	<0.00100	**0.0986**
	MW-113	Jun-20			<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	0.00355 J	0.00158 J	0.0363	0.0129	<0.00215	<0.00500
	MW-113	Jun-20	FD		0.00490 J	<0.000960	<0.000126	<0.000111	<0.000140	0.00448	0.000915 J	0.0470	0.0104	<0.000430	0.00195 J
	MW-113	Oct-20			<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	0.129	0.0208	0.154	0.0117	<0.00215	0.0101 J
	MW-113	Oct-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.137	0.0226	0.165	0.0118	<0.000430	0.0104
	MW-125	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-125	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-125	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-125	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-125	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-125	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000155 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-126A	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-126A	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00285	<0.000719	<0.000367	<0.00100	<0.00100
	MW-126A	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-126A	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0114	0.0135	0.00569	<0.000367	<0.00100	0.00221 J
	MW-126A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	0.000248 J	<0.000430	<0.00100
	MW-126A	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000502 J	<0.000430	<0.00100
	MW-126B	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-126B	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-126B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-126B	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-126B	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-126B	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000114 J	<0.000430	<0.00100
	MW-127	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0937	0.0130	0.0445	**0.885**	<0.00100	0.00901
	MW-127	Apr-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.121	0.0160 J	0.0654	**0.623**	<0.0200	<0.0200
	MW-127	Oct-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0797	0.0180 J	0.0458	**0.774**	<0.0200	<0.0200
	MW-127	Apr-19			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.138	0.0199 J	0.0933	**0.628**	<0.0200	<0.0200 J4

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
		CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Field East of Refinery	MW-128	Oct-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00128	0.00133	0.00336	**0.785**	<0.00100	0.00142 J
	MW-128	Apr-18		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	<0.00768	<0.00652	<0.0144	**0.961**	<0.0200	**0.0422 J**
	MW-128	Oct-18		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0247	<0.00652	<0.0144	**0.963**	<0.0200	<0.0200
	MW-128	Apr-19		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0199 J	<0.00652	<0.0144	**0.765**	<0.0200	<0.0200
	MW-129	Apr-16		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.0192	0.00172	0.00199	**4.59**	<0.00100	0.00534
	MW-129	Oct-16		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000985 J	0.00144	0.00124	**4.73**	<0.00100	0.00186 JJ4
	MW-129	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000976 J	0.000737 J	**4.34**	<0.00100	0.00247 J
	MW-129	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00130	0.000687 J	0.00125 J	**5.40**	<0.00100	0.00124 J
	MW-130	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00134	<0.00100	<0.00100
	MW-130	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000976 J	<0.00100	<0.00100
	MW-130	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00131	<0.00100	<0.00100 J4
	MW-130	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00295	<0.00100	<0.00100
	MW-130	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00424	<0.000430	<0.00100
	MW-130	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00328	<0.000430	<0.00100
	MW-131	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0532	0.0206	0.0735	**3.99**	<0.00100	0.0295
	MW-131	Oct-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.0960	0.0162	<0.180	**5.25**	<0.00100	**0.0303**
	MW-131	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0255	0.00961	0.681	**4.95**	<0.00100	**0.0314**
	MW-131	Jun-20		<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.0171 J	0.00743 J	0.544	**2.91**	<0.0215	<0.0500
	MW-133	Nov-14		<0.0320	<0.0280	<0.0260	<0.0420	<0.0330	0.300	0.0570 J	0.180 J	**5.60**	<0.100	<0.100
	MW-133	Apr-15		<0.0320	<0.0280	<0.0260	<0.0420	<0.0330	0.199	<0.0330	0.108	**6.67**	<0.100	<0.100
	MW-134	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-134	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-134	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-134	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-134	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-134	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-134	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000442 J	<0.000326	<0.000719	<0.000367	<0.00100	0.00326 J
	MW-134	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00106 J	<0.000326	<0.000367	<0.00100	0.00248 J
	MW-134	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-134	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-134	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-134	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-134	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-135	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-135	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-135	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-135	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-135	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-135	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-145	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000496 J	<0.000430	<0.00100
	MW-145	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000507 J	<0.000430	<0.00100
	MW-146	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-147	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-148	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000183 J	<0.000430	<0.00100
	RA-4196	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00693	<0.00100	<0.00100
	RA-4196	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00753	<0.00100	<0.00100
	RA-4196	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00594	<0.00100	<0.00100
	RA-4196	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00709	<0.00100	<0.00100
	RA-4196	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00948	<0.000430	<0.00100
	RA-4196	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00798	<0.000430	<0.00100
	RA-4798	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-4798	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00788	<0.00100	<0.00100
	RA-4798	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-4798	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00943	<0.00100	<0.00100
	RA-4798	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.0170	<0.000430	<0.00100
	RA-4798	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00654	<0.000430	<0.00100
	RW-12R	Apr-17		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00823	0.0591	0.0239	0.00210 J	<0.00500	0.00877 J
	RW-12R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00269	0.0459	0.00648	0.00315	<0.00100	0.00130 J
	RW-12R	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00142	0.0316	0.00595	0.00341	<0.00100	<0.00100
	RW-12R	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00223	0.0303	0.00553	0.00225	<0.000430	<0.00100
	RW-13R	Apr-16		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0691	0.0117	0.0939	0.0779	<0.00100	0.0148
	RW-13R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00855	0.0177	0.0283	0.0559	<0.00100	0.00114 J
	RW-18A	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RW-18A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RW-18A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	RW-18A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	RW-20	Apr-15		<0.00320	<0.00280	<0.00260	<0.00420	<0.00330	**0.973**	0.0456	1.30	**0.209**	<0.0100	**0.183**
	RW-22	Apr-15		<0.00320	<0.00280	<0.00260	<0.00420	<0.00330	**1.09**	0.0525	0.850	**0.178**	<0.0100	**0.164**
NCL	MW-18	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-18	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-18	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-18	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000340 J	<0.000430	<0.00100 J4
	MW-45	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00506	<0.00100	<0.00100
	MW-45	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00766	<0.00100	<0.00100
	MW-45	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0108	<0.00100	<0.00100
	MW-45	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00874	<0.00100	<0.00100
	MW-45	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00634	<0.000430	<0.00100 J4
	MW-45	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.0124	<0.000430	<0.00100
	MW-53	Apr-16		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-53	Apr-17		<0.000324	<0.000276	0.000391 J	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-53	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-53	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-53R	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-54A	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-54A	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-54A	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-54A	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-54A	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-54A	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-54B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	MW-54B	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330	<0.000380	<0.000330	<0.000720	<0.000370	<0.00100	<0.00100
	MW-54B	Apr-17		<0.000324	<0.000276	0.000616 J	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-54B	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-55	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0302	<0.00100	<0.00100
	MW-55	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0604	<0.00100	<0.00100
	MW-55	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0672	<0.00100	<0.00100
	MW-55	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.106**	<0.00100	<0.00100
	MW-55	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	**0.228**	<0.000430	<0.00100
	MW-55	Oct-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	<0.00137	<0.00105	<0.00430	**0.299**	<0.00430	<0.0100
	MW-56	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0222	<0.00100	<0.00100
	MW-56	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00328	<0.00100	<0.00100
	MW-56	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00208	<0.00100	<0.00100
	MW-56	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000339 J	<0.000430	<0.00100
	MW-108	Apr-18		<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	<0.00960	0.0302	0.0646	<0.00918	<0.0250	<0.0250
	MW-108	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00532	0.0398	0.0852	<0.00184	<0.00500	<0.00500 J4
	MW-108	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00347 J	0.0409	0.0663	<0.00184	<0.00500	<0.00500
	MW-108	Oct-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00383 J	0.0344	0.0621	<0.00184	<0.00500	0.00557 J
	MW-108	Jun-20		0.00126 J	<0.00480	<0.000630	<0.000555	<0.000700	0.00278 J	0.0235	0.0403	<0.000505	<0.00215	<0.00500 J4
	MW-108	Oct-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	0.0119	0.0176	<0.000505	<0.00215	<0.00500

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds											
			Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
			CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**											
NCL	NCL-31	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-31	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000334 J	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-31	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00251	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-31	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000681 J	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-31	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000241 J	0.000205 J	0.000667 J	<0.000101	<0.000430	<0.00100 J4
	NCL-31	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000275 J	0.000108 J	0.000833 J	<0.000101	<0.000430	<0.00100
	NCL-32	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-32	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-32	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-32	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-32	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	NCL-32	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	NCL-33	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-33	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000618 J	<0.00100	<0.00100
	NCL-33	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-33	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000371 J	<0.00100	<0.00100
	NCL-33	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000208 J	<0.000430	<0.00100 J4
	NCL-33	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000230 J	<0.000430	<0.00100
	NCL-34A	Apr-18		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	0.0979	0.0390	<0.00367	<0.0100	<0.0100
	NCL-34A	Oct-18		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.00672 J	0.0828	0.0266	<0.00367	<0.0100	<0.0100
	NCL-34A	Apr-19		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	<0.00768	0.0808	<0.0144	<0.00734	<0.0200	<0.0200 J3J4
	NCL-34A	Oct-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00677	0.0824	0.0175	<0.00184	<0.00500	<0.00500
	NCL-34A	Jun-20		<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.00476 J	0.0844	0.0335 J	<0.00202	<0.00860	<0.0200 J4
	NCL-44	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00122	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-44	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00101	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-44	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00109	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-44	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00154	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-44	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00134	<0.000430	0.000383 J	<0.000430	<0.00100 J4
	NCL-44	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00164	<0.000430	0.000412 J	<0.000430	<0.00100
	NCL-49	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	NCL-49	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	NCL-49	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	NCL-49	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	NCL-49	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
North Refinery	MW-23	Apr-18		<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.114	0.141	<0.0719	<0.0367	<0.100	**0.247 J**
	MW-23	Oct-18		<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.0392 J	0.108	<0.0719	<0.0367	<0.100	**0.145 J**
	MW-23	Apr-19		<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.0397 J	0.0949 J	<0.0719	<0.0367	<0.100	<0.100
	MW-23	Oct-19		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.0105	0.0779	<0.00719	0.0336	<0.0100	**0.0359 J**
	MW-23	Jun-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.00865 J	0.101	<0.00430	0.0407	<0.00430	**0.0380 J**
	MW-23	Oct-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.0264	0.125	<0.00430	0.0751	<0.00430	**0.0750**
	MW-29	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.000482 J	<0.00100	<0.00100
	MW-29	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00163	<0.000719	0.00403	<0.00100	<0.00100
	MW-29	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00116	<0.00100	<0.00100
	MW-29	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.000547 J	<0.000326	<0.000719	0.00208	<0.00100	<0.00100
	MW-29	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000183 J	<0.000430	0.00162	<0.000430	<0.00100
	MW-29	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00251	<0.000430	<0.00100
	MW-39	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0263	0.0421	0.141	0.00147	<0.00100	0.00102 J
	MW-39	Oct-18		<0.000324	0.000300 J	<0.000260	<0.000418	<0.000327	0.0100	0.0198	0.0493	0.00180	<0.00100	<0.00100
	MW-39	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00689	0.0181	0.0354	0.000625 J	<0.00100	<0.00100
	MW-39	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.00609	0.0225	0.0263	0.00113	<0.00100	<0.00100
	MW-39	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	0.00317	0.0234	0.0232	0.00120	<0.000430	0.00109 J
	MW-39	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00165	0.0123	0.0115	0.00138	<0.000430	0.00123 J
	MW-40	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000721 J	0.0804	0.0117	<0.000367	<0.00100	<0.00100
	MW-40	Apr-18		0.00196 J	<0.000276	<0.000260	<0.000418	<0.000327	0.000567 J	0.0930	0.00619	<0.000367	<0.00100	<0.00100
	MW-40	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0799	0.00157 J	<0.000367	<0.00100	<0.00100
	MW-40	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000220 J	0.0484	0.00241	<0.000101	<0.000430	<0.00100
	MW-41	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0148	<0.000719	0.00380	<0.00100	<0.00100
	MW-41	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00791	<0.000719	0.00796	<0.00100	<0.00100
	MW-41	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0216	<0.000719	0.0178	<0.00100	<0.00100
	MW-41	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00729	<0.000430	0.0254	<0.000430	<0.00100
	MW-42	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0278	0.00365	0.0104	<0.00100	<0.00100
	MW-42	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0256	0.00420	0.00598	<0.00100	<0.00100
	MW-42	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.0331	0.0226	0.00655	<0.00500	<0.00500
	MW-42	Jun-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	0.00108 J	0.0301	0.0535	0.0103	<0.00215	<0.00500
	MW-43	Apr-18		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.215	0.0950	1.52	0.0477 J	<0.0500	**0.303**
	MW-43	Oct-18		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0818	0.0770	1.33	0.0545	<0.0500	**0.235 J**
	MW-43	Apr-19		<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	<0.0768	<0.0652	0.744	<0.0734	<0.200	**0.307 J**
	MW-43	Oct-19		<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	0.129 J	<0.0652	0.610	<0.0734	<0.200	**0.229 J**
	MW-43	Jun-20		0.00489 J	<0.0192	<0.00252	<0.00222	<0.00280	0.0311	0.0437	0.703	0.0347	<0.00860	**0.132**
	MW-43	Oct-20		<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.136	0.0453 J	0.852	0.0481 J	<0.0215	**0.105 J**
	MW-59	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0175	<0.000719	<0.000367	<0.00100	<0.00100
	MW-59	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0236	<0.000719	<0.000367	<0.00100	<0.00100
	MW-59	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0207	<0.000719	<0.000367	<0.00100	<0.00100
	MW-59	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.0103	<0.000430	0.00350	<0.000430	0.00202 J
	MW-60	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000526 J	0.0205	0.00229	<0.000367	<0.00100	<0.00100
	MW-60	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000433 J	0.0200	0.00196 J	<0.000367	<0.00100	<0.00100
	MW-60	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00115	0.0240	0.00573	<0.000367	<0.00100	<0.00100
	MW-60	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000973 J	0.0242	0.00540	<0.000367	<0.00100	<0.00100
	MW-60	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	0.0220	0.00202	<0.000367	<0.00100	<0.00100
	MW-60	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	0.0217	0.00124 J	<0.000367	<0.00100	<0.00100
	MW-60	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.000798 J	0.0233	0.0114	<0.000367	<0.00100	<0.00100
	MW-60	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000739 J	0.0227	0.0108	<0.000367	<0.00100	<0.00100
	MW-60	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000281 J	0.0145	0.00157 J	<0.000101	<0.000430	<0.00100
	MW-60	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000296 J	0.0126	0.00194 J	<0.000101	<0.000430	<0.00100
	MW-60	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000461 J	0.0231	0.00238	0.000168 J	<0.000430	<0.00100
	MW-60	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000472 J	0.0231	0.00224	0.000180 J	<0.000430	<0.00100 J4
	MW-61	Apr-18		<0.0162	<0.0138	0.0379 J	<0.0209	<0.0164	0.0846	0.118	0.450	<0.0184	<0.0500	**0.250 J**
	MW-61	Oct-18		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0367 J	0.0978	0.353	<0.0184	<0.0500	**0.0940 J**
	MW-61	Apr-19		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0512	0.0994	0.483	<0.0184	<0.0500	**0.117 J**
	MW-61	Oct-19		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0550	0.116	0.571	<0.0184	<0.0500	**0.211 J**
	MW-61	Jun-20		<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.0545	0.0906	0.611	<0.00505	<0.0215	**0.177 J**
	MW-61	Oct-20		<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.0519	0.107	0.695	0.0110 J	<0.0215	**0.177 J**

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**												
North Refinery	MW-62	Apr-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.129	0.128	1.15	<0.0367	<0.100	**0.313 J**
	MW-62	Oct-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.106	0.112	0.871	<0.0367	<0.100	**0.183 J**
	MW-62	Apr-19			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0652	0.117	0.988	<0.00734	<0.0200	**0.177**
	MW-62	Oct-19			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0653	0.124	0.874	0.0449	<0.0200	**0.177**
	MW-62	Jun-20			<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.0506	0.0647	0.557	0.0672	<0.00860	**0.177**
	MW-62	Oct-20			<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.151	0.0974	0.757	0.0836	<0.00860	**0.116**
	MW-62R	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.0302	0.162	0.136	0.0107	<0.000430	**0.0790**
	MW-67	Oct-17			<0.000324	<0.000276	0.00275	<0.000418	<0.000327	0.00330	0.0300	0.00245	**0.201**	<0.00100	<0.00100
	MW-67	Apr-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00500	0.0470	0.00916 J	**0.219**	<0.00500	<0.00500
	MW-67	Oct-18			<0.000324	<0.000276	0.00122	<0.000418	<0.000327	0.000620 J	0.0231	0.00113 J	**0.289**	<0.00100	<0.00100
	MW-67	Apr-19			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00237 J	0.0348	<0.00360	**0.140**	<0.00500	<0.00500
	MW-90	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0321	<0.000719	<0.000367	<0.00100	<0.00100
	MW-90	Oct-18			0.000589 J	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0355	<0.000719	<0.000367	<0.00100	<0.00100
	MW-90	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0289	<0.000719	<0.000367	<0.00100	<0.00100
	MW-90	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.000557 J	0.0259	<0.000719	<0.000367	<0.00100	<0.00100
	MW-90	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000290 J	0.0353	<0.000430	<0.000101	<0.000430	<0.00100
	MW-90	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000310 J	0.0462	<0.000430	<0.000101	<0.000430	<0.00100
	MW-91	Apr-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.258	0.106	0.559	<0.0367	<0.100	**0.136 J**
	MW-91	Oct-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.210	0.0813 J	0.552	<0.0367	<0.100	<0.100
	MW-91	Apr-19			<0.0324	<0.0276	**0.0926 J**	<0.0418	<0.0327	0.481	0.0850 J	0.612	<0.0367	<0.100	<0.100
	MW-91	Oct-19			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327 J4	**1.48**	0.115	1.57	<0.0367	<0.100	<0.100
	MW-91	Jun-20			<0.0111	<0.0960	<0.0126	<0.0111	<0.0140	**1.85**	0.105	1.85	<0.0101	<0.0430	<0.100
	MW-92	Apr-16			<0.000324	<0.000276	0.0640	<0.000418	<0.000327	0.462	0.0373	0.161	**0.113**	<0.00100	**0.224 J**
	MW-92	Oct-16			<0.00648	<0.00552	**0.0968**	<0.00836	<0.00654	0.400	0.0242	0.0947	**0.134**	<0.0200	**0.174**
	MW-93	Apr-17			<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	<0.00960	0.0355	0.326	<0.00918	<0.0250	**0.0422 J**
	MW-93	Apr-18			<0.000324	<0.000276	0.000281 J	<0.000418	<0.000327	0.00738	0.0359	0.332	<0.000367	<0.00100	0.0256
	MW-93	Apr-19			<0.000324	<0.000276	0.000267 J	<0.000418	<0.000327	0.00962	0.0340	0.299	<0.000367	<0.00100	**0.0482**
	MW-93	Jun-20			<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.00622 J	0.0262	0.296	<0.00202	<0.00860	**0.0519 J**
	MW-94	Oct-15			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.509	0.0646	0.214	**0.798**	<0.0100	**0.202**
	MW-94	Apr-16			<0.0162	<0.0138	0.0149 J	<0.0209	<0.0164	0.553	0.0776	0.228	**0.621**	<0.0500	**0.228 J**
	MW-94	Oct-16			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.564	0.0705	0.202	**2.01**	<0.00500	**0.128**
	MW-94	Apr-17			<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	0.432	0.0621	0.168	**0.958**	<0.0250	**0.174**
	MW-95	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0114	<0.000719	<0.000367	<0.00100	<0.00100
	MW-95	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0122	<0.000719	<0.000367	<0.00100	<0.00100
	MW-95	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00797	<0.000719	<0.000367	<0.00100	<0.00100
	MW-95	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000196 J	0.00904	<0.000430	<0.000101	<0.000430	<0.00100
	MW-96	Apr-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	<0.0192	0.118	<0.0360	**29.4**	<0.0500	<0.0500
	MW-96	Oct-18			<0.324	<0.276	<0.260	<0.418	<0.327	<0.384	<0.326	<0.719	**26.7**	<1.00	<1.00
	MW-96	Apr-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	<0.0192	0.0919	<0.0360	**32.7**	<0.0500	<0.0500
	MW-96	Oct-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	<0.0192	0.0614	<0.0360	**33.3**	<0.0500	<0.0500
	MW-96	Jun-20			<0.0278	<0.240	<0.0315	<0.0278	<0.0350	<0.0343	0.0848 J	<0.108	**37.6**	<0.108	<0.250
	MW-96	Oct-20			<0.0278	<0.240	<0.0315	<0.0278	<0.0350	<0.0343	0.0931 J	<0.108	**40.5**	<0.108	<0.250
	MW-98	Apr-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**1.08**	0.102	1.88	<0.0184	<0.0500	**0.327**
	MW-98	Oct-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**1.09**	0.0816	2.13	<0.0184	<0.0500	**0.257**
	MW-98	Apr-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**1.18**	0.0988	2.16	<0.0184	<0.0500	**0.251**
	MW-98	Oct-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**0.870**	0.0947	1.84	<0.0184	<0.0500	**0.301**
	MW-98	Jun-20			<0.00555	<0.0480	<0.00630	<0.00555 J4	<0.00700	**0.711**	0.120	2.14	<0.00505	<0.0215	**0.255**
	MW-98	Oct-20			<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	**0.788**	0.0840	1.85	<0.00505	<0.0215	**0.207 J**
	MW-137	Oct-17			<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	**1.53**	0.113 J	0.891	0.0754 J	<0.200	**0.317 J**
	MW-137	Apr-18			<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	**1.86**	0.117 J	0.905	0.0758 J	<0.200	**0.373 J**
	MW-137	Oct-18			<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	**1.09**	0.0812 J	0.523	0.0876 J	<0.200	**0.237 J**
	MW-137	Apr-19			<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	**1.21**	0.0714 J	0.547	<0.0734	<0.200	<0.200
	MW-138	Oct-17			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.0244	0.0579	0.00565 J	**0.163**	<0.00500	**0.0635**
	MW-138	Apr-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.222	0.0572	0.0438	**0.188**	<0.00500	**0.0667**
	MW-138	Oct-18			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.423	0.0543	0.109	**0.269**	**0.00504 J**	**0.0379**
	MW-138	Apr-19			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.389	0.0611	0.0968	**0.171**	<0.00500	**0.0377**
	RW-1R	Apr-16			<0.000324	<0.000276	**2.14**	<0.000418	<0.000327	0.0214	<0.000326	0.0111	0.0133	<0.00100	0.00762
	RW-1	Apr-17			<0.00324	<0.00276	**0.624**	<0.00418	<0.00327	0.0169	0.00424 J	0.00743 J	0.0441	<0.0100	<0.0100
	RW-1	Apr-18			<0.000324	<0.000276	**0.681**	<0.000418	<0.000327	0.0964	0.0316	0.0827	0.0292	<0.00100	0.0132
	RW-1	Apr-19			<0.000324	<0.000276	**0.980**	<0.000418	<0.000327	0.102	0.0222	0.0803	0.0218	<0.00100	0.00849
	RW-2	Apr-15			<0.00320	<0.00280	**0.619**	<0.00420	<0.00330 UJ	**1.02**	0.0551	0.445	<0.00370	<0.0100 UJ	**0.157 J**
	RW-2R	Apr-16			<0.0162	<0.0138	**0.555**	<0.0209	<0.0164	0.591	0.0332 J	0.253	0.0226 J	<0.0500	**0.145 J**
	RW-2	Apr-17			<0.0162	<0.0138	**0.828**	<0.0209	<0.0164	**0.837**	0.0533	0.413	<0.0184	<0.0500	**0.145 J**
	RW-2	Apr-18			<0.000324	<0.000276	**0.543**	<0.000418	<0.000327	0.672	0.0769	0.440	0.0120	<0.00100	**0.190**
	RW-7	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0325	<0.00100	<0.00100
	RW-7	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00132	0.00650	0.00431	0.0378	<0.00100	0.00204 J
	RW-7	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00312	0.000961 J	0.0229	<0.00100	<0.00100
	RW-7	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000204 J	0.00809	0.00209	0.00825	<0.000430	<0.00100
	RW-8	Apr-15			<0.00320	<0.00280	<0.00260	<0.00420	<0.00330	0.00801 J	0.0204	<0.00720	**2.41**	**0.0113 J**	<0.0100
	RW-8	Apr-17			<0.000324	<0.000276	0.000478 J	<0.000418	<0.000327	0.0198	0.0193	0.0386	**1.94**	<0.00100	**0.0320**
	RW-9	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00105	0.0868	0.0193	0.00435	<0.00100	<0.00100
	RW-9	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00159	0.100	0.0180	0.00409	<0.00100	<0.00100
	RW-9	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00108	0.0952	0.00929	0.00439	<0.00100	<0.00100
	RW-9	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000448 J	0.0791	0.000974 J	0.0674	<0.000430	<0.00100
	RW-10	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000403 J	0.00399	0.000792 J	<0.000367	<0.00100	<0.00100
	RW-10	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000727 J	0.00307	0.00126 J	<0.000367	<0.00100	<0.00100
	RW-10	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000633 J	0.00242	0.000967 J	<0.000367	<0.00100	<0.00100
	RW-10	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	0.000865 J	0.00269	0.00152 J	0.000418 J	<0.000430	<0.00100
	RW-16B	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0152	<0.00100	<0.00100
	RW-16B	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00172	<0.00100	<0.00100
	RW-16B	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.00166	<0.00100	<0.00100
	RW-16B	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000328 J	<0.000105	0.000872 J	0.00482	<0.000430	<0.00100
	RW-17A	Apr-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.189**	<0.00100	<0.00100
	RW-17A	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.107**	<0.00100	<0.00100
	RW-17A	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	0.0434	<0.00100	<0.00100
	RW-17A	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
North RO Field	MW-117	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-117	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-117	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-117	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-117	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.000222 J	<0.000430	<0.00100
	MW-117	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00195	<0.000430	<0.00100
	MW-118	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-118	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-118	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-118	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-118	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-118	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000149 J	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds										
				Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
				CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**												
North RO Field	MW-119	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-119	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-119	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-119	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-119	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-119	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
South Refinery	KWB-2R	Apr-17			0.00360 J	<0.000276	<0.000260	<0.000418	<0.000327	0.00543	0.00816	0.0273	0.0192	<0.00100	0.00609
	KWB-2R	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.325	0.0635	0.183	0.0202	<0.00100	**0.0675**
	KWB-2R	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.686	0.0403	0.175	0.0235	<0.00100	0.00993 J4
	KWB-2R	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.264	0.0724	0.109	0.0216	<0.00100	**0.0323**
	KWB-5	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.0960	0.00852	<0.180	**12.4**	<0.00100	0.0131
	KWB-5	Apr-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	<0.0960	<0.0815	<0.180	**10.3**	<0.250	<0.250
	KWB-5	Oct-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	<0.0960	<0.0815	<0.180	**10.8**	<0.250	<0.250
	KWB-5	Apr-19			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	<0.0960	<0.0815	<0.180	**9.94**	<0.250	<0.250 J4
	KWB-6	Apr-17			<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.346	0.0344	0.373	**0.154**	<0.00500	**0.0563**
	KWB-6	Oct-17			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.183	0.0199	0.275	**0.102**	<0.00100	**0.0436**
	KWB-6	Apr-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.156	0.0252	0.223	**0.122**	<0.0200	**0.0587 J**
	KWB-6	Oct-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.102	0.0133 J	0.356	**0.120**	<0.0200	**0.0469 J**
	MW-28	Apr-18			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0408 J	0.0361 J	0.144	0.0977	<0.0500	**0.0604 J**
	MW-28	Oct-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.00788 J	0.00981 J	0.0301 J	0.0425	<0.0200	<0.0200
	MW-28	Apr-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0274 J	0.0436 J	0.140	**0.268**	<0.0500	**0.0736 J**
	MW-28	Oct-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0375 J	0.0755	0.264	**0.692**	<0.0500	**0.137 J**
	MW-28	Jun-20			0.00390 J	<0.00480	<0.000630	<0.000555	<0.000700	0.0201	0.0246	0.0901	**0.194**	<0.00215	0.0157 J
	MW-28	Oct-20			<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	0.0136	0.0192	0.0609	**0.214**	<0.00215	0.00638 J
	MW-48	Apr-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	**1.36**	<0.0815	0.954	**0.171 J**	<0.250	<0.250
	MW-48	Oct-18			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	0.479	0.0962 J	0.358 J	**0.611**	<0.250	<0.250
	MW-48	Apr-19			<0.0810	<0.0690	<0.0650	<0.104	<0.0818	0.603	0.122 J	0.498 J	**0.372**	<0.250	**1.20 JJ4**
	MW-48	Oct-19			<0.0810	<0.0690	<0.0650	<0.105	<0.0817	0.118 J	<0.0815	0.290 J	**0.517**	<0.250	<0.250
	MW-50	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-50	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-50	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-50	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.000417 J	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-50	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000106 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-50	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.000110 J	<0.000430	<0.000101	<0.000430	<0.00100
	MW-52	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-52	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-52	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-52	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-52	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-52	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-64	Apr-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.237	0.00783 J	0.360	0.0359	<0.0200	0.0238 J
	MW-64	Oct-18			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	**2.47**	0.0804	3.66	**0.510**	<0.0200	**0.158**
	MW-64	Apr-19			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	**2.46**	0.0702	3.90	**0.509**	<0.0200	**0.171**
	MW-64	Oct-19			<0.00810	<0.00690	<0.00650	<0.0105	<0.00818 J4	**2.79**	0.0758	3.92	**0.502**	<0.0250	**0.133**
	MW-64	Jun-20			<0.0555	<0.480	<0.0630	<0.0555 J4	<0.0700	**1.76**	0.0605 J	3.26	**0.461 J**	<0.215	<0.500
	MW-64	Oct-20			<0.0555	<0.480	<0.0630	<0.0555	<0.0700	**1.55**	0.0640 J	2.31	**0.560**	<0.215	<0.500
	MW-65	Apr-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.0528 J	0.0594 J	<0.0719	**1.73**	<0.100	**0.253 J**
	MW-65	Oct-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	<0.0384	0.0545 J	<0.0719	**2.38**	<0.100	<0.100
	MW-65	Apr-19			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.0628 J	0.0535 J	<0.0719	**2.35**	<0.100	**0.152 J**
	MW-65	Oct-19			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327 J4	0.0565 J	0.0608 J	<0.0719	**1.82**	<0.100	**0.148 J**
	MW-66	Apr-18			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.00776 J	0.0694	0.0118 J	**1.78**	<0.0100	**0.186**
	MW-66	Oct-18			<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.00686 J	0.0634	0.0102 J	**2.05**	<0.0100	**0.161**
	MW-66	Apr-19			<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	<0.00960	0.0366	<0.0180	**1.36**	<0.0250	**0.0987 J**
	MW-66	Oct-19			<0.00810	<0.00690	<0.00650	<0.0105	<0.00818	<0.00960	0.0446	<0.0180	**1.69**	<0.0250	**0.0758 J**
	MW-66	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00717	0.0552	0.0121	**1.62**	<0.000430	**0.167**
	MW-66	Oct-20			<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.00643 J	0.0424	0.00604 J	**1.90**	<0.00430	**0.0737**
	MW-99	Apr-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.275	0.0594 J	0.285	**2.99**	<0.100	<0.100
	MW-99	Oct-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.201	0.0672 J	0.358	**3.10**	<0.100	<0.100
	MW-99	Apr-19			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.491	0.0480 J	0.379	**2.24**	<0.100	<0.100
	MW-99	Oct-19			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.241	<0.0326	0.218	**0.533**	<0.100	<0.100
	MW-99	Jun-20			<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.0866	0.0139	0.0721	**0.379**	<0.00430	<0.0100
	MW-101	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00192	<0.000719	0.0900	<0.00100	<0.00100
	MW-101	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.125**	<0.00100	<0.00100
	MW-101	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000950 J	<0.000719	0.0830	<0.00100	<0.00100
	MW-101	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00284	<0.000719	0.0766	<0.00100	0.00270 J
	MW-101	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	0.000302 J	0.00538	<0.000430	0.0502	<0.000430	<0.00100
	MW-101	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.0180	0.0205	0.0771	0.0532	<0.000430	0.0180
	MW-102	Apr-18			<0.162	<0.138	<0.130	<0.209	<0.164	**0.903**	<0.163	0.410 J	**1.19**	<0.500	<0.500
	MW-102	Oct-18			<0.162	<0.138	<0.130	<0.209	<0.164	0.648	<0.163	0.478 J	**1.68**	<0.500	<0.500
	MW-102	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0389	0.362	**1.79**	<0.00100	**0.178**
	MW-102	Oct-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	**0.908**	0.0535	0.450	**1.55**	<0.0500	**0.179 J**
	MW-102	Jun-20			<0.0111	<0.0960	<0.0126	<0.0111	<0.0140	0.477	0.0273 J	0.188 J	**0.719**	<0.0430	**0.142 J**
	MW-102	Oct-20			<0.0111	<0.0960	<0.0126	<0.0111	<0.0140	0.537	0.0289 J	0.227	**1.20**	<0.0430	**0.127 J**
	MW-103	Apr-17			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	<0.0192	0.0192 J	<0.0360	<0.0184	<0.0500	<0.0500
	MW-103	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0384	0.0303	0.00775	<0.000367	<0.00100	**0.116**
	MW-103	Apr-19			<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0573	0.0247	<0.0144	<0.00734	<0.0200	0.0256 J
	MW-103	Jun-20			<0.00222	<0.0192	<0.00252	<0.00222 J4	<0.00280	0.00844 J	0.0295	<0.00860	<0.00202	<0.00860	<0.0200
	MW-104	Apr-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000906 J	0.0430	<0.000719	0.00320	<0.00100	0.00239 J
	MW-104	Apr-18	FD		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.0393	<0.00360	0.00393 J	<0.00500	<0.00500
	MW-104	Oct-18			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00315	0.0408	<0.000719	0.00661	<0.00100	0.00175 J
	MW-104	Oct-18	FD		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00316 J	0.0341	<0.00360	0.00582	<0.00500	<0.00500
	MW-104	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000633 J	0.0376	<0.000719	0.00178	<0.00100	<0.00100
	MW-104	Apr-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0300	<0.000719	0.00158	<0.00100	<0.00100
	MW-104	Oct-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.00330	0.0286	<0.000719	0.00165	<0.00100	0.00216 J
	MW-104	Oct-19	FD		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00250	0.0258	<0.000719	<0.00184	<0.00100	0.00208 J
	MW-104	Jun-20			<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	0.0324	<0.000430	0.000680 J	<0.000430	<0.00100
	MW-104	Jun-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000161 J	0.0263	<0.000430	0.000790 J	<0.000430	<0.00100
	MW-104	Oct-20			<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.0256	<0.000430	0.000402 J	<0.000430	<0.00100
	MW-104	Oct-20	FD		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.0221	<0.000430	0.000506 J	<0.000430	<0.00100
	MW-105	Apr-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.517	0.0722 J	0.304	<0.0367	<0.100	**0.106 J**
	MW-105	Oct-18			<0.0324	<0.0276	<0.0260	<0.0418	<0.0327	0.257	0.0436 J	0.277	<0.0367	<0.100	<0.100
	MW-105	Apr-19			<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	0.0988	0.0379	0.239	0.00541	<0.00100	**0.0334**
	MW-105	Oct-19			<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0963	0.0367 J	0.308	<0.0184	<0.0500	**0.134 J**
	MW-105	Jun-20			<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.0282 J	0.0329 J	0.237	0.0234 J	<0.0215	<0.0500
	MW-105	Oct-20			<0.00555	<0.0480	<0.00630	<0.00555	<0.00700	0.584	0.0432 J	0.371	0.0230 J	<0.0215	**0.0778 J**

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds											
			Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
			CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**											
South Refinery	MW-106	Apr-18		<0.0648	<0.0552	<0.0520	<0.0836	<0.0654	0.0772 J	<0.0652	0.298 J	0.0813 J	<0.200	<0.200
	MW-106	Oct-18		<0.162	<0.138	<0.130	<0.209	<0.164	<0.192	<0.163	<0.360	<0.184	<0.500	<0.500
	MW-106	Apr-19		<0.162	<0.138	<0.130	<0.209	<0.164 J4	<0.192	0.305 J	<0.360	<0.184	<0.500	**1.24 J**
	MW-106	Oct-19		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	0.0301 J	0.0336 J	0.196	0.0757	<0.0500	**0.148 J**
	MW-106	Jun-20		<0.0111	<0.0960	<0.0126	<0.0111	<0.0140	0.0662 J	0.0273 J	0.173 J	0.0672 J	<0.0430	<0.100
	MW-106	Oct-20		<0.0222	<0.192	<0.0252	<0.0222	<0.0280	0.161 J	0.0376 J	0.253 J	**0.105 J**	<0.0860	<0.200
	MW-107	Oct-16		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.0192	0.0457	0.00857 J	**3.05**	<0.00500	**0.0614**
	MW-107	Apr-17		<0.0162	<0.0138	<0.0130	<0.0209	<0.0164	<0.0192	0.0334 J	<0.0360	**2.78**	<0.0500	**0.0788 J**
	MW-107	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0382	0.0576	0.0130	**3.02**	<0.00100	**0.143**
	MW-107	Apr-19		<0.0810	<0.0690	<0.0650	<0.104	<0.0818	<0.0960	<0.0815	<0.180	**3.39**	<0.250	<0.250
	MW-109	Apr-18		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0122 J	0.0632	0.0257 J	<0.00734	<0.0200	<0.0200
	MW-109	Oct-18		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0111 J	0.0639	0.0220 J	<0.00734	<0.0200	<0.0200
	MW-109	Apr-19		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0115 J	0.0606	0.0183 J	<0.00734	<0.0200	<0.0200 J4
	MW-109	Oct-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.00829	0.0523	0.0136	<0.00184	<0.00500	<0.00500
	MW-109	Jun-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.00892 J	0.0746	0.0238	<0.00101	<0.00430	<0.0100
	MW-109	Oct-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.00637 J	0.0619	0.0114 J	<0.00101	<0.00430	<0.0100
	MW-110	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.109	0.0533	0.0576	<0.000367	<0.00100	0.0135
	MW-110	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00680	<0.000719	<0.000367	<0.00100	<0.00100
	MW-110	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000675 J	0.00922	0.00169 J	<0.000367	<0.00100	<0.00100 J4
	MW-110	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.000929 J	<0.000719	<0.000367	<0.00100	<0.00100
	MW-110	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000357 J	0.00747	0.00123 J	<0.000101	<0.000430	<0.00100
	MW-110	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000175 J	0.00157	<0.000430	<0.000101	<0.000430	<0.00100
	MW-139	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0187	<0.000719	<0.000367	<0.00100	<0.00100
	MW-139	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.0102	<0.000430	<0.000101	<0.000430	<0.00100
	MW-139	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	0.00832	<0.000430	<0.000101	<0.000430	0.00410 J
	RA-313	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-313	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	RA-313	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	RA-313	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	RW-4	Apr-17		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.00716	<0.00360	**0.132**	<0.00500	<0.00500
	RW-4	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.00618	<0.000719	0.0583	<0.00100	0.00103 J
	RW-4	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00198	0.0159	0.00147 J	0.0933	<0.00100	0.0266
	RW-4	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00185	0.0254	0.00270	0.0727	<0.000430	<0.00100
	RW-5R	Apr-15		<0.00320	<0.00280	<0.00260	<0.00420	<0.00330	**1.03**	0.0398	1.39	**2.15**	<0.0100	**0.174**
	RW-5R	Apr-16		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	**1.20**	0.0643	1.68	**1.64**	<0.0200	**0.205**
	RW-6	Apr-15		<0.00320	<0.00280	<0.00260	<0.00420	<0.00330	0.0476	0.0173	0.102	**2.27**	<0.0100	**0.0602**
	RW-6R	Apr-16		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00474	0.00797	0.00472	**2.68**	<0.00100	0.00574
	RW-6	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.0838	0.0299	0.0926	<0.000367	<0.00100	0.0290
	RW-6	Apr-19		<0.00648	<0.00552	<0.00520	<0.00836	<0.00654	0.0487	0.0327	0.0224 J	**0.792**	<0.0200	**0.0678 J**
	RW-15C	Apr-17		<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	**4.19**	0.143	4.92	**4.25**	<0.0250	**0.383**
	RW-15C	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	**3.93**	0.114	2.98	**3.02**	<0.00100	<0.500
	RW-15C	Apr-19		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	**3.03**	0.134	1.04	**3.66**	<0.0100	**0.173 J4**
South RO Field	MW-114	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-114	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-114	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-114	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-114	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00475	<0.000430	<0.00100
	MW-114	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.0112	<0.000430	<0.00100
	MW-115	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-115	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-115	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-115	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-115	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00126	<0.000430	<0.00100
	MW-115	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00364	<0.000430	<0.00100
	MW-116	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-116	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-116	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-116	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327 J4	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-116	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-116	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
TEL	MW-49	Apr-18		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.0135	0.0393	0.133	**0.113**	<0.0100	0.0159 J
	MW-49	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.0143	0.0436	0.130	**0.124**	<0.00500	0.00585 JJ4
	MW-49	Apr-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.0137	0.0347	0.112	**0.139**	<0.00500	0.0165 J
	MW-49	Oct-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	0.0175	0.0311	0.120	**0.160**	<0.00500	0.0132 J
	MW-49	Jun-20		<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.0249	0.0470	0.179	**0.148**	<0.00860	0.0241 J
	MW-49	Oct-20		<0.00222	<0.0192	<0.00252	<0.00222	<0.00280	0.0121 J	0.0329	0.113	**0.196**	<0.00860	<0.0200
	TEL-1	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000482 J	0.00114	0.000870 J	0.00337	<0.00100	<0.00100
	TEL-1	Oct-18		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	<0.00163	<0.00360	0.00255 J	<0.00500	<0.00500
	TEL-1	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000481 J	0.000923 J	<0.000719	0.00297	<0.00100	<0.00100
	TEL-1	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000750 J	0.00128	0.000880 J	0.00310	<0.00100	<0.00100
	TEL-1	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000831 J	0.00123	0.00139 J	0.00230	<0.000430	<0.00100
	TEL-2	Apr-18		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	<0.00384	0.0303	0.0962	0.00795 J	<0.0100	<0.0100
	TEL-2	Oct-18		<0.00810	<0.00690	<0.00650	<0.0104	<0.00818	0.0121 J	0.0354	0.123	<0.00918	<0.0250	<0.0250
	TEL-2	Apr-19		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.00401 J	0.0254	0.0843	0.00752 J	<0.0100	<0.0100
	TEL-2	Oct-19		<0.00324	<0.00276	<0.00260	<0.00418	<0.00327	0.00384 J	0.0202	0.0638	0.00496 J	<0.0100 J4	<0.0100
	TEL-2	Jun-20		<0.00111	<0.00960	<0.00126	<0.00111	<0.00140	0.00152 J	0.0178	0.0489	0.00459 J	<0.00430	<0.0100
	TEL-3	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.00162	0.0556	0.0188	0.0637	<0.00100	<0.00100
	TEL-3	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000779 J	0.0519	0.00717	0.00433	<0.00100	<0.00100
	TEL-3	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	0.000766 J	0.0368	0.0123	0.00175	<0.00100	0.00119 J
	TEL-3	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.00262	0.0541	0.0441	0.00419	<0.000430	0.00365 J
	TEL-4	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0266	0.00408	0.0670	<0.00100	<0.00100
	TEL-4	Apr-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0266	0.00401	0.0671	<0.00100	<0.00100
	TEL-4	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0228	0.00185 J	0.00101	<0.00100	<0.00100
	TEL-4	Oct-18	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0254	0.00221	0.000874 J	<0.00100	<0.00100
	TEL-4	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0179	0.000983 J	0.00115	<0.00100	<0.00100
	TEL-4	Apr-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0185	0.00104 J	0.00122	<0.00100	<0.00100
	TEL-4	Oct-19		<0.00162	<0.00138	<0.00130	<0.00209	<0.00164	<0.00192	0.0144	<0.00360	0.0381	<0.00500 J4	<0.00500
	TEL-4	Oct-19	FD	<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	0.0195	0.00125 J	0.0425	<0.00100	<0.00100
	TEL-4	Jun-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	0.0148	<0.00215	0.0431	<0.00215	<0.00500
	TEL-4	Jun-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000453 J	0.0168	0.00183 J	0.0438	<0.000430	<0.00100
	TEL-4	Oct-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	0.00919	<0.00215	0.0898	<0.00215	<0.00500
	TEL-4	Oct-20	FD	<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000370 J	0.0114	0.000965 J	0.0891	<0.000430	<0.00100
TMD	MW-8	Apr-17		<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	0.00228	<0.00100	<0.00100 J4
	MW-8	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0388	<0.00100	<0.00100
	MW-8	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0750	<0.00100	<0.00100 J3J4
	MW-8	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	**0.149**	<0.000430	<0.00100 J4
	MW-16	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-16	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-16	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-16	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

		Analyte Group:	Volatile Organic Compounds										
		Analyte:	Chloroform	Chloro-methane	cis-1,2-Dichloro-ethene	cis-1,3-Dichloro-propene	Dibromo-chloromethane	Ethyl-benzene	Isopropyl-benzene (Cumene)	m,p-Xylene	Methyl tert-butyl ether (MTBE)	Methylene chloride	Naphthalene
		Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		CGWSL:	0.0800	0.0203	0.0700	0.00471	0.0800	0.700	0.447	---	0.100	0.00500	0.0300
		CGWSL Source:	USEPA MCL	NMED TW	WQCC HH	USEPA TW	USEPA MCL	WQCC HH	WQCC TW	---	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
TMD	MW-20	Apr-17		<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-20	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-20	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J3J4
	MW-20	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	MW-21	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0382	<0.00100	<0.00100
	MW-21	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0695	<0.00100	<0.00100
	MW-21	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.101**	<0.00100	<0.00100 J3J4
	MW-21	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.217**	<0.00100	<0.00100
	MW-21	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	**0.128**	<0.000430	<0.00100 J4
	MW-21	Oct-20		<0.000555	<0.00480	<0.000630	<0.000555	<0.000700	<0.000685	<0.000525	<0.00215	**0.243**	<0.00215	<0.00500
	MW-25	Apr-17		<0.000324	<0.000276 J4	<0.000260	<0.000418 J4	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100 J4
	MW-25	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-25	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-25	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	MW-26	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-26	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-26	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-26	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	MW-27	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-27	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-27	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-27	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	MW-46R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-46R	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-46R	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-46R	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-46R	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-46R	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	MW-68	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-68	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-68	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-68	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	MW-71	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-71	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-71	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-71	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	0.00152	<0.000430	<0.00100 J4
	MW-89	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-89	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-89	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	MW-89	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100 J4
	NP-1	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.132**	<0.00100	<0.00100
	NP-1	Oct-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.547**	<0.00100	<0.00100
	NP-1	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0484	<0.00100	<0.00100 J3J4
	NP-1	Oct-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	**0.149**	<0.00100	<0.00100
	NP-1	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	<0.000137	<0.000105	<0.000430	**0.216**	<0.000430	<0.00100 J4
	NP-1	Oct-20		<0.000111	<0.000960	<0.000126	<0.000111	<0.000140	0.000245 J	<0.000105	0.000456 J	**0.217**	<0.000430	<0.00100
	NP-6	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0100	<0.00500	<0.0100	<0.00500
	NP-6	Apr-15		<0.000320	<0.000280	<0.000260	<0.000420	<0.000330 UJ	<0.000380	<0.000330	<0.000720	0.00878	<0.00100 UJ	<0.00100 UJ
	NP-6	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0353	<0.00100	<0.00100
	NP-6	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	0.0729	<0.00100	<0.00100 J3J4
Upgradient	UG-1	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-1	Apr-18		0.000367 J	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-1	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-1	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	UG-2	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-2	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-2	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-2	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	UG-3R	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-3R	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-3R	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-3R	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100
	UG-4	Apr-17		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-4	Apr-18		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-4	Apr-19		<0.000324	<0.000276	<0.000260	<0.000418	<0.000327	<0.000384	<0.000326	<0.000719	<0.000367	<0.00100	<0.00100
	UG-4	Jun-20		<0.000111	<0.000960	<0.000126	<0.000111 J4	<0.000140	<0.000137	<0.000105	<0.000430	<0.000101	<0.000430	<0.00100

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
Cross-Gradient	KWB-13	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-13	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-13	Apr-19		<0.000361	0.000683 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-13	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-136	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-136	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-136	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-136	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-136	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-136	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	NP-5	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	NP-5	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	NP-5	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-5	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-3156	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-3156	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-3156	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-3156	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
Evaporation Ponds	MW-1R	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-1R	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-1R	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-1R	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-2A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-2A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-2A	Apr-19		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-2A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-2A	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-2A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-3	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-3	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Apr-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	0.000488 JB	<0.000259
	MW-3	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-3	Jun-20		<0.00393	<0.00248	<0.00435	<0.00313	<0.00295	<0.00750	<0.00695	<0.00435	<0.00373	<0.00295	<0.00475	<0.00585
	MW-3	Jun-20	FD	<0.000157	<0.0000993	<0.000174	0.000130 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-3	Oct-20		<0.000157	<0.0000993	<0.000174	0.000140 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	0.000491 J	<0.000234
	MW-3	Oct-20	FD	<0.000157	<0.0000993	<0.000174	0.000160 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-4A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00266 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-4A	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-4A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-4A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	0.000484 JB	<0.000259
	MW-4A	Jun-20		<0.000157	<0.0000993	<0.000174	0.000326 J	<0.000118	<0.000300	<0.000278	0.000627 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-4A	Oct-20		<0.000157	0.000126 J	0.000202 J	0.000339 J	<0.000118	<0.000300	<0.000278	0.00234 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-4B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-4B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-4B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-4B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5A	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-5A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-5A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-5B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-5B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-5B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5C	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-5C	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-5C	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-5C	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-6A	Apr-17		<0.00361	<0.00349	<0.00341	<0.00365	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-6A	Apr-18		<0.000361	0.000460 J	0.00192	<0.000365	<0.000307	<0.000372	0.00139	0.00360	<0.000396	<0.000419	<0.000398	<0.000259
	MW-6A	Apr-19		<0.00180	<0.00174	0.00291 J	<0.00182	<0.00154	<0.00186	0.00289 J	0.00704 J	<0.00198	<0.00210	<0.00199	<0.00130
	MW-6A	Jun-20		<0.000785	<0.000497	0.00171 J	<0.000625	<0.000590	<0.00150	<0.00139	0.00171 J	<0.000745	<0.000590	**0.0217**	<0.00117
	MW-6B	Mar-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-6B	Mar-13	FD	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-6B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-6B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-6B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-7A	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Apr-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-7A	Jun-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-7A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-7A	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-7B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-7B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-7B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-7B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-10	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-10	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-10	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-10	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-10	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-10	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-11A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-11A	Oct-18													
	MW-11A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-11A	Oct-19													
	MW-11A	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-11A	Oct-20													

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Volatile Organic Compounds												
			Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
			Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
			CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup												
Evaporation Ponds	MW-11B	Mar-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-11B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-11B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-11B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-15	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-15	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-15	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-15	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-18A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-18A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-18B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-18B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-18B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-22A	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Apr-19	FD	<0.000361	<0.000349	<0.000341	0.000517 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22A	Jun-20		0.000199 J	<0.0000993	<0.000174	0.000265 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-22A	Jun-20	FD	<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-22A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-22A	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-22B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-22B	Apr-15		<0.000360	<0.000350	<0.000340	0.000381 J	<0.000310 UJ	<0.000370	<0.000780 UJ	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-22B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-22B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-70	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-70	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-70	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-70	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-70	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-70	Oct-20		<0.000157	0.000146 J	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-72	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-72	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-72	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-72	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-73	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-73	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-73	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-73	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-74	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-74	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-74	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-74	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	0.000473 JB	<0.000259
	MW-74	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-74	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-75	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-75	Oct-18		<0.000361	<0.000349	<0.000341	0.000955 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-75	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-75	Oct-19		<0.000361	<0.000349	<0.000341	0.000866 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-75	Jun-20		<0.00393	<0.00248	<0.00435	<0.00313	<0.00295	<0.00750	<0.00695	<0.00435	<0.00373	<0.00295	<0.00475	<0.00585
	MW-75	Oct-20		<0.00393	<0.00248	<0.00435	<0.00313	<0.00295	<0.00750	<0.00695	<0.00435	<0.00373	<0.00295	<0.00475	<0.00585
	MW-76	Apr-18		<0.000361	0.000427 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-76	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-76	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-76	Oct-19		<0.000361	0.000634 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-76	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	0.000628 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-76	Oct-20		<0.000157	0.000372 J	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-77	Apr-17		<0.00361	0.00565 J	<0.00341	0.00382 J	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-77	Apr-18		<0.00361	<0.00349	<0.00341	<0.00365	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-77	Apr-19		<0.00361	<0.00349	<0.00341	<0.00365	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-77	Jun-20		<0.00393	0.00360 J	<0.00435	<0.00313	<0.00295	<0.00750	<0.00695	<0.00435	<0.00373	<0.00295	<0.00475	<0.00585
	MW-78	Apr-17		<0.00361	<0.00349	<0.00341	<0.00365	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-78	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-78	Apr-19		<0.00361	<0.00349	<0.00341	<0.00365	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-78	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-79	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-79	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-79	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-79	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-79	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-79	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-80	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-80	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-80	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-80	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-81	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-81	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-81	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-81	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-82	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-82	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-82	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-82	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-83	Apr-18		<0.000361	0.000438 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00258 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-83	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-83	Apr-19		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-83	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-83	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-83	Oct-20		<0.000157	0.000165 J	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	0.00127 J	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-84	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-84	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-84	Apr-19		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-84	Oct-19		<0.00181	<0.00174	<0.00170	<0.00183	<0.00154	<0.00186	0.00344 J	<0.00530	<0.00198	<0.00209	<0.00199	<0.00130
	MW-84	Jun-20		<0.000785	<0.000497	<0.000870	<0.000625	<0.000590	<0.00150 J4	<0.00139	<0.000870	<0.000745	<0.000590	<0.000950	<0.00117
	MW-84	Oct-20		<0.00157	<0.000993	<0.00174	<0.00125	<0.00118	<0.00300	<0.00278	<0.00174	<0.00149	<0.00118	<0.00190	<0.00234

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
Evaporation Ponds	MW-86	Jun-20		<0.00314	0.00566 J	0.0216	<0.00250	<0.00236	<0.00600 J4	0.0345	0.0483 J	<0.00298	<0.00236	<0.00380	<0.00468	
	MW-86	Oct-20		<0.00314	0.00471 J	0.0288	<0.00250	<0.00236	<0.00600	0.0435	0.0583 J	<0.00298	<0.00236	<0.00380	<0.00468	
	MW-87	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-87	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-87	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-87	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-87	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-87	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-88	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-88	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130	
	MW-88	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-88	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-88	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-88	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-120	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-120	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-120	Apr-19		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130	
	MW-120	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-120	Jun-20		<0.000785	<0.000497	<0.000870	<0.000625	<0.000590	<0.00150	<0.00139	<0.000870	<0.000745	<0.000590	0.00169 J	<0.00117	
	MW-120	Oct-20		<0.000785	<0.000497	<0.000870	<0.000625	<0.000590	<0.00150	<0.00139	<0.000870	<0.000745	<0.000590	<0.000950	<0.00117	
	MW-121	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-121	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-121	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-121	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	0.000498 JB	<0.000259	
	MW-121	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-121	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-122	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-122	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-122	Apr-19		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130	
	MW-122	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-122	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-122	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-123	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-123	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130	
	MW-123	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	**0.00678**	<0.000398	<0.000259	
	MW-123	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-123	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-123	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-124	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-124	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-124	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-124	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	MW-124	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	MW-124	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-1R	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-1R	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-1R	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-1R	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-1R	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-1R	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234	
	OCD-2A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-2A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-2A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-2A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-2A	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-2A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234	
	OCD-3	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-3	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-3	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-3	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-3	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	0.000862 JBJ4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-3	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-4	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-4	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-4	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-4	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-4	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-4	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-5	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-5	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-5	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-5	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-5	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125 J4	<0.000118	<0.000300 J4	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-5	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-6	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-6	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-6	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-6	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-6	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-6	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-7AR	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-7AR	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-7AR	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-7AR	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-7AR	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-7AR	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-7B	Mar-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200	
	OCD-7B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260	
	OCD-7B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-7B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307 J3	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-8A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	OCD-8B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200	
	OCD-8B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260	
	OCD-8B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	OCD-8B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
Field East of Refinery	KWB-1A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	KWB-1A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	KWB-1A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	KWB-1A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259	
	KWB-1A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234	
	KWB-1A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234	

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
Field East of Refinery	KWB-1C	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	KWB-1C	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	KWB-1C	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-1C	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-7	Oct-17		0.000456 J	0.0105	0.00112	0.00591	<0.000307	<0.000372	<0.000412	0.0143	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-7	Oct-18		<0.000361	0.00333	<0.000341	0.00314	<0.000307	<0.000372	<0.000412	0.00156 J	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-7	Jun-20		0.000580 J	0.0205	0.00226	0.00879	<0.000118	<0.000300	0.000536 J	0.0413	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-7	Oct-20		0.000270 J	0.0140	0.000402 J	0.00555	<0.000118	<0.000300	<0.000278	0.00289 J	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-8	Oct-16		<0.0722	<0.0698	0.150 J	<0.0730	<0.0614	<0.0744	**1.48**	**1.16**	<0.0792	<0.0838	<0.0796	<0.0518
	KWB-8	Apr-17		<0.0361	0.0852 J	0.145	<0.0365	<0.0307	<0.0372	0.747	**2.07**	<0.0396	<0.0419	<0.0398	<0.0259
	KWB-8	Oct-17		0.00209	0.0217	0.0133	<0.000365	<0.000307	<0.000372	0.336	**0.795**	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-8	Oct-20		<0.0314	0.168 J	0.139 J	<0.0250	<0.0236	<0.0600	**1.08**	**4.19**	<0.0298	<0.0236	<0.0380	<0.0468
	KWB-10R	Apr-17		<0.0180	0.0714	**0.198**	<0.0182	<0.0154	<0.0186	0.0605	**0.914**	<0.0198	<0.0210	<0.0199	<0.0130
	KWB-10R	Oct-17		<0.000361	0.0748	0.112 J	0.0126	<0.000307	<0.000372	0.0588	**0.767**	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-10R	Apr-18		<0.0902	<0.0872	0.0922 J	<0.0912	<0.0768	<0.0930	<0.103	0.549 J	<0.0990	<0.105	<0.0995	<0.0648
	KWB-10R	Oct-18		<0.0902	<0.0872	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	<0.265	<0.0990	<0.105	<0.0995	<0.0648
	KWB-11A	Apr-18		<0.000361	<0.000349	<0.000341	0.00328	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11A	Oct-18		0.000730 J	<0.000349	<0.000341	0.00466	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11A	Apr-19		<0.000361	<0.000349	<0.000341	0.00135	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11A	Jun-20		<0.000157	0.00125	<0.000174	0.00210	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-11A	Oct-20		<0.000157	<0.0000993	<0.000174	0.00279	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-11B	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11B	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11B	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-11B	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-11B	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-12A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	KWB-12A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	KWB-12A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	KWB-12B	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	KWB-12B	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Apr-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-12B	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	KWB-12B	Jun-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	KWB-12B	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	KWB-12B	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	KWB-P4	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	KWB-P4	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	KWB-P4	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-P4	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-57	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-57	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-57	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-57	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-57	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-57	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-58	Oct-17		0.00529	0.0842	0.00179	0.00872	<0.000307	<0.000372	0.0101	0.222	<0.000396	<0.000419	<0.000398	<0.000259
	MW-58	Apr-18		<0.0180	0.0965	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	0.268	<0.0198	<0.0210	<0.0199	<0.0130
	MW-58	Oct-18		<0.0180	0.0900	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0210	<0.0199	<0.0130 J3
	MW-58	Oct-19		0.00804 J	0.0676	0.0119	0.0105	<0.00307	<0.00372	0.0141 J4	0.407	<0.00396	<0.00419	<0.00398	<0.00259
	MW-111	Apr-18		<0.00902	<0.00872	<0.00852	<0.00912	<0.00768	<0.00930	<0.0103	<0.0265	<0.00990	<0.0105	<0.00995	<0.00648
	MW-111	Oct-18		<0.00902	<0.00872	<0.00852	<0.00912	<0.00768	<0.00930	<0.0103	<0.0265	<0.00990	<0.0105	<0.00995	<0.00648
	MW-111	Apr-19		<0.000361	0.00424	<0.000341	0.000668 J	<0.000307	<0.000372	0.000523 J	0.00523	<0.000396	<0.000419	<0.000398	<0.000259
	MW-111	Oct-19		<0.000361	<0.000349	0.000929 J	<0.000365	<0.000307	<0.000372	<0.0103	0.0109	<0.000396	<0.000419	<0.000398	<0.000259
	MW-111	Jun-20		<0.00393	0.00411 J	<0.00435	<0.00313	<0.00295	<0.00750	<0.00695	0.0148 J	<0.00373	<0.00295	<0.00475	<0.00585
	MW-112	Nov-14		<0.00900	0.100	**0.600**	0.00910 J	<0.00770	<0.00930	0.730	**2.00**	<0.00990	<0.0100	<0.0100	<0.00650
	MW-113	Apr-18		<0.000361	0.000598 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00849	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Apr-18	FD	<0.000361	0.000439 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00901	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Oct-18		<0.000361	0.000882 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00867	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Oct-18	FD	<0.000361	0.000794 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00939	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Apr-19		<0.000361	0.000730 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.0113	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Apr-19	FD	<0.000361	0.000651 J	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.0128	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Oct-19		0.00451	0.0521	0.00194	0.00793	<0.000307	<0.000372	0.00609	0.309	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Oct-19	FD	0.00377	0.0452	0.00233	0.00773	<0.000307	<0.000372	0.00657	0.286	<0.000396	<0.000419	<0.000398	<0.000259
	MW-113	Jun-20		<0.000785	0.00199 J	<0.000870	<0.000625	<0.000590	<0.00150	<0.00139	0.0363	<0.000745	<0.000590	<0.000950	<0.00117
	MW-113	Jun-20	FD	<0.000157	0.000600 J	0.000359 J	0.000611 J	<0.000118	0.000582 JJ4	0.000490 J	0.0474	<0.000149	<0.000118	<0.000190	<0.000234
	MW-113	Oct-20		0.000994 J	0.0265	<0.000870	0.00271 J	<0.000590	<0.00150	0.00446 J	0.154	<0.000745	<0.000590	<0.000950	<0.00117
	MW-113	Oct-20	FD	0.00112	0.0295	0.000755 J	0.00332	<0.000118	<0.000300	0.00403	0.166	<0.000149	<0.000118	<0.000190	<0.000234
	MW-125	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-125	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-125	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-125	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412 J4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-125	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-125	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-126A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126A	Oct-18		<0.000361	<0.000349	<0.000341	0.00201	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126A	Oct-19		<0.000361	0.00532	<0.000341	0.00286	<0.000307	<0.000372	0.00168	0.00569	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-126A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-126B	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126B	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126B	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-126B	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-126B	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-127	Oct-17		<0.000361	0.0185	0.00373	0.00319	<0.000307	<0.000372	0.0396	0.0482	<0.000396	<0.000419	<0.000398	<0.000259
	MW-127	Apr-18		<0.00722	0.0255	<0.00682	<0.00730	<0.00614	<0.00744	0.0424	0.0654	<0.00792	<0.00838	<0.00796	<0.00518
	MW-127	Oct-18		<0.00722	0.0258	<0.00682	<0.00730	<0.00614	<0.00744	0.0397	0.0458 J	<0.00792	<0.00838	<0.00796	<0.00518
	MW-127	Apr-19		<0.00722	0.0261	<0.00682	<0.00730	<0.00614	<0.00744	0.0261	0.0933	<0.00792	<0.00838	<0.00796	<0.00518

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
Field East of Refinery	MW-128	Oct-17		<0.000361	0.00170	<0.000341	0.000380 J	<0.000307	<0.000372	0.000781 J	0.00336	<0.000396	<0.000419	<0.000398	<0.000259
	MW-128	Apr-18		<0.00722	<0.00698	<0.00682	<0.00730	<0.00614	<0.00744	<0.00824	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	MW-128	Oct-18		<0.00722	0.00759 J	<0.00682	<0.00730	<0.00614	<0.00744	<0.00824	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	MW-128	Apr-19		<0.00722	<0.00698	<0.00682	<0.00730	<0.00614	<0.00744	<0.00824	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	MW-129	Apr-16		0.000444 J	0.000863 J	0.000796 J	0.00103	<0.000307	<0.000372	<0.0390	0.00278 J	<0.000396	<0.000419 J4	<0.000398	<0.000259
	MW-129	Oct-16		<0.000361	0.000383 J	<0.000341	0.00105	<0.000307	<0.000372	0.000920 J	0.00124 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-129	Apr-17		<0.000361	<0.000349	<0.000341	0.000928 J	<0.000307	<0.000372	0.000543 J	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-129	Apr-18		<0.000361	<0.000349	<0.000341	0.000419 J	<0.000307	<0.000372	0.000816 J	0.00125 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-130	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-130	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-130	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-130	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-130	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-130	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-131	Apr-17		0.00255	0.0338	0.0406	0.00331	<0.000307	<0.000372	0.153	0.114	<0.000396	<0.000419	<0.000398	<0.000259
	MW-131	Oct-17		0.00185	0.0262	<0.0852	0.00286	<0.000307	<0.000372	0.0627	<0.265	<0.000396	<0.000419	<0.000398	<0.000259
	MW-131	Oct-19		0.00269	0.0141	**0.312**	0.00315	<0.000307	<0.000372	0.232	**0.993**	<0.000396	<0.000419	<0.000398	<0.000259
	MW-131	Jun-20		<0.00785	0.0121 J	**0.242**	<0.00625	<0.00590	<0.0150	0.150	**0.786**	<0.00745	<0.00590	<0.00950	<0.0117
	MW-133	Nov-14		<0.0360	0.0840 J	0.0380 J	<0.0360	<0.0310	<0.0370	0.100 J	0.220 J	<0.0400	<0.0420	<0.0400	<0.0260
	MW-133	Apr-15		<0.0360	0.0451 J	<0.0340	<0.0360	<0.0310	<0.0370	<0.0780	<0.110	<0.0400	<0.0420	<0.0400	<0.0260
	MW-134	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-134	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Apr-19	FD	<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	0.00106 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-134	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-134	Jun-20	FD	<0.000157 J4	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-134	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-134	Jun-20	FD	<0.000157 J4	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-134	Oct-20		<0.000157	<0.0000993	<0.000174	0.000176 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-134	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-135	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-135	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-135	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-135	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-135	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-135	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-145	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-145	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-146	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-147	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-148	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RA-4196	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4196	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	RA-4196	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4196	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4196	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RA-4196	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RA-4798	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4798	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	RA-4798	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4798	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-4798	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RA-4798	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RW-12R	Apr-17		<0.00180	0.0809	0.00177 J	0.0104	<0.00154	<0.00186	0.00354 J	0.0257	<0.00198	<0.00210	<0.00199	<0.00130
	RW-12R	Apr-18		0.00125	0.0634	<0.000341	0.00564	<0.000307	<0.000372	0.00157	0.00648	<0.000396	<0.000419	<0.000398	<0.000259
	RW-12R	Apr-19		0.000615 J	0.0279	0.000476 J	0.00360	<0.000307	<0.000372	0.000866 J	0.00643	<0.000396	<0.000419	<0.000398	<0.000259
	RW-12R	Jun-20		<0.000157	0.0304	0.000522 J	0.00414	<0.000118	<0.000300	0.000997 J	0.00605	<0.000149	<0.000118	<0.000190	<0.000234
	RW-13R	Apr-16		0.00124	0.0183	0.0139	0.00270	<0.000307	<0.000372	0.0175	0.108	<0.000396	<0.000419	<0.000398	<0.000259
	RW-13R	Apr-18		0.00193	0.0319	0.00159	0.00378	<0.000307	<0.000372	0.00322	0.0299	<0.000396	<0.000419	<0.000398	<0.000259
	RW-18A	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-18A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-18A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-18A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RW-20	Apr-15		0.00846 J	0.0980	0.0590	0.00931 J	<0.00310	<0.00370	0.211	**1.35**	<0.00400	<0.00420	<0.00400	<0.00260
	RW-22	Apr-15		0.00856 J	0.103	0.0952	0.00967 J	<0.00310	<0.00370	0.216	**0.945**	<0.00400	<0.00420	<0.00400	<0.00260
NCL	MW-18	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-18	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-45	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-45	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-45	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-45	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-45	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-45	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-53	Apr-16		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000780	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-53	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-53	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-53	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-53R	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-54A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-54A	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-54A	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-54A	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-54A	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-54A	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-54B	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	MW-54B	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	MW-54B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-54B	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-55	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-55	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-55	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-55	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-55	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-55	Oct-20		<0.00157	<0.000993	<0.00174	<0.00125	<0.00118	<0.00300	<0.00278	<0.00174	<0.00149	<0.00118	<0.00190	<0.00234
	MW-56	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-56	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-56	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-56	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-108	Apr-18		<0.00902	0.0319	<0.00852	<0.00912	<0.00768	<0.00930	<0.0103	0.0646 J	<0.00990	<0.0105	<0.00995	<0.00648
	MW-108	Oct-18		0.00413 J	0.0373	0.00363 J	0.00781	<0.00154	<0.00186	0.00660	0.0888	<0.00198	<0.00210	<0.00199	<0.00130
	MW-108	Apr-19		<0.00180	0.0369	0.00282 J	0.00648	<0.00154	<0.00186	0.00475 J	0.0691	<0.00198	<0.00210	<0.00199	<0.00130
	MW-108	Oct-19		0.00398 J	0.0308	0.00221 J	0.00704	<0.00154	<0.00186	0.00475 J	0.0643	<0.00198	<0.00209	0.00276 JB	<0.00130
	MW-108	Jun-20		0.00177 J	0.0205	0.00120 J	0.00388 J	<0.000590	<0.00150	0.00293 J	0.0415	<0.000745	<0.000590	<0.000950	<0.00117
	MW-108	Oct-20		<0.000785	0.00864	<0.000870	0.00187 J	<0.000590	<0.00150	0.00141 J	0.0176	<0.000745	<0.000590	<0.000950	<0.00117

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
NCL	NCL-31	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-31	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-31	Apr-19		<0.000361	<0.000349 J4	<0.000341	0.000752 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-31	Oct-19		<0.000361	<0.000349	<0.000341	0.00102	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	0.000508 JB	<0.000259
	NCL-31	Jun-20		<0.000157	0.000144 J	0.000287 J	<0.000125	<0.000118	<0.000300	<0.000278	0.000954 J	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-31	Oct-20		<0.000157	<0.0000993	0.000396 J	<0.000125	<0.000118	<0.000300	<0.000278	0.00123 J	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-32	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-32	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-32	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-32	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-32	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-32	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-33	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-33	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-33	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-33	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-33	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-33	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-34A	Apr-18		0.00788 J	0.100	<0.00341	0.0188	<0.00307	<0.00372	<0.00412	0.0390	<0.00396	<0.00419	<0.00398	<0.00259
	NCL-34A	Oct-18		0.00458 J	0.0768	<0.00341	0.0136	<0.00307	<0.00372	<0.00412	0.0266 J	<0.00396	<0.00419	<0.00398	<0.00259
	NCL-34A	Apr-19		<0.00722	0.0780	<0.00682	0.0159 J	<0.00614	<0.00744	<0.00824	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	NCL-34A	Oct-19		0.00587	0.0953	<0.00170	0.0158	<0.00154	<0.00186	<0.00206	0.0175	<0.00198	<0.00209	<0.00199	<0.00130
	NCL-34A	Jun-20		0.00420 J	0.0686	<0.00348	0.0164 J	<0.00236	<0.00600	<0.00556	0.0335 J	<0.00298	<0.00236	<0.00380	<0.00468
	NCL-44	Apr-18		<0.000361	<0.000349	<0.000341	0.000372 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-44	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-44	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-44	Oct-19		<0.000361	<0.000349	<0.000341	0.000450 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-44	Jun-20		<0.000157	<0.0000993	<0.000174	0.000413 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-44	Oct-20		<0.000157	<0.0000993	<0.000174	0.000615 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	NCL-49	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Apr-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Oct-18	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Apr-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Oct-19	FD	<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NCL-49	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-49	Jun-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-49	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NCL-49	Oct-20	FD	<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
North Refinery	MW-23	Apr-18		<0.0361	0.213	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-23	Oct-18		<0.0361	0.176	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-23	Apr-19		<0.0361	0.251 J4	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-23	Oct-19		0.00955 J	0.123	<0.00341	0.0129	<0.00307	<0.00372	<0.00412	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259
	MW-23	Jun-20		0.00903 JJ4	0.165	<0.00174	0.0132	<0.00118	<0.00300	<0.00278	<0.00174	<0.00149	<0.00118	<0.00190	<0.00234
	MW-23	Oct-20		0.00844 J	0.153	<0.00174	0.0128	<0.00118	<0.00300	<0.00278	<0.00174	<0.00149	<0.00118	<0.00190 J4	<0.00234
	MW-29	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-29	Oct-18		<0.000361	<0.000349	<0.000341	0.000405 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-29	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-29	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412 J4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-29	Jun-20		<0.000157	<0.0000993	<0.000174	0.000143 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-29	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-39	Apr-18		0.00336	0.0461	0.0452	0.00845	<0.000307	<0.000372	0.00472	0.186	<0.000396	<0.000419	<0.000398	<0.000259
	MW-39	Oct-18		0.00199	0.0165	0.0244	0.00321	<0.000307	<0.000372	0.00321	0.0737	<0.000396	<0.000419	<0.000398	<0.000259
	MW-39	Apr-19		0.000981 J	0.0162 J4	0.0196	0.00441	<0.000307	<0.000372	0.00189	0.0550	<0.000396	<0.000419	<0.000398	<0.000259
	MW-39	Oct-19		<0.000361	0.00902	0.0149	0.00293	<0.000307	<0.000372	0.00336 J4	0.0412	<0.000396	<0.000419	<0.000398	<0.000259
	MW-39	Jun-20		<0.000157	0.00630	0.00886	0.00293	<0.000118	<0.000300	0.00195	0.0321	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-39	Oct-20		<0.000157	0.00123	0.00588	0.00199	<0.000118	<0.000300	0.000978 J	0.0174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-40	Apr-17		<0.000361	0.00806	<0.000341	0.0167	<0.000307	<0.000372	0.000732 J	0.0117	<0.000396	<0.000419	<0.000398	<0.000259
	MW-40	Apr-18		0.000605 J	0.00369	<0.000341	0.0182	<0.000307	<0.000372	0.000543 J	0.00619	<0.000396	<0.000419	<0.000398	<0.000259
	MW-40	Apr-19		<0.000361	0.00305	<0.000341	0.0150	<0.000307	<0.000372	<0.000412	0.00157 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-40	Jun-20		0.000245 J	0.00210	<0.000174	0.0121	<0.000118	<0.000300	0.000363 J	0.00241 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-41	Apr-17		<0.000361	0.000572 J	<0.000341	0.00499	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-41	Apr-18		<0.000361	<0.000349	<0.000341	0.00191	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-41	Apr-19		<0.000361	0.000966 J	<0.000341	0.00451	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-41	Jun-20		<0.000157	0.00135	<0.000174	0.00196	<0.000118	<0.000300	0.000350 J	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-42	Apr-17		<0.000361	0.00355	<0.000341	0.00553	<0.000307	<0.000372	0.000845 J	0.00365	<0.000396	<0.000419	<0.000398	<0.000259
	MW-42	Apr-18		<0.000361	0.00300	<0.000341	0.00528	<0.000307	<0.000372	0.000959 J	0.00420	<0.000396	<0.000419	<0.000398	<0.000259
	MW-42	Apr-19		<0.00180	0.00884	<0.00170	0.00496 J	<0.00154	<0.00186	<0.00206	0.0226	<0.00198	<0.00210	<0.00199	<0.00130
	MW-42	Jun-20		<0.000785 J4	0.0107	<0.000870	0.00446 J	<0.000590	<0.00150	0.00172 J	0.0535	<0.000745	<0.000590	<0.000950	<0.00117
	MW-43	Apr-18		<0.0180	0.141	**0.264**	<0.0182	<0.0154	<0.0186	0.124	**1.78**	<0.0198	<0.0210	<0.0199	<0.0130
	MW-43	Oct-18		<0.0180	0.118	**0.237**	<0.0182	<0.0154	<0.0186	0.239	**1.57**	<0.0198	<0.0210	<0.0199	<0.0130
	MW-43	Apr-19		<0.0722	0.102 JJ4	<0.0682	<0.0730	<0.0614	<0.0744	<0.0824	**0.744**	<0.0792	<0.0838	<0.0796	<0.0518
	MW-43	Oct-19		<0.0722	<0.0698	<0.0682	<0.0730	<0.0614	<0.0744	<0.0824	0.610	<0.0792	<0.0838	<0.0796	<0.0518
	MW-43	Jun-20		0.00373 J	0.0569	0.00925 J	0.00578 J	<0.00236	<0.00600 J4	0.0224	**0.712**	<0.00298	<0.00236	<0.00380	<0.00468
	MW-43	Oct-20		<0.00785	0.0559	0.0510	<0.00625	<0.00590	<0.0150	0.0676	**0.903**	<0.00745	<0.00590	<0.00950 J4	<0.0117
	MW-59	Apr-17		<0.000361	0.000538 J	<0.000341	0.00297	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-59	Apr-18		<0.000361	0.00246	<0.000341	0.00348	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-59	Apr-19		<0.000361	0.000636 J	<0.000341	0.00301	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-59	Jun-20		<0.000157 J4	0.000566 J	<0.000174	0.00133	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-60	Apr-18		<0.000361	0.00118	<0.000341	0.00378	<0.000307	<0.000372	<0.000412	0.00229 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Apr-18	FD	<0.000361	0.000948 J	<0.000341	0.00379	<0.000307	<0.000372	<0.000412	0.00196 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Oct-18		0.000837 J	0.00306	<0.000341	0.00428	<0.000307	<0.000372	0.000664 J	0.00573	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Oct-18	FD	<0.000361	0.00334	<0.000341	0.00437	<0.000307	<0.000372	0.000704 J	0.00540	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Apr-19		<0.000361	0.00120	<0.000341	0.00306	<0.000307	<0.000372	<0.000412	0.00202 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Apr-19	FD	<0.000361	0.000796 J	<0.000341	0.00305	<0.000307	<0.000372	<0.000412	0.00124 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Oct-19		<0.000361	0.000994 J	<0.000341	0.00313	<0.000307	<0.000372	<0.000412 J4	0.0114	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Oct-19	FD	<0.000361	0.000812 J	<0.000341	0.00319	<0.000307	<0.000372	<0.000412	0.0108	<0.000396	<0.000419	<0.000398	<0.000259
	MW-60	Jun-20		<0.000157 J4	0.000862 J	<0.000174	0.00171	<0.000118	<0.000300	<0.000278	0.00157 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-60	Jun-20	FD	<0.000157 J4	0.000948 J	<0.000174	0.00163	<0.000118	<0.000300	<0.000278	0.00194 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-60	Oct-20		<0.000157	0.00120	<0.000174	0.00254	<0.000118	<0.000300	<0.000278	0.00238 J	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-60	Oct-20	FD	<0.000157	0.00136	<0.000174	0.00303	<0.000118	<0.000300	<0.000278	0.00224 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-61	Apr-18		<0.0180	0.155	<0.0170	<0.0182	<0.0154	<0.0186	0.0844	0.450	<0.0198	<0.0210	<0.0199	<0.0130
	MW-61	Oct-18		<0.0180	0.140	<0.0170	<0.0182	<0.0154	<0.0186	0.0795	0.353	<0.0198	<0.0210	<0.0199	<0.0130
	MW-61	Apr-19		<0.0180	0.110	<0.0170	<0.0182	<0.0154	<0.0186	0.106	0.483	<0.0198	<0.0210	<0.0199	<0.0130
	MW-61	Oct-19		<0.0181	0.145	<0.0170	<0.0183	<0.0154	<0.0186	0.0848	0.571	<0.0198	<0.0209	<0.0199	<0.0130
	MW-61	Jun-20		<0.00785 J4	0.119	<0.00870	<0.00625	<0.00590	<0.0150	0.153	0.611	<0.00745	<0.00590	<0.00950	<0.0117
	MW-61	Oct-20		<0.00785	0.110	<0.00870	0.00816 J	<0.00590	<0.0150	0.161	**0.695**	<0.00745	<0.00590	<0.00950 J4	<0.0117

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
North Refinery	MW-62	Apr-18		<0.0361	0.228	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	**1.15**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-62	Oct-18		<0.0361	0.216	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	**0.871**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-62	Apr-19		0.00746 J	0.179	<0.00682	0.0212	<0.00614	<0.00744	<0.00824	**0.988**	<0.00792	<0.00838	<0.00796	<0.00518
	MW-62	Oct-19		0.00845 J	0.210	<0.00682	0.0209	<0.00614	<0.00744	<0.00824	**0.874**	<0.00792	<0.00838	<0.00796	<0.00518
	MW-62	Jun-20		<0.00314 J4	0.105	<0.00348	<0.00250	<0.00236	<0.00600	<0.00556	0.557	<0.00298	<0.00236	<0.00380	<0.00468
	MW-62	Oct-20		0.00412 J	0.114	0.00538 J	0.00881 J	<0.00236	<0.00600	<0.00556	**0.762**	<0.00298	<0.00236	<0.00380 J4	<0.00468
	MW-62R	Oct-20		0.00319	0.160	0.00103	0.0194	<0.000118	<0.000300	0.000571 J	0.137	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-67	Oct-17		0.00196	0.00976	<0.000341	0.00570	<0.000307	<0.000372	0.00140	0.00245 J	<0.000396	<0.000419	0.000515 J	<0.000259
	MW-67	Apr-18		0.00588	0.0323	<0.00170	0.00834	<0.00154	<0.00186	0.00261 J	0.00916 J	<0.00198	<0.00210	<0.00199	<0.00130
	MW-67	Oct-18		0.00129	0.00387	<0.000341	0.00450	<0.000307	<0.000372	<0.000412	0.00113 J	<0.000396	<0.000419	0.000424 J	<0.000259
	MW-67	Apr-19		0.00299 J	0.0188 J4	<0.00170	0.00779	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-90	Apr-18		<0.000361	0.000888 J	<0.000341	0.00471	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-90	Oct-18		<0.000361	0.00174	<0.000341	0.00606	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-90	Apr-19		<0.000361	0.000910 JJ4	<0.000341	0.00594	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-90	Oct-19		<0.000361	0.00159	<0.000341	0.00514	<0.000307	<0.000372	0.000519 JJ4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-90	Jun-20		0.000319 J	0.00509	0.000299 J	0.00725	<0.000118	<0.000300	0.000350 J	0.000299 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-90	Oct-20		0.000237 J	0.00349	0.000349 J	0.00644	<0.000118	<0.000300	0.000323 J	0.000349 J	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-91	Apr-18		<0.0361	0.122	0.138	<0.0365	<0.0307	<0.0372	**1.23**	**0.697**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-91	Oct-18		<0.0361	0.0792 J	0.164	<0.0365	<0.0307	<0.0372	**1.24**	**0.716**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-91	Apr-19		<0.0361	0.104 J4	0.187	<0.0365	<0.0307	<0.0372	**1.94**	**0.799**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-91	Oct-19		<0.0361	0.112	**0.548**	<0.0365	<0.0307	<0.0372	**7.07 J4**	**2.12**	<0.0396	<0.0419	<0.0398	<0.0259
	MW-91	Jun-20		<0.0157	0.114	**0.649**	<0.0125	<0.0118	<0.0300	**6.95**	**2.50**	<0.0149	<0.0118	<0.0190	<0.0234
	MW-92	Apr-16		0.00634	0.0510	0.0268	0.00699	<0.000307	0.000488 J	0.0173	0.188	0.000917 J	<0.000419	<0.000398	0.000399 J
	MW-92	Oct-16		<0.00722	0.0329	0.0151 J	<0.00730	<0.00614	<0.00744	<0.0156	0.110	<0.00792	<0.00838	<0.00796	<0.00518
	MW-93	Apr-17		<0.00902	0.0491	<0.00852	<0.00912	<0.00768	<0.00930	<0.0103	0.326	<0.00990	<0.0105	<0.00995	<0.00648
	MW-93	Apr-18		0.00367	0.0492	0.00452	0.00564	<0.000307	<0.000372	0.00797	0.336	<0.000396	<0.000419	<0.000398	<0.000259
	MW-93	Apr-19		0.00447	0.0695 J4	0.00409	0.00716	<0.000307	<0.000372	0.00748	0.303	<0.000396	<0.000419	<0.000398	<0.000259
	MW-93	Jun-20		<0.00314 J4	0.0394	<0.00348	<0.00250	<0.00236	<0.00600	0.0123 J	0.296	<0.00298	<0.00236	<0.00380	<0.00468
	MW-94	Oct-15		0.0219	0.0923	**0.360**	0.0283	<0.00307	<0.00372	0.553	0.574	<0.00396	<0.00419	<0.00398	<0.00259
	MW-94	Apr-16		0.0379 J	0.120	**0.387**	0.0403 J	<0.0154	<0.0186	0.687	0.615	<0.0198	<0.0210 J4	<0.0199	<0.0130
	MW-94	Oct-16		0.0207	0.104	**0.390**	0.0303	<0.00154	<0.00186	0.468	0.592	<0.00198	<0.00210	<0.00199	<0.00130
	MW-94	Apr-17		0.0553	0.0909	**0.292**	0.0317	<0.00768	<0.00930	0.435	0.460	<0.00990	<0.0105	<0.00995	<0.00648
	MW-95	Apr-17		<0.000361	<0.000349	<0.000341	0.00240	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-95	Apr-18		<0.000361	0.000352 J	<0.000341	0.00305	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-95	Apr-19		<0.000361	<0.000349 J4	<0.000341	0.00239	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-95	Jun-20		<0.000157	0.000158 J	<0.000174	0.00247	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-96	Apr-18		<0.0180	0.0996	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0210	<0.0199	<0.0130
	MW-96	Oct-18		<0.361	<0.349	<0.341	<0.365	<0.307	<0.372	<0.412	<1.06	<0.396	<0.419	<0.398	<0.259
	MW-96	Apr-19		<0.0180	0.0991 J4	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0210	<0.0199	<0.0130
	MW-96	Oct-19		<0.0181	0.0686	<0.0170	<0.0183	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0209	<0.0199	<0.0130
	MW-96	Jun-20		<0.0393	0.0797 J	<0.0435	<0.0313	<0.0295	<0.0750	<0.0695	<0.0435	<0.0373	<0.0295	<0.0475	<0.0585
	MW-96	Oct-20		<0.0393	0.0692 J	<0.0435	<0.0313	<0.0295	<0.0750	<0.0695	<0.0435	<0.0373	<0.0295	<0.0475 J4	<0.0585
	MW-98	Apr-18		<0.0180	0.141	0.0245 J	<0.0182	<0.0154	<0.0186	0.282	**1.90**	<0.0198	<0.0210	<0.0199	<0.0130
	MW-98	Oct-18		<0.0180	0.118	0.0272 J	<0.0182	<0.0154	<0.0186	0.269	**2.16**	<0.0198	<0.0210	<0.0199	<0.0130
	MW-98	Apr-19		<0.0180	0.161 J4	0.0314 J	<0.0182	<0.0154	<0.0186	0.284	**2.19**	<0.0198	<0.0210	<0.0199	<0.0130
	MW-98	Oct-19		<0.0181	0.116	0.0266 J	<0.0183	<0.0154	<0.0186	0.246	**1.87**	<0.0198	<0.0209	<0.0199	<0.0130
	MW-98	Jun-20		0.00835 J	0.140	0.0256 J	0.0139 J	<0.00590	<0.0150	0.202	**2.17**	<0.00745	<0.00590	<0.00950 J4	<0.0117
	MW-98	Oct-20		<0.00785	0.0916	0.0254 J	<0.00625	<0.00590	<0.0150	0.236	**1.88**	<0.00745	<0.00590	<0.00950 J4	<0.0117
	MW-137	Oct-17		<0.0722	0.180 J	**0.265**	<0.0730	<0.0614	<0.0744	**1.54**	**1.16**	<0.0792	<0.0838	<0.0796	<0.0518
	MW-137	Apr-18		<0.0722	0.162 J	**0.398**	<0.0730	<0.0614	<0.0744	**1.83**	**1.30**	<0.0792	<0.0838	<0.0796	<0.0518
	MW-137	Oct-18		<0.0722	0.101 J	0.165 J	<0.0730	<0.0614	<0.0744	0.977	**0.688**	<0.0792	<0.0838	<0.0796	<0.0518
	MW-137	Apr-19		<0.0722	0.127 JJ4	**0.274**	<0.0730	<0.0614	<0.0744	**1.28**	**0.821**	<0.0792	<0.0838	<0.0796	<0.0518
	MW-138	Oct-17		0.00606	0.0697	<0.00170	0.0119	<0.00154	<0.00186	0.00577	0.00565 J	<0.00198	<0.00210	<0.00199	<0.00130
	MW-138	Apr-18		0.00518	0.0680	0.00541	0.0111	<0.00154	<0.00186	0.0128	0.0492	<0.00198	<0.00210	<0.00199	<0.00130
	MW-138	Oct-18		<0.00180	0.0724	0.00635	0.00906	<0.00154	<0.00186	0.00806	0.115	<0.00198	<0.00210	<0.00199	<0.00130
	MW-138	Apr-19		0.00737	0.108 J4	0.00315 J	0.0155	<0.00154	<0.00186	0.00480 J	0.100	<0.00198	<0.00210	<0.00199	<0.00130
	RW-1R	Apr-16		0.000511 J	0.00513	0.00110	0.000968 J	<0.000307	0.00258	0.00542	0.0122	0.0250	<0.000419	**0.00959**	0.00116
	RW-1	Apr-17		0.00401 J	0.00361 J	<0.00341	0.00414 J	<0.00307	<0.00372	0.0102	<0.0106	0.0108	<0.00419	**0.00896 J**	<0.00259
	RW-1	Apr-18		0.00339	0.0336	0.00282	0.00486	<0.000307	0.00413	0.0176	0.0855	0.0173	<0.000419	**0.0169**	0.00131
	RW-1	Apr-19		0.00257	0.0296 J4	0.00412	0.00418	<0.000307	0.00384	0.0221	0.0844	0.0226	<0.000419	**0.0237**	<0.000259
	RW-2	Apr-15		0.0106	0.0813	0.0853	0.0120	<0.00310	<0.0930	0.115	0.530	<0.00400	<0.00420	**0.0326**	<0.00260
	RW-2R	Apr-16		<0.0180	0.0412 J	0.0461 J	<0.0182	<0.0154	<0.0186	0.0569 J	0.299	<0.0198	<0.0210	**0.0285 J**	<0.0130
	RW-2	Apr-17		<0.0180	0.0816	0.0183 J	<0.0182	<0.0154	**0.0218 J**	0.0430 J	0.431	<0.0198	<0.0210	**0.0249 J**	<0.0130
	RW-2	Apr-18		0.0139	0.104	0.00601	0.0148	<0.000307	0.00335	0.0312	0.446	0.00825	<0.000419	**0.00521**	<0.000259
	RW-7	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-7	Apr-18		0.00102	0.00280	0.00114	0.00386	<0.000307	<0.000372	0.00106	0.00545	<0.000396	<0.000419	<0.000398	<0.000259
	RW-7	Apr-19		<0.000361	0.000916 JJ4	<0.000341	0.00256	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-7	Jun-20		<0.000157 J4	0.00235	0.000305 J	0.00389	<0.000118	<0.000300	0.000397 J	0.00240 J	<0.000149	<0.000118	<0.000190	<0.000234
	RW-8	Apr-15		<0.00360	0.00788 J	<0.00340	0.00942 J	<0.00310	<0.00370	<0.00780	<0.0110	<0.00400	<0.00420	<0.00400	<0.00260
	RW-8	Apr-17		0.00837	0.0191	0.0112	0.0117	<0.000307	<0.000372	0.00213	0.0498	<0.000396	<0.000419	0.00110	<0.000259
	RW-9	Apr-17		<0.000361	0.00499	<0.000341	0.0175	<0.000307	<0.000372	0.00184	0.0193	<0.000396	<0.000419	<0.000398	<0.000259
	RW-9	Apr-18		0.00212	0.0130	<0.000341	0.0194	<0.000307	<0.000372	0.00218	0.0180	<0.000396	<0.000419	<0.000398	<0.000259
	RW-9	Apr-19		0.00128	0.0105 J4	<0.000341	0.0247	<0.000307	<0.000372	0.00179	0.00929	<0.000396	<0.000419	<0.000398	<0.000259
	RW-9	Jun-20		0.000462 J	0.00201	0.000387 J	0.0152	<0.000118	<0.000300	0.00108	0.00136 J	<0.000149	<0.000118	<0.000190	<0.000234
	RW-10	Apr-17		<0.000361	<0.000349	0.00299	0.000569 J	<0.000307	<0.000372	0.00119	0.00378	<0.000396	<0.000419	<0.000398	<0.000259
	RW-10	Apr-18		0.00108	<0.000349	0.00346	0.000567 J	<0.000307	<0.000372	0.00163	0.00474	<0.000396	<0.000419	<0.000398	<0.000259
	RW-10	Apr-19		<0.000361	<0.000349	0.00272	<0.000365	<0.000307	<0.000372	0.00135	0.00369	<0.000396	<0.000419	<0.000398	<0.000259
	RW-10	Jun-20		<0.000157	0.000158 J	0.00235	0.000279 J	<0.000118	<0.000300	0.00150	0.00387	<0.000149	<0.000118	<0.000190 J4	<0.000234
	RW-16B	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-16B	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-16B	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-16B	Jun-20		<0.000157	<0.0000993	0.000377 J	<0.000125	<0.000118	<0.000300	0.000428 J	0.00125 J	<0.000149	<0.000118	<0.000190	<0.000234
	RW-17A	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-17A	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-17A	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-17A	Jun-20		<0.000157 J4	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
North RO Field	MW-117	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-117	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-117	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-117	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-117	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-117	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-118	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-118	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-118	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-118	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-118	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-118	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
North RO Field	MW-119	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-119	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-119	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-119	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-119	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-119	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
South Refinery	KWB-2R	Apr-17		<0.000361	0.0121	0.000772 J	0.00279	<0.000307	<0.000372	<0.000412	0.0281	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-2R	Oct-17		0.00453	0.111	0.00977	0.00996	<0.000307	<0.000372	0.0161	0.193	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-2R	Apr-19		0.00147	0.0548	0.00500	0.00453	0.000710 J	<0.000372	0.00820	0.180	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-2R	Oct-19		0.00315	0.101	0.00608	0.00857	0.00348	<0.000372	0.0140 J4	0.115	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-5	Oct-17		0.00118	0.0134	<0.0852	0.00202	<0.000307	<0.000372	0.00156	<0.265	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-5	Apr-18		<0.0902	<0.0872	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	<0.265	<0.0990	<0.105	<0.0995	<0.0648
	KWB-5	Oct-18		<0.0902	<0.0872	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	<0.265	<0.0990	<0.105	<0.0995	<0.0648
	KWB-5	Apr-19		<0.0902	<0.0872	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	<0.265	<0.0990	<0.105	<0.0995	<0.0648
	KWB-6	Apr-17		0.00434 J	0.0737	0.0179	0.00695	<0.00154	<0.00186	0.0205	0.391	<0.00198	<0.00210	<0.00199	<0.00130
	KWB-6	Oct-17		<0.000361	0.0386	0.00804	0.00483	<0.000307	<0.000372	0.0122	0.283	<0.000396	<0.000419	<0.000398	<0.000259
	KWB-6	Apr-18		<0.00722	0.0486	0.0350	<0.00730	<0.00614	<0.00744	0.00879 J	0.258	<0.00792	<0.00838	<0.00796	<0.00518
	KWB-6	Oct-18		<0.00722	0.0234	0.0234	<0.00730	<0.00614	<0.00744	0.0126 J	0.379	<0.00792	<0.00838	<0.00796	<0.00518 J3
	MW-28	Apr-18		<0.0180	0.0501	<0.0170	<0.0182	<0.0154	<0.0186	0.0316 J	0.144 J	<0.0198	<0.0210	<0.0199	<0.0130
	MW-28	Oct-18		<0.00722	0.0117 J	<0.00682	<0.00730	<0.00614	<0.00744	<0.00824	0.0301 J	<0.00792	<0.00838	<0.00796	<0.00518
	MW-28	Apr-19		<0.0180	0.0457 J	<0.0170	<0.0182	<0.0154	<0.0186	0.0272 J	0.140 J	<0.0198	<0.0210	<0.0199	<0.0130
	MW-28	Oct-19		<0.0181	0.0947	<0.0170	<0.0183	<0.0154	<0.0186	0.0384 J	0.264	<0.0198	<0.0209	<0.0199	<0.0130
	MW-28	Jun-20		0.00113 J	0.0241	0.00154 J	0.00221 J	<0.000590	<0.00150 J4	0.0126	0.0916	<0.000745	<0.000590	<0.000950	<0.00117
	MW-28	Oct-20		<0.000785	0.0182	0.00171 J	0.00171 J	<0.000590	<0.00150	0.00882	0.0626	<0.000745	<0.000590 J4	<0.000950	<0.00117
	MW-48	Apr-18		<0.0902	0.118 J	<0.0852	<0.0912	<0.0768	<0.0930	**1.02**	**0.955**	<0.0990	<0.105	<0.0995	<0.0648
	MW-48	Oct-18		<0.0902	0.145 J	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	0.358 J	<0.0990	<0.105	<0.0995	<0.0648 J3
	MW-48	Apr-19		<0.0902	0.177 J	<0.0852	<0.0912	<0.0768	<0.0930	0.152 J	0.498 J	<0.0990	<0.105	<0.0995	<0.0648
	MW-48	Oct-19		<0.0903	0.0908 J	<0.0852	<0.0913	<0.0768	<0.0930	0.138 J	0.290 J	<0.0990	<0.105	<0.0995	<0.0648
	MW-50	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-50	Oct-18		<0.000361	<0.000349	<0.000341	0.000478 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-50	Apr-19		<0.000361	<0.000349 J4	<0.000341	0.000552 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-50	Oct-19		<0.000361	<0.000349	<0.000341	0.000448 J	<0.000307	<0.000372	<0.000412 J4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-50	Jun-20		<0.000157	<0.0000993	<0.000174	0.000485 J	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-50	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-52	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-52	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-52	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-52	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-52	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-52	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-64	Apr-18		<0.00722	0.0101 J	0.122	<0.00730	<0.00614	<0.00744	0.816	0.482	<0.00792	<0.00838	<0.00796	<0.00518
	MW-64	Oct-18		<0.00722	0.119	**1.06**	0.00971 J	<0.00614	<0.00744	**13.0**	**4.72**	<0.00792	<0.00838	<0.00796	<0.00518
	MW-64	Apr-19		<0.00722	0.102	**1.49**	0.00989 J	<0.00614	<0.00744	**15.4**	**5.39**	<0.00792	<0.00838	<0.00796	<0.00518
	MW-64	Oct-19		<0.00903	0.106	**1.14**	0.0112 J	<0.00768	<0.00930	**11.2**	**5.06**	<0.00990	<0.0105	<0.00995	<0.00648
	MW-64	Jun-20		<0.0785	0.0725 J	**1.03**	<0.0625	<0.0590	<0.150	**9.93**	**4.29**	<0.0745	<0.0590	<0.0950 J4	<0.117
	MW-64	Oct-20		<0.0785	0.0626 J	**0.794**	<0.0625	<0.0590	<0.150	**8.09**	**3.10**	<0.0745	<0.0590 J4	<0.0950	<0.117
	MW-65	Apr-18		<0.0361	0.0716 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-65	Oct-18		<0.0361	0.0881 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0206	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-65	Apr-19		<0.0361	0.0831 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-65	Oct-19		<0.0361	0.0971 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	<0.106	<0.0396	<0.0419	<0.0398	<0.0259
	MW-66	Apr-18		0.0110	0.114	<0.00341	0.0124	<0.00307	<0.00372	0.00814 J	0.0118 J	<0.00396	<0.00419	<0.00398	<0.00259
	MW-66	Oct-18		<0.00361	0.104	<0.00341	0.0118	<0.00307	<0.00372	0.00704 J	<0.0106	<0.00396	<0.00419	<0.00398	<0.00259 J3
	MW-66	Apr-19		<0.00902	0.0467	<0.00852	<0.00912	<0.00768	<0.00930	<0.0103	<0.0265	<0.00990	<0.0105	<0.00995	<0.00648
	MW-66	Oct-19		<0.00903	0.0693	<0.00852	0.00932 J	<0.00768	<0.00930	<0.0103	<0.0265	<0.00990	<0.0105	<0.00995	<0.00648
	MW-66	Jun-20		0.00824 J4	0.0851	0.00239	0.00857	<0.000118	<0.000300	0.00581	0.0145	<0.000149	<0.000118	<0.000190	<0.000234
	MW-66	Oct-20		0.00483 J	0.0513	0.00183 J	0.00634 J	<0.00118	<0.00300	0.00445 J	0.00787 J	<0.00149	<0.00118 J4	<0.00190	<0.00234
	MW-99	Apr-18		<0.0361	0.0695 J	0.0467 J	<0.0365	<0.0307	<0.0372	0.0896 J	0.332	<0.0396	<0.0419	<0.0398	<0.0259
	MW-99	Oct-18		<0.0361	0.101	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	0.358	<0.0396	<0.0419	<0.0398	<0.0259 J3
	MW-99	Apr-19		<0.0361	0.0620 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	0.379	<0.0396	<0.0419	<0.0398	<0.0259
	MW-99	Oct-19		<0.0361	0.0512 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	0.218 J	<0.0396	<0.0419	<0.0398	<0.0259
	MW-99	Jun-20		0.00233 J	0.0249	0.00630 J	0.00426 J	<0.00118	<0.00300	0.00330 J	0.0784	<0.00149	<0.00118	<0.00190	<0.00234
	MW-101	Apr-18		<0.000361	<0.000349	<0.000341	0.00111	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-101	Oct-18		<0.000361	<0.000349	<0.000341	0.000464 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-101	Apr-19		<0.000361	<0.000349	<0.000341	0.000681 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-101	Oct-19		<0.000361	0.000446 J	<0.000341	0.00131	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-101	Jun-20		<0.000157	0.000369 J	<0.000174	0.00174	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-101	Oct-20		0.000929 J	0.0157	0.000814 J	0.00403	<0.000118	<0.000300	0.00858	0.0779	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-102	Apr-18		<0.180	<0.174	<0.170	<0.182	<0.154	<0.186	<0.206	<0.530	<0.198	<0.210	<0.199	<0.130
	MW-102	Oct-18		<0.180	<0.174	<0.170	<0.182	<0.154	<0.186	0.889	<0.530	<0.198	<0.210	<0.199	<0.130
	MW-102	Apr-19		0.00897	0.0534	0.0430	0.0117	<0.000307	<0.000372	0.169	0.405	<0.000396	<0.000419	<0.000398	<0.000259
	MW-102	Oct-19		<0.0181	0.0774	0.0825	<0.0183	<0.0154	<0.0186	0.238	0.532	<0.0198	<0.0209	<0.0199	<0.0130
	MW-102	Jun-20		<0.0157	0.0356 J	<0.0174	<0.0125	<0.0118	<0.0300	0.0484 J	0.188 J	<0.0149	<0.0118	<0.0190	<0.0234
	MW-102	Oct-20		<0.0157	0.0310 J	0.0274 J	<0.0125	<0.0118	<0.0300	0.0746 J	0.254 J	<0.0149	<0.0118 J4	<0.0190	<0.0234
	MW-103	Apr-17		<0.0180	0.0295 J	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0210	<0.0199	<0.0130
	MW-103	Apr-18		0.00391	0.0425	0.00461	0.00527	<0.000307	<0.000372	0.0408	0.0124	<0.000396	<0.000419	<0.000398	<0.000259
	MW-103	Apr-19		<0.00722	0.0303	<0.00682	<0.00730	<0.00614	<0.00744	0.0347	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	MW-103	Jun-20		<0.00314	0.0304	<0.00348	0.00370 J	<0.00236	<0.00600	0.0121 J	<0.00348	<0.00298	<0.00236	<0.00380 J4	<0.00468
	MW-104	Apr-18		0.000615 J	0.00374	<0.000341	0.0369	<0.000307	<0.000372	0.000415 J	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Apr-18	FD	<0.00180	0.00355 J	<0.00170	0.0292	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-104	Oct-18		0.000466 J	0.00317	<0.000341	0.0354	<0.000307	<0.000372	0.000463 J	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Oct-18	FD	<0.00180	0.00273 J	<0.00170	0.0303	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	MW-104	Apr-19		0.000445 J	0.00152	<0.000341	0.0443	<0.000307	<0.000372	0.000567 J	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Apr-19	FD	<0.000361	0.00179	<0.000341	0.0413	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Oct-19		<0.000361	0.00250	<0.000341	0.0390	0.000337 J	<0.000372	0.000515 JJ4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Oct-19	FD	0.000506 J	0.00197	<0.000341	0.0404	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-104	Jun-20		0.000349 J	0.00223	<0.000174	0.0437	<0.000118	<0.000300	0.000324 J	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-104	Jun-20	FD	0.000293 J	0.00216	<0.000174	0.0367	<0.000118	<0.000300 J4	0.000403 J	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-104	Oct-20		0.000360 J	0.00184	0.000239 J	0.0385	<0.000118	<0.000300	<0.000278	0.000239 J	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-104	Oct-20	FD	0.000164 J	0.00195	0.000193 J	0.0389	<0.000118	<0.000300	<0.000278	0.000193 J	<0.000149	<0.000118	<0.000190 J4	<0.000234
	MW-105	Apr-18		<0.0361	0.0758 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	0.304	<0.0396	<0.0419	<0.0398	<0.0259
	MW-105	Oct-18		<0.0361	0.0508 J	<0.0341	<0.0365	<0.0307	<0.0372	<0.0412	0.277 J	<0.0396	<0.0419	<0.0398	<0.0259
	MW-105	Apr-19		0.00295	0.0306	<0.0170	0.00685	<0.000307	<0.000372	0.0155	0.239	<0.000396	<0.000419	<0.000398	<0.000259
	MW-105	Oct-19		<0.0181	0.0321 J	<0.0170	<0.0183	<0.0154	<0.0186	<0.0206	0.308	<0.0198	<0.0209	<0.0199	<0.0130
	MW-105	Jun-20		<0.00785 J4	0.0301 J	<0.00870	0.00775 J	<0.00590	<0.0150	0.0150 J	0.237	<0.00745	<0.00590	<0.00950	<0.0117
	MW-105	Oct-20		<0.00785	0.0302 J	<0.00870	<0.00625	<0.00590	<0.0150	0.0187 J	0.371	<0.00745	<0.00590 J4	<0.00950	<0.0117

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	Well ID	Date	Dup													
South Refinery	MW-106	Apr-18		<0.0722	<0.0698	<0.0682	<0.0730	<0.0614	<0.0744	0.237	0.299 J	<0.0792	<0.0838	<0.0796	<0.0518
	MW-106	Oct-18		<0.180	<0.174	<0.170	<0.182	<0.154	<0.186	0.250 J	<0.530	<0.198	<0.210	<0.199	<0.130
	MW-106	Apr-19		<0.180	0.321 J	<0.170	<0.182	<0.154	<0.186	<0.206	<0.530	<0.198	<0.210	<0.199	<0.130
	MW-106	Oct-19		<0.0181	0.0444 J	<0.0170	<0.0183	<0.0154	<0.0186	0.158	0.196	<0.0198	<0.0209	<0.0199	<0.0130
	MW-106	Jun-20		<0.0157	0.0380 J	<0.0174	<0.0125	<0.0118	<0.0300	0.313	0.173 J	<0.0149	<0.0118	<0.0190	<0.0234
	MW-106	Oct-20		<0.0314	0.0426 J	0.0359 J	<0.0250	<0.0236	<0.0600	0.295	0.289 J	<0.0298	<0.0236	<0.0380 J4	<0.0468
	MW-107	Oct-16		0.00182 J	0.0693	0.00265 J	0.00592	<0.00154	<0.00186	0.00800 J	0.0112 J	<0.00198	<0.00210	<0.00199	<0.00130
	MW-107	Apr-17		<0.0180	0.0528	<0.0170	<0.0182	<0.0154	<0.0186	<0.0206	<0.0530	<0.0198	<0.0210	<0.0199	<0.0130
	MW-107	Apr-18		0.00377	0.0857	0.00279	0.00830	<0.000307	<0.000372	0.0142	0.0159	<0.000396	<0.000419	<0.000398	<0.000259
	MW-107	Apr-19		<0.0902	<0.0872	<0.0852	<0.0912	<0.0768	<0.0930	<0.103	<0.265	<0.0990	<0.105	<0.0995	<0.0648
	MW-109	Apr-18		<0.00722	0.0646	<0.00682	0.00760 J	<0.00614	<0.00744	0.0208	0.0257 J	<0.00792	<0.00838	<0.00796	<0.00518
	MW-109	Oct-18		<0.00722	0.0670	<0.00682	0.00812 J	<0.00614	<0.00744	0.0204	0.0220 J	<0.00792	<0.00838	<0.00796	<0.00518 J3
	MW-109	Apr-19		<0.00722	0.0536	<0.00682	0.00762 J	<0.00614	<0.00744	0.0122 J	<0.0212	<0.00792	<0.00838	<0.00796	<0.00518
	MW-109	Oct-19		0.00260 J	0.0500	<0.00170	0.00620	<0.00154	<0.00186	0.0151 J4	0.0136 J	<0.00198	<0.00209	<0.00199 J4	<0.00130
	MW-109	Jun-20		<0.00157	0.0596	<0.00174	0.00604 J	<0.00118	<0.00300	0.0221	0.0238 J	<0.00149	<0.00118	<0.00190	<0.00234
	MW-109	Oct-20		0.00220 J	0.0463	<0.00174	0.00621 J	<0.00118	<0.00300	0.0123	0.0114 J	<0.00149	<0.00118 J4	<0.00190	<0.00234
	MW-110	Apr-18		0.00395	0.0577	0.000580 J	0.00884	<0.000307	<0.000372	0.00447	0.0582	<0.000396	<0.000419	<0.000398	<0.000259
	MW-110	Oct-18		<0.000361	0.00579	<0.000341	0.00300	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-110	Apr-19		0.000715 J	0.00393	<0.000341	0.00317	<0.000307	<0.000372	0.000544 J	0.00169 J	<0.000396	<0.000419	<0.000398	<0.000259
	MW-110	Oct-19		<0.000361	0.000373 J	<0.000341	0.000943 J	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-110	Jun-20		<0.000157	0.00560	<0.000174	0.00314	<0.000118	<0.000300	<0.000278	0.00123 J	<0.000149	<0.000118	<0.000190	<0.000234
	MW-110	Oct-20		<0.000157	0.000270 J	<0.000174	0.00114	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-139	Oct-19		0.000506 J	0.00877	<0.000341	0.00686	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-139	Jun-20		<0.000157	0.000176 J	<0.000174	0.00734	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-139	Oct-20		<0.000157	<0.0000993	<0.000174	0.00597	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	RA-313	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-313	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-313	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RA-313	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	RW-4	Apr-17		<0.00180	0.00532	<0.00170	0.00213 J	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	RW-4	Apr-18		<0.000361	0.00113	<0.000341	0.00254	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	RW-4	Apr-19		0.00127	0.0120	0.000454 J	0.00403	<0.000307	<0.000372	0.000772 J	0.00192 J	<0.000396	<0.000419	<0.000398	<0.000259
	RW-4	Jun-20		<0.000157	0.00881	0.00105	0.00611	<0.000118	<0.000300	0.00557	0.00375	<0.000149	<0.000118	<0.000190	<0.000234
	RW-5R	Apr-15		0.00606 J	0.0598	**0.522**	0.00691 J	<0.00310	<0.00370	**2.26**	**1.91**	<0.00400	<0.00420	<0.00400	<0.00260
	RW-5R	Apr-16		0.0117 J	0.110	**0.570**	0.0130 J	<0.00614	<0.00744	**2.51**	**2.25**	<0.00792	<0.00838	<0.00796	<0.00518
	RW-6	Apr-15		0.00738 J	0.0237	0.0558	0.00944 J	<0.00310	<0.00370	0.0126 J	0.158	<0.00400	<0.00420	<0.00400	<0.00260
	RW-6R	Apr-16		0.00138	0.00731	0.00275	0.00590	<0.000307	<0.000372	0.00683	0.00747	<0.000396	<0.000419	<0.000398	<0.000259
	RW-6	Apr-18		0.00631	0.0329	0.0570	0.0148	<0.000307	<0.000372	0.448	0.150	<0.000396	<0.000419	<0.000398	<0.000259
	RW-6	Apr-19		<0.00722	0.0308	0.00804 J	0.0141 J	<0.00614	<0.00744	0.0211	0.0304 J	<0.00792	<0.00838	<0.00796	<0.00518
	RW-15C	Apr-17		0.0168 J	0.296	**0.472**	0.0194 J	<0.00768	<0.00930	0.172	**5.39**	<0.00990	<0.0105	<0.00995	<0.00648
	RW-15C	Apr-18		0.00683	0.190	0.0285	0.0114	<0.000307	<0.000372	0.111	**3.01**	<0.000396	<0.000419	<0.000398	<0.000259
	RW-15C	Apr-19		0.0134	0.215	0.00812 J	0.0148	<0.00307	<0.00372	0.0871	**1.05**	<0.00396	<0.00419	<0.00398	<0.00259
South RO Field	MW-114	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-114	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-114	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-114	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-114	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-114	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-115	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-115	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259 J3
	MW-115	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-115	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-115	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-115	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
	MW-116	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-116	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-116	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-116	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412 J4	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-116	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-116	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118 J4	<0.000190	<0.000234
TEL	MW-49	Apr-18		0.00413 J	0.0427	<0.00341	0.00648 J	<0.00307	<0.00372	0.00637 J	0.133	<0.00396	<0.00419	<0.00398	<0.00259
	MW-49	Oct-18		0.00396 J	0.0426	0.00182 J	0.00700	<0.00154	<0.00186	0.00918	0.132	<0.00198	<0.00210	<0.00199	<0.00130
	MW-49	Apr-19		0.00321 J	0.0333 J4	0.00242 J	0.00534	<0.00154	<0.00186	0.00550	0.114	<0.00198	<0.00210	<0.00199	<0.00130
	MW-49	Oct-19		<0.00181	0.0473	0.00243 J	0.00340 J	<0.00154	<0.00186	0.00941	0.122	<0.00198	<0.00209	<0.00199	<0.00130
	MW-49	Jun-20		0.00395 J	0.0462	<0.00348	0.00708 J	<0.00236	<0.00600	0.00895 J	0.179	<0.00298	<0.00236	<0.00380	<0.00468
	MW-49	Oct-20		<0.00314	0.0359	<0.00348	0.00550 J	<0.00236	<0.00600	<0.00556	0.113	<0.00298	<0.00236	<0.00380	<0.00468
	TEL-1	Apr-18		<0.000361	<0.000349	0.00136	0.000579 J	<0.000307	<0.000372	0.000872 J	0.00223 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-1	Oct-18		<0.00180	<0.00174	<0.00170	<0.00182	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00210	<0.00199	<0.00130
	TEL-1	Apr-19		<0.000361	<0.000349	0.00126	0.000516 J	<0.000307	<0.000372	0.000600 J	0.00126 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-1	Oct-19		<0.000361	<0.000349	0.00196	0.000685 J	<0.000307	<0.000372	0.000961 J	0.00284 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-1	Jun-20		<0.000157	0.000241 J	0.00155	0.000692 J	<0.000118	<0.000300	0.000961 J	0.00294 J	<0.000149	<0.000118	<0.000190	<0.000234
	TEL-2	Apr-18		<0.00361	0.0322	<0.00341	0.00651 J	<0.00307	<0.00372	0.0134	0.0962	<0.00396	<0.00419	<0.00398	<0.00259
	TEL-2	Oct-18		<0.00902	0.0429	<0.00852	<0.00912	<0.00768	<0.00930	0.0209 J	0.123	<0.00990	<0.0105	<0.00995	<0.00648
	TEL-2	Apr-19		<0.00361	0.0223	<0.00341	0.00395 J	<0.00307	<0.00372	0.0113	0.0843	<0.00396	<0.00419	<0.00398	<0.00259
	TEL-2	Oct-19		<0.00361	0.0242	<0.00341	<0.00365	<0.00307	<0.00372	0.00920 J	0.0638	<0.00396	<0.00419	<0.00398	<0.00259
	TEL-2	Jun-20		<0.00157	0.0150	<0.00174	0.00313 J	<0.00118	<0.00300	0.00510 J	0.0489	<0.00149	<0.00118	<0.00190	<0.00234
	TEL-3	Apr-18		0.00174	0.00998	0.00313	0.0117	<0.000307	<0.000372	0.00394	0.0219	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-3	Apr-19		0.00189	0.0115	0.00165	0.00962	<0.000307	<0.000372	0.00166	0.00882	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-3	Oct-19		0.00152	0.0154	0.00191	0.00654	<0.000307	<0.000372	0.00150	0.0142	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-3	Oct-20		0.00244	0.0255	0.00640	0.00749	<0.000118	<0.000300	0.00449	0.0505	<0.000149	<0.000118	<0.000190 J4	<0.000234
	TEL-4	Apr-18		0.00236	0.0295	<0.000341	0.0105	<0.000307	<0.000372	0.00124	0.00408	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Apr-18	FD	0.00245	0.0299	<0.000341	0.0111	<0.000307	<0.000372	0.00126	0.00401	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Oct-18		0.00120	0.0195	<0.000341	0.00981	<0.000307	<0.000372	<0.000412	0.00185 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Oct-18	FD	0.00148	0.0230	<0.000341	0.0115	<0.000307	<0.000372	<0.000412	0.00221 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Apr-19		0.00103	0.0117	<0.000341	0.00952	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Apr-19	FD	0.00114	0.0120	<0.000341	0.00981	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Oct-19		<0.00181	0.0102	<0.00170	<0.00183	<0.00154	<0.00186	<0.00206	<0.00530	<0.00198	<0.00209	<0.00199	<0.00130
	TEL-4	Oct-19	FD	<0.000361	0.0109	<0.000341	0.0105	<0.000307	<0.000372	0.000648 J	0.00125 J	<0.000396	<0.000419	<0.000398	<0.000259
	TEL-4	Jun-20		<0.000785	0.00519	<0.000870	0.00914	<0.000590	<0.00150	<0.00139	<0.000870	<0.000745	<0.000590	<0.000950	<0.00117
	TEL-4	Jun-20	FD	0.000859 J	0.00690	0.000275 J	0.0111	<0.000118	<0.000300	0.000640 J	0.00211 J	<0.000149	<0.000118	<0.000190	<0.000234
	TEL-4	Oct-20		<0.000785	0.00405 J	<0.000870	0.00754	<0.000590	<0.00150	<0.00139	<0.000870	<0.000745	<0.000590	<0.000950	<0.00117
	TEL-4	Oct-20	FD	0.000616 J	0.00460	0.000209 J	0.00930	<0.000118	<0.000300	0.000395 J	0.00117 J	<0.000149	<0.000118	<0.000190	<0.000234
TMD	MW-8	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-8	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-8	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-8	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-16	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-16	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-16	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-16	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234

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Appendix C, Table C.4 - Summary of Groundwater Analytical Data - Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group:	Volatile Organic Compounds											
				Analyte:	n-Butyl-benzene	N-Propyl-benzene	o-Xylene	sec-Butyl-benzene (2-Phenyl-butane)	Styrene	Tetra-chloroethene	Toluene	Total Xylenes	trans-1,2-Dichloroethene	trans-1,3-Di-chloropropene	Tri-chloroethene	Vinyl Chloride
				Units:	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL:	1.00	0.660	0.193	2.00	0.100	0.00500	1.00	0.620	0.100	0.00471	0.00500	0.00200
				CGWSL Source:	WQCC TW	WQCC TW	WQCC TW	USEPA TW	WQCC HH	WQCC HH	WQCC HH	WQCC HH	WQCC HH	USEPA TW	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**													
TMD	MW-20	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-20	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-20	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-20	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-21	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-21	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-21	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-21	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-21	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-21	Oct-20		<0.000785	<0.000497	<0.000870	<0.000625	<0.000590	<0.00150	<0.00139	<0.000870	<0.000745	<0.000590	<0.000950	<0.00117
	MW-25	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-25	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-25	Apr-19		<0.000361	<0.000349 J4	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-25	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-26	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-26	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-26	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-26	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-27	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-27	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-27	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-27	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-46R	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-46R	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-46R	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-46R	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-46R	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-46R	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-68	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-68	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-68	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-68	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-71	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-71	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-71	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-71	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	MW-89	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-89	Apr-18		<0.000361	<0.000349	0.000421 J	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-89	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	MW-89	Jun-20		<0.000157	<0.0000993	0.000664 J	<0.000125	<0.000118	<0.000300	<0.000278	0.000664 J	<0.000149	<0.000118	<0.000190	<0.000234
	NP-1	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-1	Oct-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-1	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-1	Oct-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-1	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190	<0.000234
	NP-1	Oct-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	0.000456 J	<0.000149	<0.000118	<0.000950	<0.000234
	NP-6	Apr-13		<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0150	<0.00500	<0.00500	<0.00500	<0.00200
	NP-6	Apr-15		<0.000360	<0.000350	<0.000340	<0.000360	<0.000310	<0.000370	<0.000780	<0.00110	<0.000400	<0.000420	<0.000400	<0.000260
	NP-6	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	NP-6	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
Upgradient	UG-1	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-1	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-1	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-1	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	UG-2	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-2	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-2	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-2	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	UG-3R	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-3R	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-3R	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-3R	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234
	UG-4	Apr-17		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-4	Apr-18		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-4	Apr-19		<0.000361	<0.000349	<0.000341	<0.000365	<0.000307	<0.000372	<0.000412	<0.00106	<0.000396	<0.000419	<0.000398	<0.000259
	UG-4	Jun-20		<0.000157	<0.0000993	<0.000174	<0.000125	<0.000118	<0.000300	<0.000278	<0.000174	<0.000149	<0.000118	<0.000190 J4	<0.000234

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1, Tap Water Screening Level
USEPA TW	United States Environmental Protection Agency Tap Water Screening Level, "Regional Screening Levels (RSL) Summary Table", November 2020
USEPA MCL	United States Environmental Protection Agency Maximum Contaminant Level, "Regional Screening Levels (RSL) Summary Table", November 2020
WQCC Dom	NMED Groundwater standard for domestic exposure, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote	
B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
Q	Sample was prepared and/or analyzed past recommended holding time.
V3	Internal standard exhibited poor recovery due to sample matrix interference; analytical result biased high.

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Cross-Gradient	KWB-13	Apr-17		526	180	0.803	1.18	200	**2390**	**3600**	**16.1**	<0.00180	
	KWB-13	Apr-18		558	136	0.704	1.66	227	**2470**	**3580**	**15.3**	<0.00180	
	KWB-13	Apr-19		630	125	0.605	1.69	220	**2470**	**3580**	**14.0**	<0.00180	
	KWB-13	Jun-20		598	121	0.791	2.10	169	**2430**	**3710**	**14.9**	<0.00180	
	MW-136	Apr-18		666	**352**	**1.61**	2.74	147	**2640**	**4270**	**10.3**	<0.00180	
	MW-136	Oct-18		689	**327**	**1.82**	3.52	148	**2610**	**4250**	7.86	0.0359	
	MW-136	Apr-19		688	**284 B**	**1.69**	2.83	144	**2680**	**4150**	4.12 J6	0.00264 J	
	MW-136	Oct-19		630	**280**	**1.73**	2.75	140	**2520**	**4100**	2.38	<0.00180	
	MW-136	Jun-20		631	**300**	**1.62**	2.53	139	**2370**	**4290**	**13.2**	<0.00180	
	MW-136	Oct-20		640	**290**	1.54	2.55	148	**2150**	**4180**	**14.4**	<0.00180	
	NP-5	Apr-13		465	**413**	**2.58**	<0.400	253	**3090**	**5980**	2.33		
	NP-5	Apr-15		448	**993**	**2.13**	0.484 J	209	**3030**	**6060 J**	1.38		
	NP-5	Apr-17		514	**444**	**1.63**	0.422 J	212	**3770**	**4810**	2.22		
	NP-5	Apr-19		529	**310**	**2.16**	0.320 J	206	**3370**	**5240**	1.06		
	RA-3156	Apr-17		337	**568**	0.668	2.41	292	**1080**	**2400**	0.330 J		
	RA-3156	Apr-18		341	**813**	0.470	2.63	444	**1020**	**2580**	<0.0197 J6		
	RA-3156	Apr-19		83.5	**807**	0.751	0.679 J	87.0	**1650**	**3240**	1.50		
	RA-3156	Jun-20		180	**280**	0.313	2.62	97.8	**603**	**1250**	<0.0500		
Evaporation Ponds	MW-1R	Apr-17		763	**2880**	0.736	5.11	1830	**3010**	**9180**	0.402 J		
	MW-1R	Apr-18		623 V	**2200**	0.679	4.56	1520 V	**2740**	**6900**	0.0640 J		
	MW-1R	Apr-19		407	**1160**	0.710	3.80	1050	**2000**	**4980**	<0.0197		
	MW-1R	Jun-20		540	**1430**	0.732	4.01	831	**2060**	**3200**	<0.0500		
	MW-2A	Apr-18		702	**6270**	1.35	5.75	4870	**5800**	**18800**	0.0470 J		
	MW-2A	Oct-18		512	**4270**	**1.89**	5.36	3110	**4430**	**13300 J4**	0.0330 J		
	MW-2A	Apr-19		652	**5600**	**1.93**	5.50	3930	**5430**	**15800**	<0.0197		
	MW-2A	Oct-19		585	**2180**	**2.94**	4.21	1470	**2860**	**7000**	0.171		
	MW-2A	Jun-20		487	**879**	**2.70**	3.28	610	**1730**	**3960**	<0.0500		
	MW-2A	Oct-20		292	**1240**	**2.96**	3.46	908	**1860**	**4770**	0.0609 J		
	MW-3	Apr-18		606	**1170**	**1.90**	4.99	916	**2420**	**5030**	0.249		
	MW-3	Apr-18	FD	626	**1150**	**1.87**	5.03	869	**2520**	**5040**	0.212		
	MW-3	Oct-18		591	**1110**	**1.91**	5.19	856	**2610**	**4370**	0.535		
	MW-3	Oct-18	FD	620	**1060**	**1.67**	5.74	832	**2440**	**4820 Q**	0.481		
	MW-3	Apr-19		579	**1140**	**1.96**	4.89	771	**2480**	**5510**	0.156		
	MW-3	Apr-19	FD	603	**1230**	**1.86**	4.92	774	**2530**	**5450**	0.157		
	MW-3	Oct-19		517	**1060**	**2.38**	7.63	840	**1680**	**4290**	<0.0197		
	MW-3	Oct-19	FD	540	**1190**	**2.53**	7.51	836	**1970**	**4950**	<0.0197		
	MW-3	Jun-20		553	**1280**	**2.40**	7.64	818	**2140**	**5200**	0.0662 JB		
	MW-3	Jun-20	FD	553	**1290**	**2.52**	7.54	827	**2260**	**4970 J4**	<0.0500		
	MW-3	Oct-20		514	**1250**	**1.97**	5.94	822	**1980**	**5250**	0.210		
	MW-3	Oct-20	FD	506	**939**	**1.69**	5.85	812	**1440**	**5090**	0.245 J6		
	MW-4A	Apr-18		428	**1350**	**1.99**	5.05	899	**1820**	**4170**	0.0240 J		
	MW-4A	Oct-18		415	**1300**	**1.65**	4.58	988	**1800**	**3880**	<0.0197 J6		
	MW-4A	Apr-19		418	**1450**	**1.82**	5.24	904	**1810**	**4940**	<0.0197		
	MW-4A	Oct-19		419	**1260**	**2.01**	5.80	855	**1380**	**4700**	0.0230 J		
	MW-4A	Jun-20		403	**1440**	**1.98**	4.72	962	**1890**	**4870**	<0.0500		
	MW-4A	Oct-20		415	**1350**	**2.31**	5.63	921	**1640**	**5000**	<0.0500		
	MW-4B	Apr-13		371	**928**	0.870	3.64	556	**1330**	**3660**	<1.00		
	MW-4B	Apr-15		367	**1110**	0.963	2.32	696	**1340**	**3410 J**	<0.0200		
	MW-4B	Apr-17		360	**1330**	0.985	2.55	758	**1410**	**3690**	<0.0197		
	MW-4B	Apr-19		442	**1320**	0.775	2.50	703	**1430**	**4370**	<0.0197		
	MW-5A	Apr-18		478	**3040**	**2.83**	7.82	2890	**6030**	**13700**	0.0530 J		
	MW-5A	Oct-18		415	**2800**	**1.80**	7.38	2620	**5720**	**11400**	<0.0197		
	MW-5A	Apr-19		511	**3620**	**3.03**	6.36	3740	**8110**	**14800**	<0.0197		
	MW-5A	Oct-19		494	**2760**	**3.63**	6.85	3450	**6170**	**13900**	0.138		
	MW-5A	Jun-20		286	**1810**	**3.40**	5.65	2040	**3550**	**7460**	<0.0500		
	MW-5A	Oct-20		374	**2110**	**3.84**	8.27	2280	**4220**	**9910**	<0.0500		
	MW-5B	Apr-13		473	**1840**	**2.20**	10.8	1600	**2950**	**7500**	2.93		
	MW-5B	Apr-15		482	**1590**	1.41	9.01	1580	**3510**	**5980**	<0.0200		
	MW-5B	Apr-17		420	**1560**	**1.73**	9.18	1650	**2590**	**6290**	0.0210 J		
	MW-5B	Apr-19		389	**1530**	**1.70**	9.69	1490	**2660**	**6370**	<0.0197		
	MW-5C	Apr-13		420	**639**	1.20	4.21	446	**1580**	**3620**	<1.00		
	MW-5C	Apr-15		427	**585**	0.910	3.97 J	485	**2020**	**3290**	<0.0200		
	MW-5C	Apr-17		383	**576**	0.971	3.90	500	**1740**	**3110**	<0.0197		
	MW-5C	Apr-19		390	**591**	0.896	4.11	450	**1540**	**3200**	<0.0197		
	MW-6A	Apr-17		353	**904**	**1.62**	1.38	770	**2080**	**4660**	<0.197		
	MW-6A	Apr-18		303	**763**	1.59	1.31	776	**1690**	**3330**	0.0800 J		
	MW-6A	Apr-19		340	**803**	1.38	1.38	696	**1700**	**3520**	<0.0197		
	MW-6A	Jun-20		290	**669**	1.55	1.18 J	670	**1670**	**3640**	<0.0500		
	MW-6B	Mar-13		530	**1370**	0.533	4.31	710	**1640**	**4480**	<1.00		
	MW-6B	Mar-13	FD	478	**1420**	0.814	4.87	753	**1690**	**4510**	<1.00		
	MW-6B	Apr-15		568	**1740**	0.669 J	5.09	873	**2280**	**4760**	<0.0200		
	MW-6B	Apr-17		418	**1250**	0.694	3.97	738	**1730**	**4150**	<0.197		
	MW-6B	Apr-19		462	**1140**	0.519	4.45 O1	682	**1460**	**4190**	<0.0197		
	MW-7A	Apr-18		358	**2080**	1.40	3.91	1580	**2670**	**5380**	0.140		
	MW-7A	Apr-18	FD	354	**2170**	1.41	3.89	1590	**2780**	**5430**	0.0580 J		
	MW-7A	Oct-18		343	**2070**	1.09	3.93	1580	**2840**	**6440**	<0.0197		
	MW-7A	Oct-18	FD	348	**2000**	1.10	4.24	1550	**2770**	**6530 Q**	<0.0197		
	MW-7A	Apr-19		345	**2480**	1.10	3.95	1560	**3610**	**6920**	<0.0197		
	MW-7A	Apr-19	FD	373	**1990**	1.20	4.05	1530	**2490**	**6930**	<0.0197		
	MW-7A	Oct-19		423	**2880**	1.46	5.56	2310	**3250**	**9100**	3.13		
	MW-7A	Oct-19	FD	413	**2970**	1.27	5.48	2110	**3370**	**9440**	2.88		
	MW-7A	Jun-20		345	**2000**	1.20	3.28	1560	**2670**	**6630**	<0.0500		
	MW-7A	Jun-20	FD	370	**1950**	1.18	3.54 J	1550	**2600**	**6580**	0.0594 J		
	MW-7A	Oct-20		327	**1770**	1.42	3.83	1470	**2130**	**6330**	<0.0500 J6		
	MW-7A	Oct-20	FD	315	**1550**	1.29	3.71 B	1550	**1870**	**6260**	<0.0500		
	MW-7B	Apr-13		545	**1030**	**3.09**	6.66	540	**1800**	**4280**	<1.00		
	MW-7B	Apr-15		556	**1060**	0.795	6.27	672	**2200**	**4640**	<0.0200		
	MW-7B	Apr-17		530	**1060**	0.966	6.71	652	**1750**	**4720**	0.0670 J		
	MW-7B	Apr-19		581	**1100**	0.823	6.70	581	**1910**	**4760**	<0.0197		
	MW-10	Apr-18		472	**1300**	0.857	3.75	977	**1920**	**3380**	0.0550 J		
	MW-10	Oct-18		454	**1300**	0.854	3.35	1060	**2100**	**3800**	<0.0197		
	MW-10	Apr-19		457	**1290**	0.907	3.58	925	**2000**	**5070**	<0.0197		
	MW-10	Oct-19		653	**1610**	1.06	3.61	1190	**2530**	**6090 J3**	<0.0197		
	MW-10	Jun-20		445	**1300**	0.933	3.25	982 V	**1930**	**4970**	<0.0500		
	MW-10	Oct-20		435	**1250**	0.903	3.30	949	**1710**	**5080**	<0.0500		
	MW-11A	Apr-18		1250	**9560**	0.601	20.1	5210	**3570**	**14900**	0.562		
	MW-11A	Oct-18		1110	**11000**	**3.15 J**	20.7	4520	**3140**	**17400**	<0.0197		
	MW-11A	Apr-19		1140	**9210**	1.02	18.8	4410	**3430**	**19100**	0.744		
	MW-11A	Oct-19		1060	**7880**	1.32	22.0	4280	**2760**	**17000**	<0.0197		
	MW-11A	Jun-20		1110	**8800**	0.806	19.9	4410	**3210**	**18400 J3J4**	<0.0500		
	MW-11A	Oct-20		1180	**8020**	0.454	20.2	5080	**2720**	**20200**	<0.0500		
	MW-11B	Mar-13		855	**6560**	<0.500	35.2	3340	**3030**	**15100**	<1.00		
	MW-11B	Apr-15		1070	**6000**	0.562	36.6	4040	**3860**	**12700**	<0.0200		
	MW-11B	Apr-17		979	**6050**	0.825	35.2	3660	**2890**	**14000**	<0.197		
	MW-11B	Apr-19		935	**6410**	0.899	32.2	3410	**3340**	**11600**	<0.197		

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Evaporation Ponds	MW-15	Apr-17		285	**612**	1.58	4.31	447	**1100**	**2640**	0.485 J	
	MW-15	Apr-18		477	**1040**	**1.70 J5**	5.35	657	**1720**	**3580**	0.758	
	MW-15	Apr-19		614	**1670**	1.44	5.73	667	**2770**	**4720**	1.58	
	MW-15	Jun-20		480	**1200**	0.610	5.52	563	**1440**	**3830**	<0.0500	
	MW-18A	Apr-18		683	**6680**	**2.44**	42.1	4260	**6780**	**13100**	0.0720 J	<0.00180
	MW-18A	Oct-18		674	**6810**	1.25	42.6	3820	**7270**	**17900**	<0.0197	0.00485 J
	MW-18A	Apr-19		756	**6360**	**1.85**	46.1	3870	**6740**	**17800**	<0.0197	<0.00180
	MW-18A	Oct-19		619	**5490**	**3.14**	40.1	3670	**5780**	**16000 J3**	<0.0197	<0.00180
	MW-18A	Jun-20		574	**5140**	**2.52**	33.6 O1	3030 O1V	**5780**	**15500**	<0.0500	<0.00180
	MW-18A	Oct-20		616	**4600**	**2.72**	39.3	3380	**4820**	**16800**	<0.0500	<0.00180
	MW-18B	Apr-13		592	**803**	1.10	6.32	474	**1870**	**4060**	<1.00	
	MW-18B	Apr-15		581	**763**	0.931	5.91	460	**1840**	**4410**	0.0280 J	
	MW-18B	Apr-17		576	**860**	0.797	5.91	481	**2070**	**4080**	<0.0197	
	MW-18B	Apr-19		807	**919**	0.727	8.43	506	**2030**	**4690**	<0.0197	
	MW-22A	Apr-18		473	**1780**	0.687	3.67	1290	**2270**	**4860 J3**	0.0680 J	
	MW-22A	Apr-18	FD	468	**1840**	0.738	3.57	1310	**2380**	**4320 J3**	0.0660 J	
	MW-22A	Oct-18		444	**1650**	0.677	3.37	1360	**2370**	**5730**	<0.0197	
	MW-22A	Oct-18	FD	473	**1650**	0.584	3.81	1250	**2190**	**5930 Q**	<0.0197	
	MW-22A	Apr-19		426	**1650**	0.761	3.58	1330	**2300**	**5940**	0.0230 J	
	MW-22A	Apr-19	FD	431	**1700**	0.739	3.38	1190	**2230**	**6040**	<0.0197	
	MW-22A	Oct-19		969	**5760**	0.681	6.27	3060	**3450**	**13300**	0.418	
	MW-22A	Oct-19	FD	990	**5660**	0.293	6.42	2970	**3520**	**13100**	0.414	
	MW-22A	Jun-20		575	**4500**	0.900	4.36	2610	**3310**	**11900**	0.0816 JB	
	MW-22A	Jun-20	FD	566	**4450**	1.02	4.20	2270	**3330**	**11300 J4**	<0.0500	
	MW-22A	Oct-20		458	**2770**	0.821	3.75	1920	**2450**	**7820**	0.0711 J	
	MW-22A	Oct-20	FD	453	**2290**	0.795	3.71 B	2240	**2060**	**8210**	<0.0500	
	MW-22B	Apr-13		530	**1470**	0.619	4.48	932	**2240**	**5460**	<1.00	
	MW-22B	Apr-15		477	**1400**	0.823	4.02 J	1150	**2170**	**5590**	<0.0200	
	MW-22B	Apr-17		396	**1400**	0.771	4.15	1150	**2080**	**5670**	0.408 J	
	MW-22B	Apr-19		414	**1300**	0.818	4.30	985	**2170**	**5480**	<0.197	
	MW-70	Apr-18		766	**1490**	0.694	5.51	825	**2720**	**5810**	0.0660 J	
	MW-70	Oct-18										
	MW-70	Apr-19		843	**1280**	0.623	5.99	760	**2320**	**5770**	<0.0197	
	MW-70	Oct-19										
	MW-70	Jun-20		764	**1400**	0.577	5.22	764	**2510**	**5360 J3**	<0.0500	
	MW-70	Oct-20										
	MW-72	Apr-17		670	**3460**	**6.25**	9.30	2510	**2950**	**9140**	1.56	
	MW-72	Apr-18		707	**3540**	**5.82**	8.82	2490	**3010**	**8800**	2.99	
	MW-72	Apr-19		645	**2880**	**5.61**	7.71	1850	**2740**	**8500**	2.67	
	MW-72	Jun-20		627	**2830**	**5.71**	6.56	1730	**2810**	**8060**	0.645	
	MW-73	Apr-17		571	**2390**	**2.11**	2.55	2690	**3940**	**8880**	0.313	
	MW-73	Apr-18		589	**2350**	**1.95**	2.48	2490	**4020**	**8360**	0.348	
	MW-73	Apr-19		600	**2590**	**2.95**	2.60	2330	**3350**	**9180**	4.66	
	MW-73	Jun-20		561	**2540**	**1.67**	2.29	2410	**3990**	**8860**	<0.0500	
	MW-74	Apr-18		600	**1950**	**7.01**	37.3	2280	**3700**	**7860**	6.72	
	MW-74	Oct-18		534	**1560**	**8.06**	42.9	2310	**4870**	**9420**	**171**	
	MW-74	Apr-19		582	**1400**	**8.15**	36.9	2250	**4650**	**9760**	**52.2**	
	MW-74	Oct-19		542	**1490**	**7.85**	33.4	1990	**3390**	**5720**	<0.0197	
	MW-74	Jun-20		507	**1540**	**7.75**	32.7	2260	**4190**	**7180**	**48.4**	
	MW-74	Oct-20		554	**1800**	**8.34**	35.8	2000	**3610**	**8370**	7.45	
	MW-75	Apr-18		340	**1470**	**7.64**	17.9	1350	**2000**	**4670**	1.00 J6	
	MW-75	Oct-18		345	**1370**	**7.35**	18.0	1410	**2100**	**5890 J4**	<0.0197	
	MW-75	Apr-19		348	**1410**	**7.71**	17.4	1420	**2010**	**5790**	1.56	
	MW-75	Oct-19		362	**1360**	**6.63**	15.9	1320	**1940**	**5320**	<0.0197	
	MW-75	Jun-20		366	**1470**	**7.22**	16.6	1340	**2080**	**6110**	<0.0500	
	MW-75	Oct-20		362	**1520**	**7.66**	17.9	1470	**2010**	**5680**	<0.0500	
	MW-76	Apr-18		468	**1220**	**2.86**	26.5	1200	**2300**	**5240**	0.0790 J	
	MW-76	Oct-18		464	**1130**	**2.95**	25.6	1130	**2420**	**4130**	<0.0197	
	MW-76	Apr-19		439	**1090**	**3.02**	24.9	955	**2210**	**5620**	<0.0197	
	MW-76	Oct-19		483	**1150**	**3.03**	28.8	991	**2220**	**5270**	<0.0197	
	MW-76	Jun-20		454	**1150**	**2.89**	26.2	975	**2270**	**5620**	<0.0500	
	MW-76	Oct-20		426	**1220**	**3.14**	25.7	975	**2090**	**5330**	<0.0500	
	MW-77	Apr-17		534	**393**	**2.43**	67.1	1280	**4900**	**6950**	<0.197	
	MW-77	Apr-18		521	**310**	**2.56**	68.8	1240	**3770**	**7230**	0.109	
	MW-77	Apr-19		491	**335**	**3.20**	66.0	1230	**4370**	**7850**	<0.0197	
	MW-77	Jun-20		488	**428**	**2.53**	64.2	1070	**3950**	**7430**	<0.0500	
	MW-78	Apr-17		537	98.0	**9.91**	17.4	366	**2640**	**4290**	0.372 J	
	MW-78	Apr-18		331	239	**15.3**	19.2	393	**1800**	**3730**	2.70	
	MW-78	Apr-19		343	20.4	**17.2**	13.4	81.7	**1580**	**3150**	5.82	
	MW-78	Jun-20		584	51.7	**13.9**	16.6	184	**2580**	**4460**	<0.0500	
	MW-79	Apr-18		586	**1700**	**6.56**	7.90	1130	**2240**	**5390 J3**	2.16	
	MW-79	Oct-18		679	**2020**	**6.21**	7.84	1100	**2350**	**7700**	1.44	
	MW-79	Apr-19		636	**1940**	**7.01**	7.82	1250	**2470**	**6510**	2.08	
	MW-79	Oct-19		818	**2410**	**4.70**	7.08	1160	**2320**	**7470**	<0.0197	
	MW-79	Jun-20		768	**2150**	**5.09**	6.82	1160	**2540**	**7550**	<0.0500	
	MW-79	Oct-20		726	**2180**	**5.58**	7.03	1200	**2600**	**6470**	<0.0500	
	MW-80	Apr-17		759	**2530**	**3.59**	3.53	1230	**2640**	**7920**	2.63	
	MW-80	Apr-18		506	**1190**	**2.97**	7.13	1110	**2310**	**5180 J3**	0.461	
	MW-80	Apr-19		559	**1180**	**3.03**	2.72	768	**2260**	**5120**	0.355	
	MW-80	Jun-20		620	**1210**	**2.19**	2.99	680	**1980**	**4990**	<0.0500	
	MW-81	Apr-17		560	**1370**	**7.55**	9.28	1260	**3050**	**6880**	**80.5**	
	MW-81	Apr-18		542	**1270**	**6.69**	17.9	1170	**2340**	**5600**	**19.8**	
	MW-81	Apr-19		527 O1V	**1210**	**6.81**	7.33	969 V	**2190**	**5740**	**14.7**	
	MW-81	Jun-20		441	**1050**	**5.73**	5.49	908	**1990**	**4750**	3.54	
	MW-82	Apr-17		347	**1500**	**11.4**	8.92	1400	**2380**	**5630**	0.0820 J	
	MW-82	Apr-18		391	**1420**	**11.4**	9.36	1510	**2350**	**5460**	0.734	
	MW-82	Apr-19		395	**1360**	**11.4**	8.60	1300	**2250**	**5730**	3.50	
	MW-82	Jun-20		422	**1430**	**9.31 J**	8.75	1150	**2180**	**5560**	<0.0500	
	MW-83	Apr-18		309	**1360 J3**	**4.80**	28.2	965	**2220 P1**	**4190**	0.0680 J	
	MW-83	Oct-18		562	221	**5.14**	48.6	363	**4240**	**4860**	0.495	
	MW-83	Apr-19		555	69.9	**2.81**	56.3	236	**6770**	**6470**	3.70	
	MW-83	Oct-19		536	**354**	**4.14**	64.3	370	**4520**	**7520**	<0.0197	
	MW-83	Jun-20		544	**314**	**4.63**	48.9	319	**4190**	**6810**	1.31	
	MW-83	Oct-20		349	**957**	**4.48**	31.8	659	**2380**	**5040**	<0.0500	
	MW-84	Apr-18		595	**1710**	**4.49**	7.29	1630	**4220**	**9640**	0.0630 J	
	MW-84	Oct-18		574	**1750**	**4.62**	6.34	1560	**4420**	**9300**	<0.0197	
	MW-84	Apr-19		616	**1650**	**4.26**	7.12	1540	**3990**	**9140**	0.308	
	MW-84	Oct-19		594	**1730**	**5.44**	6.51	1450	**4200**	**9080**	<0.0197	
	MW-84	Jun-20		568	**1480**	**6.24**	7.06	1400	**4710**	**9700**	<0.0500	
	MW-84	Oct-20		579	**1670**	**6.29**	6.23	1350	**4910**	**10800**	<0.0500	
	MW-86	Jun-20		544	**555**	**8.20**	8.40	806	**4170**	**8130**	<1.00	<0.0900
	MW-86	Oct-20		535	**671**	**6.03**	6.70	947	**3100**	**7830**	<0.0500	0.00261 J

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
	MW-87	Apr-18		677	**4150**	1.48	24.2	2930	**4570**	**11600**	0.0610 J	
	MW-87	Oct-18										
	MW-87	Apr-19		723	**4460**	1.13	24.7	2800	**5150**	**13700**	<0.0197	
	MW-87	Oct-19										
	MW-87	Jun-20		596	**4070**	1.41	20.7	2690	**4840**	**12500**	<0.0500	
	MW-87	Oct-20										
	MW-88	Apr-18		421 V	**1650**	1.15	3.09	1110	**2360**	**4640**	0.0750 J	
	MW-88	Oct-18										
	MW-88	Apr-19		426	**1740**	1.36	3.28	1280	**2700**	**6650**	<0.0197	
	MW-88	Oct-19										
	MW-88	Jun-20		406	**1510**	0.951	2.83	997	**2040**	**5240**	<0.0500	
	MW-88	Oct-20										
	MW-120	Apr-18		556	**1760**	**2.79**	6.26	1310	**2670**	**6480**	0.0720 J	
	MW-120	Oct-18		583 O1V	**1670**	**3.66**	2.60	1320	**3320**	**5380**	0.168	
	MW-120	Apr-19		571	**2220**	**2.91**	2.92	1500	**4500**	**6610**	0.150	
	MW-120	Oct-19		562	**1390**	**4.02**	2.70	1210	**2830**	**4680 J3**	<0.0197	
	MW-120	Jun-20		455	**1260**	**2.90**	2.23	992	**2530**	**5500**	<0.0500	
	MW-120	Oct-20		608	**1540**	**3.81**	2.67	1200	**2870**	**7000**	<0.0500	
	MW-121	Apr-18		594	**999**	**4.29**	2.88	859	**2820**	**5430**	1.15 J6	
	MW-121	Oct-18		579	**833**	**5.05**	3.25	716	**2820**	**5800**	1.06	
	MW-121	Apr-19		616	**963**	**4.45**	3.14	696	**2530**	**5490**	0.497	
	MW-121	Oct-19		554	**770**	**5.48**	3.41	637	**2530**	**5090**	1.11	
	MW-121	Jun-20		560	**752**	**5.05**	2.71	613	**2790**	**4890**	0.0855 J	
	MW-121	Oct-20		595	**690**	**4.87**	3.34	665	**2400**	**5180**	<0.0500	
	MW-122	Apr-18		368	**1170**	**3.20**	3.73	1050	**1980**	**4830**	0.137	
	MW-122	Oct-18		324	**845**	**2.32**	3.48	742	**1730**	**3860**	<0.0197	
	MW-122	Apr-19		413	**1110**	**2.74**	3.91	866	**2040**	**4750**	0.0650 J	
	MW-122	Oct-19		340	**719**	**2.10**	3.54	617	**1260**	**3660**	0.0270 J	
	MW-122	Jun-20		413	**1470**	**2.58**	4.03	1080	**2450**	**6070**	<0.0500	
	MW-122	Oct-20		353	**940**	**2.54**	3.78	737	**1590**	**4220**	<0.0500	
	MW-123	Apr-18		513	**1570**	1.13	5.10	1080	<0.0774	**4490**	0.0660 J	
	MW-123	Oct-18		519	**1390**	0.894	3.49	1150	**2040**	**4380**	<0.0197	
	MW-123	Apr-19		501	**1420**	1.16	3.63	961	**2180**	**5600**	<0.0197	
	MW-123	Oct-19		690	**2030**	1.17	4.26	1190	**2250**	**6720**	<0.0197	
	MW-123	Jun-20		513	**1420**	1.04	3.54	984	**2140**	**5380**	<0.0500	
	MW-123	Oct-20		524	**1390**	1.07	3.55	1100	**1920**	**5460**	<0.0500	
	MW-124	Apr-18		786	**3110**	1.02	6.67	1820	**3700**	**8980**	<0.0197	
	MW-124	Oct-18		798 V	**3700**	0.848	7.16	1730	**4440**	**9520**	<0.0197	
	MW-124	Apr-19		867	**3120**	0.884	6.86	1730	**3560**	**11200**	<0.0197	
	MW-124	Oct-19		753	**3140**	1.12	6.86	1630	**3500**	**9980**	<0.0197	
	MW-124	Jun-20		785	**3510**	1.01	6.50 J	1700	**4500**	**7780**	<0.0500	
	MW-124	Oct-20		758	**2490**	1.03	6.57	1840	**3030**	**9940**	<0.0500	
	OCD-1R	Apr-18		493	**1870**	**3.48**	3.79	1740	**3100**	**6760**	0.599	
	OCD-1R	Oct-18		514	**1610**	**2.61**	3.64	1310	**2760**	**4720**	0.206	
	OCD-1R	Apr-19		403	**1230**	**3.09**	3.03	977	**2250**	**5000**	0.485	
	OCD-1R	Oct-19		600	**1820**	**2.93**	4.13	1660	**3670**	**7760**	0.243	
	OCD-1R	Jun-20		599	**1640**	**2.60**	3.82	986	**2350**	**5850**	0.0815 JB	
	OCD-1R	Oct-20		500	**1070**	**2.78**	3.50	1070	**2020**	**5560**	0.0603 J	
	OCD-2A	Apr-18		530	**1160**	0.813	4.88	825	**1990**	**4530**	0.187	
	OCD-2A	Oct-18										
	OCD-2A	Apr-19		573	**1300 V**	0.874	4.73	758	**2290 V**	**5440**	0.185	
	OCD-2A	Oct-19										
	OCD-2A	Jun-20		609	**1290**	0.853	4.93	755	**2240**	**5020**	<0.0500	
	OCD-2A	Oct-20										
	OCD-3	Apr-18		842	**2110**	0.845	14.7	1070	**2750**	**6220**	0.194	
	OCD-3	Oct-18										
	OCD-3	Apr-19		347	**907**	1.15	8.85	688	**1610**	**3850**	0.0700 J	
	OCD-3	Oct-19										
	OCD-3	Jun-20		375	**585**	1.10	7.17	446	**1580**	**3150**	0.0713 JB	
	OCD-3	Oct-20										
	OCD-4	Apr-18		847	**4550**	0.759	34.0	2540	**3430**	**9500**	0.101	
	OCD-4	Oct-18										
	OCD-4	Apr-19		818	**4400**	0.820	32.4	5380	**3240**	**11300**	0.0360 JJ6	
	OCD-4	Oct-19										
	OCD-4	Jun-20		840	**5000**	0.990	33.5	2580	**3300**	**12700**	<0.0500	
	OCD-4	Oct-20										
	OCD-5	Apr-18		882	**5050**	0.765	40.7	2990	**3440**	**11300**	0.0860 J	
	OCD-5	Oct-18		834	**5130**	0.324	36.0	2690	**3570**	**11200**	<0.0197	
	OCD-5	Apr-19		843	**4840**	0.790	38.9	2580	**3300**	**12400**	<0.0197	
	OCD-5	Oct-19		843	**5240**	0.628	35.7	3010	**3080**	**11900**	<0.0197	
	OCD-5	Jun-20		824	**4770**	0.950	37.3	2660	**3490**	**10700 J4**	<0.0500	
	OCD-5	Oct-20		850	**4120**	0.702	35.8	3010	**2690**	**12100**	<0.0500	
	OCD-6	Apr-18		881	**4510**	**2.15**	16.6	2800	**2960**	**10800**	1.06	
	OCD-6	Oct-18		850	**4910**	**1.98**	16.1	2600	**3110**	**14200 J4**	<0.0197	
	OCD-6	Apr-19		931	**4710**	**2.26**	17.0	2820	**2760**	**11400**	0.837	
	OCD-6	Oct-19		754	**3180**	**2.84**	11.3	2050	**2950**	**9760**	0.0320 J	
	OCD-6	Jun-20		918	**4880**	**2.04**	15.0	2710	**3160**	**10800**	<0.0500	
	OCD-6	Oct-20		922	**4850**	**2.27**	15.8	2720	**2870**	**11400**	<0.0500	
	OCD-7AR	Apr-18		603	**2400**	**2.77**	5.90	2790	**3830**	**8960**	0.0620 J	
	OCD-7AR	Oct-18		612	**2460**	**2.45**	6.30	2520	**3680**	**10500 J4**	<0.0197	
	OCD-7AR	Apr-19		662	**2700**	**2.30**	6.31	2600	**3950**	**10300**	0.711	
	OCD-7AR	Oct-19		602	**2680**	**2.80**	6.22	2420	**3640**	**10200**	<0.0197	
	OCD-7AR	Jun-20		619	**2990**	**2.13**	6.10	2520	**3990**	**9740**	<0.0500	
	OCD-7AR	Oct-20		643	**2680**	**2.75**	6.37	2590	**3640**	**10800**	<0.0500	
	OCD-7B	Mar-13		552	**867**	1.33	12.2	650	**2270**	**4670**	<1.00	
	OCD-7B	Apr-15		641	**910**	0.852	11.9	685	**2580**	**4520**	<0.0200	
	OCD-7B	Apr-17		564	**960**	1.05	11.0	629	**2100**	**4540**	<0.0197	
	OCD-7B	Apr-19		590	**874**	0.839	11.7	678	**2260**	**4760**	<0.0197	
	OCD-8A	Apr-18		680	**2630**	**2.87**	8.52	2090	**3730**	**9840**	0.181	<0.00180
	OCD-8A	Oct-18		664	**2750**	**1.73**	9.02	2260	**4160**	**9500**	<0.0197	<0.00180
	OCD-8A	Apr-19		683	**2690**	**2.47**	8.77	2200	**3800**	**10500**	<0.0197	<0.00180
	OCD-8A	Oct-19		1010	**12000**	**2.02**	17.4	6590	**6010**	**29600**	0.275	<0.00180
	OCD-8A	Jun-20		665	**5120**	**2.01**	8.85	3440	**4510**	**12600**	<0.0500	<0.00180
	OCD-8A	Oct-20		758	**5270**	**2.36**	10.8	3710	**4260**	**15600**	<0.0500	<0.00180
	OCD-8B	Apr-13		716	**2180**	0.980	8.75	1330	**2880**	**7400**	<1.00	
	OCD-8B	Apr-15		680	**2020**	0.934	9.51	1520	**2910**	**7110**	0.0233 J	
	OCD-8B	Apr-17		660	**2030**	0.925	9.07	1800	**2620**	**7390**	0.0320 J	
	OCD-8B	Apr-19		715 V	**3230**	0.774	9.61	1490 V	**4950**	**7690**	<0.0197	
Field East of Refinery	KWB-1A	Apr-18		511	**354**	1.21	1.00	272	**2930**	**4690**	0.341	<0.00180
	KWB-1A	Oct-18		457	**339**	1.48	1.53 JB	251	**2670**	**4060**	0.219	<0.00180
	KWB-1A	Apr-19		538	**319**	1.26	1.20	291	**2580**	**4580**	0.446	<0.00180
	KWB-1A	Oct-19		466	**332**	1.46	0.954 J	258	**2660**	**4240**	0.101	<0.00180
	KWB-1A	Jun-20		465	**271**	1.33	0.854 J	234	**2600**	**4490**	0.142	<0.00180
	KWB-1A	Oct-20		476	**266**	1.33	0.994 JB	245	**2430**	**4320**	0.0862 J	<0.00180

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
	KWB-1C	Apr-13		474	**380**	1.03	5.68	161	**2150**	**4420**	1.75	
	KWB-1C	Apr-15		619	**1160**	**25.3**	1.23	210	**2920**	**5340**	0.180	
	KWB-1C	Apr-17		560	**508**	1.25	1.36	267	**2860**	**5000**	0.0350 JP1	
	KWB-1C	Apr-19		533	**317**	1.16	1.39	274	**2550**	**4680**	0.629	
	KWB-7	Oct-17		345	**354**	0.599	0.230 J	268	**907**	**3080**	<0.0197	<0.00180
	KWB-7	Oct-18		326	**360**	0.754	0.419 JB	248	**1120**	**2630**	<0.0197 J6	<0.00180 P1
	KWB-7	Jun-20		330	**458**	0.915	<0.534	275	**834**	**2810**	<0.0500	<0.00180
	KWB-7	Oct-20		371	**330**	0.794	<2.67	263	**1260**	**3180**	0.0590 J	<0.00180 J6
	KWB-8	Oct-16		251	**579**	0.467	0.351 J	443	**701**	**3120**	0.0380 JB	<0.00900
	KWB-8	Apr-17		237	**574**	0.623	0.414 J	320	442	**2400**	0.0510 J	<0.00180
	KWB-8	Oct-17		273	**913**	0.467	0.411 J	462	417	**3270**	<0.985	<0.00180
	KWB-8	Oct-20		301	**398**	0.694	<0.534	546	**1660**	**4440**	<1.00	<0.0180
	KWB-10R	Apr-17		134	230	1.57	0.521 J	131	0.475 J	**1130**	<0.0197	
	KWB-10R	Oct-17		138	186	1.39	0.453 J	123	3.08 J	**1080**	0.440	
	KWB-10R	Apr-18		138	183	1.35	0.430 J	122	<0.0774	**1060**	0.0250 J	
	KWB-10R	Oct-18		130	188	1.33	0.836 JB	110	<0.0774	**1040**	<0.0197	
	KWB-11A	Apr-18		461	**849**	0.567	0.856 J	335	**1060**	**3570**	4.51	<0.00180
	KWB-11A	Oct-18		433	**786**	0.851	1.17 B	359	**1220**	**3410**	0.0410 J	<0.00180
	KWB-11A	Apr-19		453	**744**	0.626	0.831 J	308	**1100**	**3380**	0.679	<0.00180
	KWB-11A	Jun-20		408	**676**	0.753	0.800 J	319	**1180**	**3180**	0.0536 J	<0.00180
	KWB-11A	Oct-20		396	**541**	0.652	0.676 J	306	**1090**	**2930**	0.414	<0.00180
	KWB-11B	Apr-18		497	**300**	0.418	2.21	91.8	**1580**	**2650**	3.32	<0.00180
	KWB-11B	Oct-18		484	**314**	0.399	2.65 B	86.8	**1580**	**2620**	3.33	<0.00180
	KWB-11B	Apr-19		516	**342**	0.359	2.19	87.2	**1500**	**2560**	3.31	<0.00180
	KWB-11B	Oct-19		498	**329**	0.447 J	2.25	87.0	**1540**	**2620**	2.69	<0.00180 J6
	KWB-11B	Jun-20		515	**369**	0.453	2.24	97.1	**1710**	**2880**	3.34	<0.00180
	KWB-11B	Oct-20		509	**365**	0.395	<2.67	100	**1380**	**3130**	3.03	<0.00180
	KWB-12A	Oct-18		475	92.4	0.439	0.696 J	120	**1890**	**2850**	9.14	<0.00180
	KWB-12A	Oct-19		480	111	0.597	0.614 JB	122	**2210**	**3270**	8.01	<0.00180
	KWB-12A	Jun-20		519	115	0.587	1.46 J	135	**2270**	**3490**	7.15	<0.00180
	KWB-12A	Oct-20		541	129	0.537	1.07 JB	133	**2020**	**3520**	6.85	<0.00180
	KWB-12B	Apr-18		571	121	0.346	0.699 J	150	**2390**	**3560**	7.78	<0.00180
	KWB-12B	Apr-18	FD	581	129	0.377	0.745 J	144	**2280**	**3480**	7.88	<0.00180
	KWB-12B	Oct-18		507	104	0.312	0.739 J	128	**1330**	**3340**	8.52	<0.00180
	KWB-12B	Oct-18	FD	538	106	0.307	0.653 J	129	**1660**	**3380 J3**	8.26	<0.00180
	KWB-12B	Apr-19		606	111	0.327	0.752 J	151	**2140**	**3600**	7.48	<0.00180
	KWB-12B	Apr-19	FD	549	110	0.328	0.723 J	134	**2080**	**3580**	7.81	<0.00180
	KWB-12B	Oct-19		527	114	0.425	0.575 JB	129	**2230**	**3830 J3**	7.10	<0.00180
	KWB-12B	Oct-19	FD	533	113	0.417	0.621 J	134	**2280**	**3620**	7.15	<0.00180
	KWB-12B	Jun-20		537	120	0.441	0.673 J	130	**2460**	**3790**	**11.5**	<0.00180
	KWB-12B	Jun-20	FD	525	114	0.343	0.742 J	126	**2210**	**3600**	8.27	<0.00180
	KWB-12B	Oct-20		578	130	0.386	0.656 JB	141	**2210**	**3820**	6.35	0.00596
	KWB-12B	Oct-20	FD	533	126	0.395	0.642 J	141	**2140**	**3760**	7.25	0.0565
	KWB-P4	Apr-13										
	KWB-P4	Apr-15										
	KWB-P4	Apr-17										
	KWB-P4	Apr-19										
	MW-57	Apr-18		506	185	**2.22**	1.57	315	**2430**	**3660 J3**	7.42	
	MW-57	Oct-18		536	159	**1.91**	1.28	386	**2220**	**4850**	**25.6**	
	MW-57	Apr-19		590	152	1.58	3.30	259	**1700**	**3160**	4.05	
	MW-57	Oct-19		638	**482**	**2.91**	2.35	429	**3160**	**5720**	**12.7**	
	MW-57	Jun-20		568	131	**2.63**	1.21 J	388	**3190**	**4840**	**13.8**	
	MW-57	Oct-20		529	135	**1.99**	2.97	287	**2140**	**4040**	4.83	
	MW-58	Oct-17		235	249	1.26	0.553 J	116	13.1	**1340**	<0.0197	<0.00180
	MW-58	Apr-18		215	207	1.37	0.290 J	98.5	2.59 J	**1250**	<0.0985	<0.00180
	MW-58	Oct-18		176	151	1.06	1.20	74.3	56.9	**1040**	<0.394	<0.00180 J3J6
	MW-58	Oct-19		229	**294**	1.33	2.06	70.3	1.49 JB	**1140**	<0.0197	<0.00180
	MW-111	Apr-18		242	**421**	0.830	0.158 J	240	435	**1630**	<0.0197	
	MW-111	Oct-18		203	**412**	1.46	0.588 JB	221	331	**1810**	<0.0197	
	MW-111	Apr-19		340	**375**	0.957	1.83	209	322	**2000**	<0.0197	
	MW-111	Oct-19		212	**429**	1.38	0.214 J	239	317	**2070**	<0.0197	
	MW-111	Jun-20		251	**409**	1.08	1.11 J	206	372	**1970**	<0.0500	
	MW-112	Nov-14		190	230	1.00	0.310 J	190	5.40	**1200**	<0.0200	
	MW-113	Apr-18		318	174	0.515	0.538 J	164	**985**	**2210**	0.0350 J	
	MW-113	Apr-18	FD	329	191	0.521	0.629 J	160	**1070**	**2150**	<0.0197	
	MW-113	Oct-18		309 V	177	0.499	0.557 JB	156 V	**1060**	**2010**	<0.0197	
	MW-113	Oct-18	FD	327	186	0.542	0.555 J	161	**895**	**2050**	<0.0197	
	MW-113	Apr-19		332	172	0.451	0.746 J	163	**997**	**2440**	<0.0197 J6	
	MW-113	Apr-19	FD	329 V	178	0.449	0.633 J	160 V	**1020**	**2070**	<0.0197	
	MW-113	Oct-19		299	211	0.593	0.377 JB	164	**1180**	**2050**	<0.0197	
	MW-113	Oct-19	FD	306	198	0.611	0.419 J	162	**971**	**2380**	<0.0197 J6	
	MW-113	Jun-20		317	192	0.519	0.598 J	159	**1210**	**2440**	<0.0500	
	MW-113	Jun-20	FD	313	184	0.605 J	<0.534	152	**958**	**2460**	<0.0500	
	MW-113	Oct-20		274	177	0.527	<0.534	158	**773**	**2200**	0.199	
	MW-113	Oct-20	FD	280	185	0.536	<2.67	177	**786**	**2210**	0.128	
	MW-125	Apr-18		548 V	**337**	1.32	1.28	234 V	**2680**	**3900 J3**	0.213	
	MW-125	Oct-18		534	**284**	0.995	1.31	211	**2300**	**3910**	0.440	
	MW-125	Apr-19		549	**322**	1.25	1.23	206	**2860**	**4290**	0.457	
	MW-125	Oct-19		517	**304**	1.20	1.30	216	**3040**	**4480**	0.788 J5	
	MW-125	Jun-20		543	**330**	1.19	1.41 J	221	**2950**	**4500**	0.212 J5	
	MW-125	Oct-20		541	**271**	1.10	1.42 JB	221	**2270**	**4350**	0.0919 J	
	MW-126A	Apr-18		383	245	0.881	0.548 J	200	**1780**	**3350**	<0.0197	
	MW-126A	Oct-18		308	185	0.899	1.72 JB	179	**1310**	**2420**	0.0850 J	
	MW-126A	Apr-19		382	191	0.757	0.547 JB	138	**1350**	**2540**	<0.0197	
	MW-126A	Oct-19		325	136	0.937	0.670 J	152	**1330**	**2330**	<0.0197 J5	
	MW-126A	Jun-20		357	198	0.869	<0.534	152	**1590**	**2680**	<0.0500	
	MW-126A	Oct-20		396	210	0.706	<0.534	189	**1510**	**3150**	<0.0500	
	MW-126B	Apr-18		534	**266**	0.764	2.36	202	**2310**	**3680**	0.436	
	MW-126B	Oct-18		561	**264**	0.930	3.07	213	**2290**	**3610**	0.639	
	MW-126B	Apr-19		590	**263**	0.629	2.80	219	**2060**	**3430**	0.381	
	MW-126B	Oct-19		545	**273**	0.779	2.31	198 V	**2250**	**4180**	0.364	
	MW-126B	Jun-20		539	**272**	0.784	2.27	210	**2440**	**4010**	0.414	
	MW-126B	Oct-20		562	**256**	0.705	2.36	195	**2140**	**3990**	0.429	
	MW-127	Oct-17		262	231	0.993	1.46	142	**776**	**1970**	0.146	
	MW-127	Apr-18		245	225	0.997	0.279 J	148	**677**	**2010**	<0.0985	
	MW-127	Oct-18		240	219	0.979	1.29 JB	135	**670**	**1940**	<0.0197	
	MW-127	Apr-19		267	208	0.855	0.438 JB	163	**612**	**1990**	<0.0197	
	MW-128	Oct-17		186	200	1.29	0.354 JB	107	248	**1370**	<0.0197	
	MW-128	Apr-18		181	175	1.23	0.764 J	115	207	**1280**	<0.0197	
	MW-128	Oct-18		161 V	170	1.13	0.412 J	97.3 O1V	147	**1650**	0.0230 JJ6	
	MW-128	Apr-19		181	173	1.06	0.725 J	115	126	**1300**	<0.0197	
	MW-129	Apr-16		170	**300**	1.10	0.331 J	210	44.1	**1520**	<0.197	
	MW-129	Oct-16		162	**293**	1.13	0.270 J	198	44.1	**1340**	0.0770 JB	
	MW-129	Apr-17		163	**300**	1.02	0.334 J	199	44.1	**1250**	<0.197 J5	
	MW-129	Apr-18		162	**282**	1.04	0.251 J	201	52.6	**1270**	<0.0197	

Field East of Refinery

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Field East of Refinery	MW-130	Apr-18		256	235	0.841	0.644 J	299	**999**	**2230**	1.87	
	MW-130	Oct-18		239	237	0.792	0.611 J	273	**985**	**2020 J4**	1.97	
	MW-130	Apr-19		269	228	**1.81**	0.712 J	289	**940**	**2470 J4**	1.81	
	MW-130	Oct-19		250	243	0.913	0.789 J	275	**1000**	**2170**	0.777	
	MW-130	Jun-20		247	208	0.828	0.656 J	285	**972**	**2390**	0.861	
	MW-130	Oct-20		242	188	0.758	0.648 JB	285	**882**	**2430**	0.959	
	MW-131	Apr-17		151	**285**	0.773	0.275 J	153	10.3	**1230**	<0.197	
	MW-131	Oct-17		149	**284**	0.807	0.200 J	149	15.5	**1290**	<0.0197	
	MW-131	Oct-19		145	**288**	0.845	0.251 J	150	19.7	**1210**	<0.0197	
	MW-131	Jun-20		153	**283**	0.865	<0.534	163	24.7	**1270**	<0.0500	
	MW-133	Nov-14		200	170	1.10	0.460 J	140	140	**1300**	<0.0200	
	MW-133	Apr-15		163	174	1.19	0.323 J	122	116	**1190**	<0.200	
	MW-134	Apr-18		555	**441**	1.11	1.65	270	**2790**	**4480**	3.89	
	MW-134	Apr-18	FD	574 V	**464**	1.08	1.71	271 V	**2760**	**4430**	3.85	
	MW-134	Oct-18		514	**392**	0.956	1.50	243	**1950**	**5090**	3.83	
	MW-134	Oct-18	FD	546	**405**	0.947	1.60	241	**2170**	**5460**	1.52	
	MW-134	Apr-19		582	**417**	1.31	1.89	283	**3060**	**4960**	3.42	
	MW-134	Apr-19	FD	563	**403**	1.31	1.70	263	**2840**	**5250**	3.53	
	MW-134	Oct-19		511	**396**	1.37	1.48	243	**3140**	**4710**	2.67	
	MW-134	Oct-19	FD	542	**398**	1.42	1.54	249	**2780**	**4960**	2.55	
	MW-134	Jun-20		515	**370**	1.16	1.51 J	234 V	**2910**	**4870**	1.73 J5	
	MW-134	Jun-20	FD	516	**363**	1.45 J	1.43 J	239	**2530**	**4960**	<0.0500	
	MW-134	Oct-20		501	**349**	1.01	1.67 JB	243	**2700**	**4950**	1.37	
	MW-134	Oct-20	FD	503	**366**	1.32 J	1.64 J	251	**2530**	**4970**	1.39	
	MW-135	Apr-18		493	**765**	1.09	0.904 J	599	**2530**	**5020**	**32.8**	
	MW-135	Oct-18		484	**716**	0.985	1.15 JB	573	**2730**	**5070**	**35.9**	
	MW-135	Apr-19		608	**652**	0.954	1.00	667	**2780**	**5780**	**29.5**	
	MW-135	Oct-19		513	**547**	1.20	0.744 JB	542	**2820**	**5240**	**13.4**	
	MW-135	Jun-20		542	**542**	1.14	0.801 J	594	**2940**	**5600**	**16.0**	
	MW-135	Oct-20		538	**504**	1.13	<2.67	621	**2970**	**5460**	**10.9**	
	MW-145	Oct-20										
	MW-145	Oct-20	FD									
	MW-146	Oct-20										
	MW-147	Oct-20										
	MW-148	Oct-20										
	RA-4196	Apr-18		379	131	0.354	2.22	97.9	**1290**	**2070**	<0.0197	
	RA-4196	Oct-18		345	119	0.291	1.98	90.5	**935**	**1960**	<0.0197	
	RA-4196	Apr-19		370	112	0.309	2.34	90.6	**1060**	**1920**	<0.0197	
	RA-4196	Oct-19		363	131	0.299	1.96	89.2	**1250**	**2160**	<0.0197	
	RA-4196	Jun-20		365	126	0.324	2.17	90.1	**1330**	**2290**	<0.0500	
	RA-4196	Oct-20		382	123	0.348	2.36	98.7	**1250**	**2340**	0.842 J6	
	RA-4798	Apr-18		238 V	62.9	0.408	1.98	41.4	**783**	**1340**	0.878	
	RA-4798	Oct-18		335	110	0.317	1.97	83.1	**1270**	**2110**	1.16	
	RA-4798	Apr-19		257	60.1	0.355	2.16	46.5	**726**	**1340**	1.02	
	RA-4798	Oct-19		366	130	0.339	1.91	93.8	**1260**	**1950**	1.14	
	RA-4798	Jun-20		449	163	0.321	2.30	117	**1620**	**2820**	1.50	
	RA-4798	Oct-20		356	104	0.358	2.36	87.6	**1080**	**2200**	1.18	
	RW-12R	Apr-17		392	189	0.623	0.293 J	152	**1740**	**2420 J3**	<0.197	
	RW-12R	Apr-18		378	155	0.700	0.220 J	171	**1400**	**2400**	<0.0197	
	RW-12R	Apr-19		369 V	154	0.609	0.408 JB	164 V	**1180**	**2450**	<0.0394	
	RW-12R	Jun-20		337	143	0.716	<0.534	158	**1300**	**2750**	<0.0500	
	RW-13R	Apr-16		202	222	0.691	0.346 J	167	341	**1190**	0.0460 J	
	RW-13R	Apr-18		242	207	0.650	0.378 J	183	525	**1700**	0.0260 JP1	
	RW-18A	Apr-17		504	176	**2.51**	1.09	141	**2870**	**4400**	1.90	
	RW-18A	Apr-18		491	206	**1.82**	0.832 J	132	**2750**	**3940**	0.408	
	RW-18A	Apr-19		549	199	**1.94**	0.832 J	130	**2390**	**3970**	0.286	
	RW-18A	Jun-20		515	211	**2.03**	0.990 J	120	**2490**	**4280**	0.460	
	RW-20	Apr-15		228	**256**	0.530	<0.180	228	125	**1430**	<0.200	
	RW-22	Apr-15		184	**402**	0.860	0.319 J	274	78.4	**1680**	<0.200	
NCL	MW-18	Apr-17		486	77.5	**3.44**	13.9	65.0	**1970**	**3420**	**51.0**	<0.00180
	MW-18	Apr-18		472	154	1.59	3.05	90.2	**1820**	**2580**	**37.9**	<0.00180
	MW-18	Apr-19		536	86.7	**2.04**	7.60	76.6	**1910**	**3310**	**32.6**	<0.00180
	MW-18	Jun-20		421	154	**1.61**	1.66 J	58.7	**1510**	**2870**	**18.3**	<0.00180
	MW-45	Apr-18		651	**523**	**1.62**	6.27	371	**2590**	**4480**	0.0220 J	<0.00180
	MW-45	Oct-18		624	**447**	1.36	5.03	372	**2680**	**3840**	<0.0197	0.00258 J
	MW-45	Apr-19		670	**462**	1.24	7.13	390	**2580**	**4760**	0.0470 JJ6	<0.00180
	MW-45	Oct-19		588	**441**	**1.73**	5.54	375	**2530**	**4710**	0.0260 J	<0.00180
	MW-45	Jun-20		574	**413**	1.54	4.80	339	**2490**	**4480**	<0.0500	0.00225 J
	MW-45	Oct-20		577	**429**	**1.70**	4.70	359	**2350**	**4970**	<0.0500	<0.00180
	MW-53	Apr-16		459	**346**	1.06	1.42 J	161	**1340**	**2890**	**25.3**	
	MW-53	Apr-17		340	222	0.904	1.12	130	**1330**	**2290**	**15.6**	
	MW-53	Apr-18		315	72.9	1.13	1.12 B	118	**1250**	**1860**	1.58 J6	
	MW-53	Apr-19		259	59.6	1.30	1.17	88.4	**1100**	**1880**	0.290	
	MW-53R	Oct-20		298	66.7	1.11	4.08	69.1	**955**	**1920**	<0.0500	
	MW-54A	Apr-18		373 V	186	0.955	0.324 JB	61.7	**746**	**1650**	<0.0197	
	MW-54A	Oct-18		359	181	0.898	0.215 J	60.3	**821**	**1810**	<0.0197	
	MW-54A	Apr-19		335	185	0.957	0.196 J	54.1	**778**	**1890**	<0.0197	
	MW-54A	Oct-19		356	212	1.03	0.292 JB	61.1	**833**	**2060**	0.154	
	MW-54A	Jun-20		366	198	0.809	<0.534	55.5	**838**	**2030**	<0.0500	
	MW-54A	Oct-20		374	196	0.913	<0.534	60.8	**768**	**1990**	<0.0500 J5	
	MW-54B	Apr-13		345	176	<0.500	1.16	48.8	**747**	**2050**	<1.00	
	MW-54B	Apr-15		307	166	0.613	0.767 J	48.0	**752**	**1890 J**	0.0276 J	
	MW-54B	Apr-17		317	127	0.617	1.18	54.5	**1040**	**1840**	0.100 J	
	MW-54B	Apr-19		319	140	0.634	0.811 J	50.5	**818**	**1870**	0.0410 J	
	MW-55	Apr-18		455	**523**	1.58	0.838 J	214	**1770**	**3670**	1.41	<0.00180
	MW-55	Oct-18		447	**412**	1.59	1.04	227	**1810**	**3340**	2.86	<0.00180
	MW-55	Apr-19		519	**520**	**1.62**	0.897 J	229	**1930**	**3900**	2.28	<0.00180
	MW-55	Oct-19		414	**538**	1.58	0.749 J	235	**1610**	**3640**	0.419	<0.00180
	MW-55	Jun-20		410	**580**	1.55	0.672 J	225	**1540**	**3480**	0.0643 J	<0.00180
	MW-55	Oct-20		333	**505**	1.30	0.842 JB	228	**949**	**3010**	<0.0500	<0.00180
	MW-56	Apr-17		501 V	**453**	1.00	2.10	338 V	**2070**	**4100**	3.93	
	MW-56	Apr-18		485	242	1.25	2.14	252	**2000**	**3080**	<0.0197	
	MW-56	Apr-19		475	221	1.06	1.99	212	**1890**	**3560**	<0.0197	
	MW-56	Jun-20		496	219	1.08	1.70 J	142	**1990**	**3520**	<0.0500	
	MW-108	Apr-18		426	71.0	**2.68**	3.17	137	**1790**	**2730 J3**	<0.394	
	MW-108	Oct-18		300	62.0	**1.64**	0.996 J	98.1	**1080**	**2260**	<0.985	
	MW-108	Apr-19		239	37.6	1.60	1.18	73.3	**790**	**2080**	<0.985	
	MW-108	Oct-19		244	23.4	**1.84**	0.725 J	60.8	**802**	**1940**	<0.394	
	MW-108	Jun-20		157	17.9	**1.63**	<0.534	45.5	365	**1270**	<5.00	
	MW-108	Oct-20		139	15.8	1.48	<0.534	46.8	221	**1150**	<0.0500	
	NCL-31	Apr-18		325	53.0	1.39	0.422 J	97.4	**1600**	**2100**	0.0940 J	
	NCL-31	Oct-18		382	35.3	1.55	1.02	110	**2100**	**2860**	<0.0197	
	NCL-31	Apr-19		323	32.1	1.34	0.459 J	97.6	**1520**	**2910**	<0.0197	
	NCL-31	Oct-19		419	20.6	**2.73**	3.06	83.2	**2240**	**3570**	2.46	
	NCL-31	Jun-20		308	21.3	1.36	<0.534	65.4	**1600**	**2580**	<0.0500	
	NCL-31	Oct-20		290	28.6	1.23	<0.534	69.7	**1360**	**2460**	<0.0500	

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
NCL	NCL-32	Apr-18		425	130	1.51	3.41	116	**1450**	**2450**	2.72 J6	
	NCL-32	Oct-18		447	104 B	1.23	3.24	120	**1570**	**2270**	5.11	
	NCL-32	Apr-19		442	105	1.26	3.35	116	**1480**	**2730**	5.87	
	NCL-32	Oct-19		431	98.8	1.28	3.19	114	**1840**	**2880**	5.62	
	NCL-32	Jun-20		472	90.7	1.36	3.12	107	**1730**	**2940**	6.45	
	NCL-32	Oct-20		483	90.7	1.27	3.47	118	**1640**	**3040**	5.82	
	NCL-33	Apr-18		473	**486**	**2.63**	5.70	122	**870**	**2180**	<0.0197	
	NCL-33	Oct-18		454	**466**	**2.47**	5.35	128	**809**	**1880**	<0.0197	
	NCL-33	Apr-19		430	**483**	**2.12**	4.92	145	595	**1840**	0.890	
	NCL-33	Oct-19		547	**964**	**2.34**	5.54	157	**1090**	**3120**	<0.0197	
	NCL-33	Jun-20		714	**692**	**2.44**	5.60	166	**1540**	**3890**	0.0547 J	
	NCL-33	Oct-20		688	**667**	**2.64**	6.43	178	**1340**	**3960**	<0.0500	
	NCL-34A	Apr-18		276	**323**	1.36	1.32	113	85.2	**1520**	<0.197	
	NCL-34A	Oct-18		270	**289**	1.21 J3J5	1.25	111	117	**1710**	<0.394	
	NCL-34A	Apr-19		251 V	**262**	1.37	1.11	107 V	42.6	**1370**	<0.394	
	NCL-34A	Oct-19		235	245	1.38	1.15	116	119	**1470**	0.110	
	NCL-34A	Jun-20		283	**260**	1.31	1.13 J	104	234	**1680**	<5.00	
	NCL-44	Apr-18		361	144	**1.88**	2.44	129	**1280**	**2200**	<0.0197 J3J6	
	NCL-44	Oct-18		376	146	1.60	2.33	131	**1330**	**2340**	0.0260 JJ6	
	NCL-44	Apr-19		371	138	1.48	2.39	131	**1230**	**2640**	<0.0197 J6	
	NCL-44	Oct-19		356	185	**1.67**	2.32	131	**1430**	**2740**	0.142	
	NCL-44	Jun-20		373	141	**1.66**	2.15	135	**1290**	**2700**	<0.0500	
	NCL-44	Oct-20		358	126 B	**1.63**	2.29	142	**1170**	**2730**	<0.0500	
	NCL-49	Apr-18		522	169	0.640	0.736 JB	145	**2070**	**2560**	7.75	
	NCL-49	Apr-18	FD	525	171	0.651	0.995 JB	147	**2070**	**3060**	7.85	
	NCL-49	Oct-18		485	143	0.565 B	0.689 J	130	**2050**	**3370**	3.59	
	NCL-49	Oct-18	FD	448	144	0.572 B	0.635 J	122	**2040**	**3190**	3.59	
	NCL-49	Apr-19		438	127	0.658	0.761 J	123	**1910**	**2490**	5.63	
	NCL-49	Apr-19	FD	450	129	0.653	0.701 J	124	**1830**	**2440**	5.66	
	NCL-49	Oct-19		474	137	0.740	0.736 J	129 V	**1910**	**3240**	6.39	
	NCL-49	Oct-19	FD	440	134	0.722	0.642 J	126 V	**1970**	**3390**	7.44	
	NCL-49	Jun-20		486	128	0.609	0.686 J	133	**1910**	**3350**	9.98	
	NCL-49	Jun-20	FD	472	128	0.613	0.652 J	135	**1920**	**3350**	9.95	
	NCL-49	Oct-20		487	135 B	0.606	0.692 JB	135	**1830**	**3380**	**10.1**	
	NCL-49	Oct-20	FD	482	135 B	0.600	0.675 JB	133	**1820**	**3430**	10.0	
North Refinery	MW-23	Apr-18		112	**450**	**1.88**	1.47	472	10.9	**2080**	<0.0197	
	MW-23	Oct-18		104	**418**	1.49	1.41	429	10.8	**1830**	<0.0197	
	MW-23	Apr-19		97.5	**444**	**1.70**	1.12	482	18.9	**2000**	<0.0197	
	MW-23	Oct-19		95.6	**428**	1.59	1.27	410	18.7	**2020**	<0.0197	
	MW-23	Jun-20		96.4	**410**	1.42	1.10 J	426 V	15.6	**1970**	<0.500	
	MW-23	Oct-20		96.8	**408**	1.19	1.29 J	459	7.39	**1990**	<0.0500	
	MW-29	Apr-18		501	**332**	1.29	1.61	298	**2120**	**3910**	<0.0197	
	MW-29	Oct-18		344	**263**	0.953	1.08	324	**1450**	**2990**	<0.0197	
	MW-29	Apr-19		617	**331**	**1.61**	1.98	360	**2790**	**5300**	<0.0197	
	MW-29	Oct-19		519	**351**	**2.05**	2.08	357	**2810**	**4180**	<0.0197	
	MW-29	Jun-20		396	**383**	**1.71**	2.03	356	**1890**	**3610**	<0.0500	
	MW-29	Oct-20		336	**418**	1.47	1.90 J	333 V	**1430**	**3530**	<0.0500	
	MW-39	Apr-18		72.9	131	**3.57**	0.331 J	1090	**1130**	**3020**	<0.0197	
	MW-39	Oct-18		51.5	95.9	**3.62**	0.295 J	779	**770**	**2490**	<0.0197	
	MW-39	Apr-19		52.6	111	**4.21**	0.164 J	891	**1000**	**2580**	<0.0197	
	MW-39	Oct-19		45.8	86.8	**4.26**	0.245 J	771	**929**	**2590**	<0.0197	
	MW-39	Jun-20		61.8	97.7	**3.45**	<0.534	721	**821**	**2410**	<0.0500	
	MW-39	Oct-20		63.8	91.5	**3.28**	<0.534	655	**686**	**2260**	<0.0500	
	MW-40	Apr-17		474	156	**1.76**	1.62	110	**1550**	**3190**	<0.197	
	MW-40	Apr-18		425	141	**1.80**	1.41	107	**1440**	**2390**	<0.985	
	MW-40	Apr-19		450	106	1.52	1.39	107	**1400**	**2600 J3**	<0.394	
	MW-40	Jun-20		374	88.4	**1.88**	1.30 J	90.4	**1380**	**2430**	<0.500	
	MW-41	Apr-17		224	**328**	0.936	0.415 J	379	**1200**	**2890**	<0.197	
	MW-41	Apr-18		329	**682**	0.934	0.571 J	624	**1500**	**4060**	<0.0197	
	MW-41	Apr-19		238	**721**	0.884	0.590 J	624	**1140**	**4110**	<0.394	
	MW-41	Jun-20		282	**875**	1.00	0.653 J	828	**1780**	**4930**	<0.0500	
	MW-42	Apr-17		222	**406**	0.831	0.421 J	462	**1100**	**3410**	0.416 JP1	
	MW-42	Apr-18		241	**372**	0.984	0.433 J	445	**1180**	**2990 J3**	0.0310 JJ6	
	MW-42	Apr-19		233	**319**	0.780	0.449 J	425	**1010**	**2590**	<0.394	
	MW-42	Jun-20		246	**336**	0.851	<0.534	358	**1020**	**3310**	<2.50	
	MW-43	Apr-18		159	**697**	**1.93**	1.11	604	357	**3110**	<0.985	<0.180
	MW-43	Oct-18		155	**636**	**1.61**	1.01	483	311	**2900**	<0.985	<0.180
	MW-43	Apr-19		152	**639**	**1.71**	0.923 J	491	444	**2610**	<0.394	<0.0180
	MW-43	Oct-19		205	**662**	**1.66**	0.961 J	406	479	**2120**	<0.985	<0.0180 J4
	MW-43	Jun-20		141	**547**	1.36	0.828 J	341	198	**2210**	<0.250	<0.0360
	MW-43	Oct-20		141	**550**	1.09	0.896 J	350	102	**2150**	<0.0500	<0.0180
	MW-59	Apr-17		467	184	1.13	0.519 J	134	**1870**	**3160**	<0.197	
	MW-59	Apr-18		492	180	1.31	0.507 J	151	**1680**	**2760**	<0.0197 J6	
	MW-59	Apr-19		475	173	1.10	0.468 J	153	**1400**	**3110**	<0.0197	
	MW-59	Jun-20		366	201	1.33	<0.534	184	**1340**	**2900**	<0.0500	
	MW-60	Apr-18		444	221	0.974	0.769 J	233	**2080**	**3850**	<0.0197 J6	<0.0180
	MW-60	Apr-18	FD	447	231	0.969	0.746 J	218	**1980**	**3510**	<0.0197	<0.180
	MW-60	Oct-18		432	231	1.00	0.836 J	227	**2030**	**3020**	0.0640 JP1	0.00291 J
	MW-60	Oct-18	FD	432	230	0.978	0.750 J	223	**1730**	**4100**	0.0810 J	<0.0180
	MW-60	Apr-19		448	**275 B**	1.06	0.766 J	258	**2380**	**3870**	<0.985	<0.00180
	MW-60	Apr-19	FD	429	**269 B**	0.901	0.703 J	250	**2300**	**4060**	<0.985	<0.00180
	MW-60	Oct-19		401	250	0.972	0.420 J	191	**2200**	**2930 J3**	<0.197	<0.0180
	MW-60	Oct-19	FD	402	**273**	0.936	0.445 JB	184 V	**2040**	**3320 J3**	<0.197	<0.0180
	MW-60	Jun-20		418	206	0.778	<0.534	178	**1770**	**3720**	<2.50	<0.0360
	MW-60	Jun-20	FD	424	219	1.18 J	<0.534	176	**1660**	**3790**	<0.500	<0.0360
	MW-60	Oct-20		418	202	0.715	<0.534	189	**1510**	**3560**	0.203	<0.0180
	MW-60	Oct-20	FD	401	219	1.21 J	<0.534	190	**1780**	**3660**	<0.0500	<0.0180
	MW-61	Apr-18		289 V	**299**	1.55	1.24	293 V	**862**	**2200**	<0.394	
	MW-61	Oct-18		257	**279**	1.46	2.99 JB	258	**797**	**2180**	<0.985	
	MW-61	Apr-19		288	**322**	1.43	0.885 J	317	**725**	**2320**	<0.197	
	MW-61	Oct-19		402	**412**	**2.05**	2.49	234	**885**	**2690**	<0.985	
	MW-61	Jun-20		292	**471**	1.09	0.933 J	299	541	**2570**	<5.00	
	MW-61	Oct-20		246	**339**	1.06	0.820 JB	302	532	**2110**	<0.0500	
	MW-62	Apr-18		338	**266**	**1.73**	1.36	360	**793**	**2330**	<0.394	
	MW-62	Oct-18		259	**264**	**1.91**	2.22 JB	270	500	**2100**	<0.985	
	MW-62	Apr-19		292	**266**	1.56	1.15	310	556	**2280**	<0.0197	
	MW-62	Oct-19		271	**285**	1.60	1.12	255 O1V	593	**2290**	<0.985	
	MW-62	Jun-20		282	**280**	1.19	0.973 J	235	524	**2290**	<2.50	
	MW-62	Oct-20		304	**296**	1.08	1.11 JB	241	531	**2370**	<0.0500	
	MW-62R	Oct-20		304	**311**	0.806	3.38	152	571	**2240**	<0.0500	
	MW-67	Oct-17		207	**305**	0.568	0.500 JB	200	388	**1740**	<0.0985	<0.00180
	MW-67	Apr-18		220	**328**	0.636	0.573 JB	245	404	**1660**	<0.197	<0.180
	MW-67	Oct-18		240	221	0.611	0.636 J	202	493	**1580**	<0.0197	<0.00180
	MW-67	Apr-19		202	**302**	0.637	0.538 J	225	447	**1630**	<0.0197	<0.00180

Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
North Refinery	MW-90	Apr-18		300	166	**2.11**	1.16 B	200	**1620**	**2510**	<0.197	
	MW-90	Oct-18		305	150	**2.32**	1.31	167	**1630**	**2990**	<0.197	
	MW-90	Apr-19		321	167	**1.99**	1.21	172	**1900**	**2710**	0.558 J	
	MW-90	Oct-19		434	79.1	**5.45**	1.73	109	**2540**	**3480**	0.0330 J	
	MW-90	Jun-20		331	173	**2.25**	1.13 J	142	**1790**	**3120**	<2.50	
	MW-90	Oct-20		293	210	1.05	0.913 J	171	**1280**	**2910**	<0.0500	
	MW-91	Apr-18		440	167	1.31	0.513 JB	40.0	**961**	**2170 J3**	<1.97	
	MW-91	Oct-18		433	221	1.27	0.639 J	35.2	**966**	**2820**	<0.985	
	MW-91	Apr-19		460	**295**	1.27	0.468 J	38.9	**915**	**3290**	<1.97	
	MW-91	Oct-19		451	**422**	1.29	0.520 J	39.6	**1020**	**2430**	<0.197	
	MW-91	Jun-20		478	**501**	1.19	<0.534	36.7	**813**	**2830**	<10.0	
	MW-92	Apr-16		130 O1	**415**	1.30	1.73 J	450 O1V	24.1	**2310**	0.602 J	
	MW-92	Oct-16		134	**539**	**1.63**	2.02	454	14.6	**2150**	<0.985	
	MW-93	Apr-17		489	192	**2.38**	2.97	167	**1430**	**2930**	<0.197	
	MW-93	Apr-18		537	193	**2.39**	3.55	191	**1400**	**2760**	<0.197	
	MW-93	Apr-19		505	214	**2.09**	3.76	195	**1400**	**2810**	0.0220 J	
	MW-93	Jun-20		491	233	**1.88**	3.11	163	**1070**	**2820**	<2.50	
	MW-94	Oct-15		109	245	1.01	0.224 J	355	75.8	**2530**	<0.197	
	MW-94	Apr-16		124	217	1.02	0.189 J	532	199	**2980**	<0.197	
	MW-94	Oct-16		137	172	1.04	0.467 J	319	175	**2530**	<0.0197	
	MW-94	Apr-17		95.6	196	0.874	0.331 J	427	85.7	**2660**	<0.197	
	MW-95	Apr-17		203 V	**349**	0.868	0.730 J	194 V	420	**1710**	<0.197	
	MW-95	Apr-18		229	**258**	0.884	0.602 J	163	471	**1770**	<0.0197	
	MW-95	Apr-19		246	**264**	0.830	0.472 J	172	561	**2020**	<0.0197	
	MW-95	Jun-20		250	**300**	0.739	<0.534	151	**682**	**2020**	<0.0500	
	MW-96	Apr-18		188	159	1.18	1.23	229	178	**1450**	<1.97	
	MW-96	Oct-18		186	157	1.10	0.985 J	217	235	**1530**	<0.197	
	MW-96	Apr-19		167	150	1.20	1.17	211	150	**1360**	0.141	
	MW-96	Oct-19		195	144	1.17	1.15	204	393	**1520**	<0.197	
	MW-96	Jun-20		147	131	1.32	1.52 J	200	95.2	**1320**	<2.50	
	MW-96	Oct-20		142	128	1.15	1.17 J	218	69.3 P1	**1420**	<0.0500	
	MW-98	Apr-18		543	81.5	**1.70**	0.235 JB	106	**1790**	**2910**	<1.97	
	MW-98	Oct-18		490	98.3	**1.65**	0.249 J	93.9	**1640**	**2320 J3**	<0.985	
	MW-98	Apr-19		575	126	**1.69**	<0.0370	127	**1800**	**2980**	<1.97	
	MW-98	Oct-19		575	185	**1.99**	0.257 J	115	**1520**	**3330**	<0.985	
	MW-98	Jun-20		561	239	**1.69**	<0.534	129	**1590**	**3280**	<5.00	
	MW-98	Oct-20		515	195	**1.73**	<0.534	125	**1300**	**3060**	<0.0500	
	MW-137	Oct-17		141	**548**	1.11	0.979 JB	759	**683**	**2910**	<0.394	<0.00180
	MW-137	Apr-18		143	**446**	1.41	1.23	955	**713**	**3420**	<0.985	<0.180
	MW-137	Oct-18		133	**406**	0.873	0.971 J	632	384	**2730**	<1.97	<0.180
	MW-137	Apr-19		142	**407**	1.28	1.14	845	**607**	**3380**	<1.97	<0.0900
	MW-138	Oct-17		124	**453**	1.06	1.50 B	401	27.9	**2100**	<0.0985	<0.00180
	MW-138	Apr-18		130	**453**	0.874	1.58	436	26.8	**1910**	<0.0197	<0.00180
	MW-138	Oct-18		122	**408**	0.802	1.60	362	30.3	**1510**	<0.0197	<0.00180
	MW-138	Apr-19		130	**435**	0.966	1.62	402	41.4	**1730**	<0.0197	<0.00180
	RW-1R	Apr-16		505	180	1.38	6.39	203	**1500**	**2990**	0.422 J	
	RW-1	Apr-17		558	246	1.41	7.37	268	**1860**	**3690**	<0.197	
	RW-1	Apr-18		363	**255**	0.913	2.24	247	**1030**	**1810**	<1.97	
	RW-1	Apr-19		337	**286**	0.866	1.87	266	**939**	**2690**	<1.97	
	RW-2	Apr-15		726	**365**	**1.75**	5.55 J	383	**3510**	**5310**	<0.200	
	RW-2R	Apr-16		875	**430**	**2.09**	5.80	396	**2200**	**3810**	0.281 J	
	RW-2	Apr-17		519	**251**	**2.35**	2.86	261	**1200**	**3030**	<0.197	
	RW-2	Apr-18		402	**317**	**1.75**	2.25	335	**731**	**2600**	<0.394	
	RW-7	Apr-17		266	204	0.513	0.922 J	105	**693**	**1740**	<0.197	
	RW-7	Apr-18		295	217	1.22	2.54	149	475	**1820**	<0.985	
	RW-7	Apr-19		247	239	1.05	1.63	150	426	**1830**	<0.197	
	RW-7	Jun-20		184	218	0.995	0.651 J	151	162	**1530**	<2.50	
	RW-8	Apr-15		227	115	0.801	0.353 J	209	473	**1600**	<0.200	
	RW-8	Apr-17		218	163	0.731	0.360 J	161	**665**	**1820**	<0.197	
	RW-9	Apr-17		355	**369**	**1.90**	2.26	326	**1370**	**3370**	<0.197	
	RW-9	Apr-18		322	**353**	**1.80**	2.13	351	**1170**	**2750**	<0.985	
	RW-9	Apr-19		309	**399**	1.46	1.91	356	**1160**	**3100**	<1.97	
	RW-9	Jun-20		293	**469**	1.21	1.51 J	425	**1140**	**3330**	<2.50	
	RW-10	Apr-17		457	88.0	**3.53**	3.24	110	**1500**	**2660**	<0.197	
	RW-10	Apr-18		499	131	**3.41**	3.49	143	**1530**	**2670**	<0.985	
	RW-10	Apr-19		572	65.9	**3.66**	3.68	102	**1470**	**2540 J3**	<0.197	
	RW-10	Jun-20		485	92.9	**3.87**	4.43	151	**1450**	**2520**	<0.0500	
	RW-16B	Apr-17		499	**291**	**4.90**	0.832 J	372	**2740**	**5030**	2.20	
	RW-16B	Apr-18		546	43.5	**4.89**	0.788 J	259	**2660**	**4240**	0.894 J6	
	RW-16B	Apr-19		540	83.0	**4.48**	0.677 J	333	**2690**	**4440**	1.47 J3J6	
	RW-16B	Jun-20		516	181	**3.78**	1.65 J	492	**2970**	**4720**	<0.0500	
	RW-17A	Apr-17		568	**398**	**2.61**	4.02	306	**2950**	**4820**	3.33	
	RW-17A	Apr-18		635	**358**	**2.31**	3.87	345	**3080**	**4430**	0.0920 J	
	RW-17A	Apr-19		563	**398**	**2.64**	2.97	286	**3290**	**5430**	<0.0197	
	RW-17A	Jun-20		554	**389**	**2.58**	4.62	306	**2940**	**5730**	0.386	
North RO Field	MW-117	Apr-18		604	124	**3.20**	6.30	111	**1070**	**2920**	0.207	
	MW-117	Oct-18		577	**327**	**2.78**	6.12	105	**1940**	**3500**	0.102	
	MW-117	Apr-19		686	**307**	**2.99**	7.11	127	**1980**	**3720**	0.0740 J	
	MW-117	Oct-19		582	**267**	**3.25**	6.50	99.5	**2010**	**3330**	0.376	
	MW-117	Jun-20		578	**299**	**3.43**	6.39	129	**2300**	**3640**	2.46	
	MW-117	Oct-20		587	**271**	**3.25**	6.68	133	**2030**	**3870 J3**	4.05	
	MW-118	Apr-18		607	**292**	**5.55**	4.86	136	**2480**	**3300**	1.21	
	MW-118	Oct-18		559	**259**	**5.06**	4.98	136	**1730**	**4120**	1.88	
	MW-118	Apr-19		648	**256**	**5.40**	5.40	144	**2390**	**3800**	1.06	
	MW-118	Oct-19		573	**286**	**5.28**	3.78	153	**2580**	**4260**	1.76	
	MW-118	Jun-20		586	**290**	**5.20**	3.45	171	**2950**	**4620**	2.43	
	MW-118	Oct-20		558	**262**	**5.06**	3.07 B	178	**2600**	**4640**	2.03	
	MW-119	Apr-18		616	**251**	**2.75**	1.10	177	**2240**	**2620**	0.288	
	MW-119	Oct-18		596	**439**	**2.56**	1.49	225	**1390**	**4200**	0.0610 J	
	MW-119	Apr-19		654	**404**	**2.59**	1.39	249	**2160**	**3680**	0.398	
	MW-119	Oct-19		633	**397**	**2.34**	1.31	203	**2360**	**4670**	0.132	
	MW-119	Jun-20		629	**345**	**1.66**	0.637 J	202	**2990**	**4500**	0.281	
	MW-119	Oct-20		641	**298**	1.39	0.832 JB	200 V	**2490**	**4420**	0.106	
South Refinery	KWB-2R	Apr-17		280	**279**	0.904	0.460 J	286	**1060**	**2550**	0.0220 J	
	KWB-2R	Oct-17		139	240	1.09	1.33	283	259	**1770**	<0.394	
	KWB-2R	Apr-19		322	246	0.656	0.516 JB	304	**1040**	**2370**	0.991 J	
	KWB-2R	Oct-19		169	**253**	0.927	0.534 J	246	345	**1590 J3**	<0.0197	
	KWB-5	Oct-17		220	**565**	0.877	1.41	208	21.9	**1560**	0.0530 J	
	KWB-5	Apr-18		233	**546**	0.861	1.95	215	9.96	**1730**	1.93	
	KWB-5	Oct-18		200	**546**	0.869	1.76 JB	208	11.8	**1450**	<0.0197	
	KWB-5	Apr-19		244	**525**	0.761	2.10	241	18.7	**1680**	<0.0197	
	KWB-6	Apr-17		227	**260**	0.965	0.183 J	120	211	**1630**	0.556 J	
	KWB-6	Oct-17		256	**290**	0.842	0.162 J	131	377	**1890**	<0.394	
	KWB-6	Apr-18		248	248	0.897	0.268 J	138	272	**1600**	0.0380 J	
	KWB-6	Oct-18		223	240	0.801	0.230 J	122	324	**1680 J3**	<0.0197	

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
South Refinery	MW-28	Apr-18		319	149	1.33	1.05	107	**1380**	**2290**	<0.394	<0.0180	
	MW-28	Oct-18		212	151	1.08 J3	1.72 JB	97.0	**960**	**1810**	<0.985	0.00263 JP1	
	MW-28	Apr-19		361	138	1.14	0.964 J	112	**1030**	**2920**	<0.985	<0.0180	
	MW-28	Oct-19		360	143	1.60	0.571 JB	101	**1630**	**2860**	<0.985	<0.0180 J4	
	MW-28	Jun-20		285	149	1.10	4.23	109	**1310**	**2610**	<0.250	<0.0360	
	MW-28	Oct-20		281	132	1.02	4.03	114	**1140**	**2670**	<0.0500	<0.00180	
	MW-48	Apr-18		200	**689**	**1.90**	0.776 J	269	9.52	**2490**	0.0860 J		
	MW-48	Oct-18		172 V	**498**	1.20	0.863 J	293 V	125	**1730 J4**	<0.394		
	MW-48	Apr-19		168	179	**1.82**	1.16	290	**1210**	**1630 J4**	<0.394		
	MW-48	Oct-19		159	**429**	1.08	1.12	297	85.7	**1580 J3**	<0.985		
	MW-50	Apr-18		558	**415**	**2.12**	4.09	531	**3440**	**5320**	9.78		
	MW-50	Oct-18		402	**338**	**1.85**	2.56	291	**2150**	**3790**	0.507		
	MW-50	Apr-19		469	**320**	1.50	2.62	334	**2340**	**4440**	1.48		
	MW-50	Oct-19		406	**298**	**1.80**	2.63	289	**2450**	**3260**	1.53		
	MW-50	Jun-20		495	**418**	**2.92**	4.42	577	**3370**	**5550 Q**	**74.6**		
	MW-50	Oct-20		490	**390**	**3.64**	4.05	682	**4100**	**7810**	**78.5 V**		
	MW-52	Apr-18		195	119	**1.81**	0.193 J	301	**1090**	**2100**	0.893	<0.00180	
	MW-52	Oct-18		175	115	**1.81**	0.209 J	272	**983**	**2420 J4**	4.22	<0.00180	
	MW-52	Apr-19		201	160	**1.87**	0.394 JB	321	**1080**	**2500 J3J4**	**12.7**	<0.00180	
	MW-52	Oct-19		206	**1140**	**1.71**	0.218 JB	322	**1110**	**2380 J3**	**13.3**	<0.00180	
	MW-52	Jun-20		239	195	**1.71**	<0.534	340	**1140**	**2810**	**13.0**	<0.00180	
	MW-52	Oct-20		223	195	**1.62**	<0.534	332	**1110**	**2720**	**15.3 V**	<0.00180	
	MW-64	Apr-18		93.7	**323**	0.795	0.697 J	362	1.84 J	**1500**	<0.985		
	MW-64	Oct-18		77.9	**309**	0.958	1.36 JB	312	3.78 J	**1390**	<0.985		
	MW-64	Apr-19		105	**295**	0.833	0.713 J	359	1.94 J	**1340**	<0.0197		
	MW-64	Oct-19		83.5	**325**	0.742	0.587 J	327	4.42 JB	**1480**	<0.197		
	MW-64	Jun-20		90.7	**324**	0.993	0.655 J	350	5.03	**1620**	<0.100		
	MW-64	Oct-20		88.5	**310**	0.710	0.586 JB	343	8.17	**1590**	<0.0500 J3J6		
	MW-65	Apr-18		132	**306**	1.33	0.732 J	264	10.2	**1340**	<0.0985		
	MW-65	Oct-18		127	**284**	1.12	0.823 JB	229	4.80 J	**1280**	<0.0197 J6		
	MW-65	Apr-19		155	**284**	0.967	0.532 JB	262	1.23 J	**1310**	<0.0197		
	MW-65	Oct-19		113	234	1.23	0.466 J	223	5.53 B	**1080**	<0.0197		
	MW-66	Apr-18		147	196	1.38	0.867 J	191	<0.0774	**1110**	<0.0197	<0.00180	
	MW-66	Oct-18		138	204	1.26	0.868 J	174	0.781 J	**1180**	<0.0197 J6	<0.00180	
	MW-66	Apr-19		145	187	1.23	1.21	189	0.718 J	**1140**	<0.0197	<0.00180	
	MW-66	Oct-19		121	168	1.04	1.18	131	6.99	912	<0.0197 J6	<0.00180	
	MW-66	Jun-20		136	188	1.13	0.842 J	155	1.16 J	**1070**	0.0979 J	<0.00180	
	MW-66	Oct-20		140	189	1.12	1.71 JB	145	6.68	**1060**	<0.0500	<0.00180	
	MW-99	Apr-18		179	**256**	0.686	0.745 J	237	128	**1410**	0.0540 J		
	MW-99	Oct-18		162	**254**	0.612	0.792 J	212	124	**1420**	<0.394		
	MW-99	Apr-19		184	225	0.572	1.31	214	145	**1390**	<0.394		
	MW-99	Oct-19		109	66.7	0.517	4.66	58.1	81.1	547	0.0300 J		
	MW-99	Jun-20		138	73.2	0.323	7.77	60.7	109	727	<0.0500		
	MW-101	Apr-18		197	228	0.909	0.538 J	154	173	**1380**	<0.0197		
	MW-101	Oct-18		183	215	0.759	0.482 J	133	163	**1280 J3**	<0.0197		
	MW-101	Apr-19		208	223	0.984	0.384 J	158	182	**1370**	<0.0197 J5		
	MW-101	Oct-19		192	212	0.994	0.482 JB	138	202	**1370**	<0.0197		
	MW-101	Jun-20		183	202	0.965	0.556 J	144	183	**1330**	<0.0500		
	MW-101	Oct-20		207	185	0.915	0.881 JB	137	234	**1410**	<0.0500		
	MW-102	Apr-18		136	26.4	0.954	0.960 J	406	5.49	**1380**	<0.985 J5		
	MW-102	Oct-18		88.3	**254**	0.883	0.605 JB	377	6.33	**1490**	<0.985		
	MW-102	Apr-19		101 V	**281**	0.797	0.275 J	401 V	23.3	**1510**	<0.197		
	MW-102	Oct-19		166	**294**	1.09	0.631 JB	392	190	**1870**	<0.197		
	MW-102	Jun-20		84.2	**285**	0.984	<0.534	446	21.2	**1610**	<0.0500		
	MW-102	Oct-20		91.9	**282**	0.812	<0.534	431	5.16	**1610**	<0.0500		
	MW-103	Apr-17		306	**12000**	1.39	3.12 J	10000	48.0	**22300**	0.0530 J		
	MW-103	Apr-18		94.1	**6800**	**7.41**	1.41	5980	60.4	**13400**	<0.394		
	MW-103	Apr-19		91.2	**4550**	**5.85**	1.16	3990	133	**9260**	<0.0197		
	MW-103	Jun-20		120	**4480**	**4.50**	1.21 J	2830	44.3	**7620**	<0.500		
	MW-104	Apr-18		207	102	**1.67**	5.95	74.9	417	**1110**	<0.394		
	MW-104	Apr-18	FD	229	106	**1.75**	7.12	76.8	437	**1110**	<0.0985		
	MW-104	Oct-18		275	123	**1.64**	8.34	86.6	**736**	**1610**	<0.985		
	MW-104	Oct-18	FD	313	126	1.57	8.09	92.8	**746**	**1640**	<0.197		
	MW-104	Apr-19		321	67.0	1.18	8.16	113	**780**	**1650**	<0.0197		
	MW-104	Apr-19	FD	296	67.7	1.21	7.37	78.0	**793**	**1590**	<0.197		
	MW-104	Oct-19		241	68.0	1.55	5.92	72.2	**757**	**1390**	<0.0197		
	MW-104	Oct-19	FD	244	67.9	1.56	6.00	72.5	**863**	**1300**	<0.197		
	MW-104	Jun-20		224	69.8	1.51	5.03	77.2	**703**	**1290**	<0.250		
	MW-104	Jun-20	FD	218	69.2	1.33	4.88	73.6	**703**	**1140**	<0.500		
	MW-104	Oct-20		256	71.7	1.34	5.63	73.9	**785**	**1470**	0.153		
	MW-104	Oct-20	FD	241	71.7	1.36	5.28	73.7	**702**	**1450**	<0.0500		
	MW-105	Apr-18		279	129	**1.96**	6.16	120	226	**1400**	<0.394		
	MW-105	Oct-18		291	99.9	1.12	6.13	74.8	414	**1470**	<0.394		
	MW-105	Apr-19		294	21.4	1.18	2.78	31.0	600	**1360**	<0.197		
	MW-105	Oct-19		453	28.0	1.04	4.72	26.0	**1120**	**2040**	<0.985		
	MW-105	Jun-20		243	98.8	1.43	2.74	71.7	177	**1220**	<2.50		
	MW-105	Oct-20		170	99.9	1.47	2.73	89.5	17.4	**1050**	<0.0500		
	MW-106	Apr-18		341	211	1.29	2.38	280	**1220**	**2180**	<1.97		
	MW-106	Oct-18		298	208	1.02	0.979 J	265	**979**	**2650**	<0.985		
	MW-106	Apr-19		225	150 B	0.952	2.09	153	**870**	**1900**	<0.985		
	MW-106	Oct-19		360	217	1.29	1.74	264	**1340**	**3240**	<0.985		
	MW-106	Jun-20		295	206	1.11	1.53 J	258	**1130**	**2890**	<10.0		
	MW-106	Oct-20		285	213	0.865	0.777 J	318	**980**	**3110**	<0.0500		
	MW-107	Oct-16		186	**271**	**1.82**	0.965 J	80.1	72.4	**1480**	0.170 B		
	MW-107	Apr-17		140	**313**	**1.76**	0.655 J	75.4	<0.0774	**1260**	<0.197		
	MW-107	Apr-18		147	**269**	**1.66**	0.555 J	81.7	1.08 J	**1370**	0.0410 J		
	MW-107	Apr-19		147	246	1.33	0.631 J	82.5	0.657 J	**1270**	<0.0197		
	MW-109	Apr-18		173	170	**2.25**	0.992 J	395	**864**	**2220**	0.0460 J		
	MW-109	Oct-18		147	177	**2.23**	0.906 J	373	**764**	**2160 Q**	0.108 J6		
	MW-109	Apr-19		103	180	**2.01**	0.935 J	470	589	**2010**	<0.0197		
	MW-109	Oct-19		98.3	190	**2.08**	0.720 JB	389	**710**	**1740**	0.0580 J		
	MW-109	Jun-20		87.7	191	**1.97**	0.786 J	423	496	**2150**	<2.50		
	MW-109	Oct-20		70.2	200	**1.86**	0.700 JB	430	376	**1990**	<0.0500		
	MW-110	Apr-18		99.2	102	1.46	0.381 J	286	138	**1170**	0.0410 J		
	MW-110	Oct-18		112	113	1.38	0.367 J	268	499	**1390**	<0.0197		
	MW-110	Apr-19		105	122	1.48	0.203 JB	278	403	**1340**	<0.0197		
	MW-110	Oct-19		103	105	1.41	0.0768 JB	256	529	**1240**	<0.0197		
	MW-110	Jun-20		97.8	95.6	1.39	<0.534	251	316	**1300**	<0.0500		
	MW-110	Oct-20		95.9	92.9	1.32	<0.534	252	401	**1290**	<0.0500		
	MW-139	Oct-19		395	249	0.748	1.16	247	**1790**	**3480**	<0.0197		
	MW-139	Jun-20		362	236	0.646	0.597 J	252	**2010**	**3620**	<0.0500		
	MW-139	Oct-20		373	186	0.533	0.560 J	286	**1510**	**3690**	<0.0500		
	RA-313	Apr-17		167	15.0	0.893	1.26	16.4	455	937	0.447 J		
	RA-313	Apr-18		181	15.3	0.888	0.954 J	18.0	467	819	0.507		
	RA-313	Apr-19		238	221	0.772	1.69	139	**605**	**1510**	0.533		
	RA-313	Jun-20		221	190	0.898	1.66 J	99.9	**635**	**1400**	0.570		

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
South Refinery	RW-4	Apr-17		151	**280**	0.977	1.50	177	318	**1510**	<0.197	
	RW-4	Apr-18		181	242	0.909	1.52	172	410	**1550**	<0.0197	
	RW-4	Apr-19		188	228	0.691	1.24	151	325	**1660**	<0.197	
	RW-4	Jun-20		201	232	0.778	1.13 J	130	446	**1710**	<0.500	
	RW-5R	Apr-15		4.82	**260**	0.965	0.461 J	189	0.376 J	565	<0.0200	
	RW-5R	Apr-16		4.61 J	**262**	0.564	0.364 J	203	0.655 J	399	0.495 J	
	RW-6	Apr-15		168	**414**	0.628	0.686 J	205	129	**1650**	0.0335 J	
	RW-6R	Apr-16		191	**405**	0.747	0.356 J	226	104	**1470**	0.485 JP1	
	RW-6	Apr-18		183	**409**	0.804	0.684 J	224	45.6	**1530**	0.0460 J	
	RW-6	Apr-19		165	**325**	0.620	0.598 J	191	3.36 J	**1350**	<0.394	
	RW-15C	Apr-17		160	**409**	0.774	1.59	269	19.4	**1610**	0.442 J	
	RW-15C	Apr-18		211 V	**652**	0.868	1.28	349 V	0.754 J	**1850**	<0.0197	
	RW-15C	Apr-19		247	**264**	0.882	1.63	322	**1070**	**2110 J4**	<0.0197	
South RO Field	MW-114	Apr-18		665	181	**1.97**	2.74	138	**2260**	**3000**	1.50	
	MW-114	Oct-18		581	207	**1.77**	2.46	117	**1050**	**3730**	0.395	
	MW-114	Apr-19		616	228	**2.02**	2.73	118	**2400**	**3540**	0.356	
	MW-114	Oct-19		593	226	**2.14**	2.61	126	**2010**	**3530**	0.571	
	MW-114	Jun-20		586	**251**	**2.17**	2.42	127	**2060**	**3470**	0.478 J5	
	MW-114	Oct-20		528	233	**2.07**	2.37 B	119	**1590**	**3300**	0.110	
	MW-115	Apr-18		455	**262**	**1.76**	0.580 J	232	**2830**	**3420**	0.0750 J	
	MW-115	Oct-18		397	231	1.47	0.549 J	191	**1720**	**4410**	0.325	
	MW-115	Apr-19		512 V	**281**	**2.12**	0.487 J	180 V	**2720**	**4240**	0.148	
	MW-115	Oct-19		431	**258**	**2.35**	0.496 J	184	**2280**	**4040**	0.163	
	MW-115	Jun-20		475	**424**	**2.09**	<0.534	187	**2590**	**4320**	3.94	
	MW-115	Oct-20		467	**406**	**1.73**	<0.534	179	**2350**	**4590**	3.99	
	MW-116	Apr-18		592	198	**2.55**	3.16	154	**2040**	**2950**	0.851	
	MW-116	Oct-18		557	226	1.15	1.18	170	**2150**	**4090**	0.727	
	MW-116	Apr-19		623	**263**	1.56	1.25	215	**2470**	**3890**	0.442	
	MW-116	Oct-19		546	**292**	**1.93**	1.52	175	**2600**	**3260**	0.417	
	MW-116	Jun-20		559	**282**	1.59	1.11 J	177	**2270**	**4210**	0.520	
	MW-116	Oct-20		550	**260**	1.53	1.14 JB	176	**1920**	**4040**	0.476	
TEL	MW-49	Apr-18		226	**379**	1.42	3.12	341	585	**1870**	<0.985	<0.0180
	MW-49	Oct-18		209	**355**	1.29	2.58	335	520	**2150**	<0.985	<0.180
	MW-49	Apr-19		225	**435**	1.51	2.96	340	592	**2160**	<0.985	<0.0180
	MW-49	Oct-19		199	**418**	1.58	2.93	318	470	**2320**	<0.985	<0.0180
	MW-49	Jun-20		210	**442**	1.38	2.90	309	487	**2350**	<2.50	<0.0900
	MW-49	Oct-20		196	**451**	1.30	2.45	308	437	**2340**	<0.0500	0.0121 J
	TEL-1	Apr-18		188	**272**	**2.23**	1.06 B	465	**815**	**2230**	<0.0197 J6	
	TEL-1	Oct-18		160	238	**2.13**	0.650 J	474	**719**	**2080**	<0.394	
	TEL-1	Apr-19		172	250	**2.14**	0.685 J	460	**803**	**2000**	<0.394	
	TEL-1	Oct-19		144	234	**2.23**	0.629 J	474	**640**	**2200**	<0.0197	
	TEL-1	Jun-20		143	184	**1.98**	0.565 J	435	**699**	**2140**	<0.500	
	TEL-2	Apr-18		260	222	1.08	1.78 B	451	**1200**	**2770**	<0.0985	
	TEL-2	Oct-18		266	205	0.967	1.14	363	**1360**	**2730**	<0.394	
	TEL-2	Apr-19		274	224	1.09	1.73	377	**1250**	**2940**	<0.394	
	TEL-2	Oct-19		298	159	1.28 B	1.30	407	**1610**	**3550**	<0.394	
	TEL-2	Jun-20		280	130	0.988	1.05 J	373	**1540**	**3400**	<0.500	
	TEL-3	Apr-18		302	**696**	**2.51**	6.00	308	442	**2440**	<0.0985	
	TEL-3	Apr-19		562	52.7	**2.77**	5.37	44.1	**1300**	**2290**	<0.0985	
	TEL-3	Oct-19		603	36.7	**3.06**	5.26	36.2	**1470**	**2790**	<0.985	
	TEL-3	Oct-20		424	114	**1.73**	2.55	86.5	**1290**	**2880**	<0.0500 J6	
	TEL-4	Apr-18		448	**360**	1.12	1.19 B	477	**2400**	**4330**	0.0230 J	
	TEL-4	Apr-18	FD	439	**362**	1.09	1.19 B	470	**2460**	**4490**	0.0280 J	
	TEL-4	Oct-18		242	28.5	1.48	0.449 J	286	**2050**	**2840**	<0.0197	
	TEL-4	Oct-18	FD	246	27.9	1.43	0.446 J	289	**2050**	**2910**	0.0700 J	
	TEL-4	Apr-19		262	36.8	1.45	0.438 J	204	**1830**	**3140**	<0.0197	
	TEL-4	Apr-19	FD	264	36.3	1.44	0.432 J	213	**1860**	**2830**	<0.0197	
	TEL-4	Oct-19		283	**281**	**2.09**	0.556 J	303	**1680**	**3540**	<0.394	
	TEL-4	Oct-19	FD	285	**274**	**2.05**	0.529 J	286	**1640**	**3570**	<0.394	
	TEL-4	Jun-20		305	**456**	0.932	<0.534	284 O1V	**1480**	**3770**	<0.500	
	TEL-4	Jun-20	FD	308	**455**	0.841	<0.534	286	**1490**	**3770**	<0.0500	
	TEL-4	Oct-20		294	**400**	0.904	<0.534	296 V	**1140**	**3470**	<0.0500	
	TEL-4	Oct-20	FD	291	**450**	0.834	<0.534	307	**1230**	**3510**	<0.0500	
Three Mile Ditch	MW-8	Apr-17		346	**334**	**2.20**	1.44	262	**2100**	**3900**	1.04	
	MW-8	Apr-18		450	**443**	**1.99**	1.76	320	**2470**	**4040**	8.72	
	MW-8	Apr-19		499	**450**	**2.08**	1.85	336	**3050**	**4640 J4**	**18.7**	
	MW-8	Jun-20		534	**599**	**2.04**	1.98 J	393	**3060**	**5260**	**16.0**	
	MW-16	Apr-17		558	**936**	**2.36 J6**	9.27	689	**2900**	**4150**	1.75	
	MW-16	Apr-18		600	**705**	**2.26**	9.59	643	**2820**	**4960**	0.428	
	MW-16	Apr-19		555	**349**	**2.57**	9.13	472	**2590**	**4590 J4**	0.790	
	MW-16	Jun-20		500	**446**	**2.69**	8.82	424	**2610**	**4390**	0.331	
	MW-20	Apr-17		525	**588**	**2.27**	0.425 J	274	**2800**	**5650**	8.74	
	MW-20	Apr-18		537	**525**	**2.13**	0.562 J	291	**2790**	**4700 J3**	4.56	
	MW-20	Apr-19		541	**373**	**2.27**	0.509 J	284	**2980**	**4710 Q**	2.02	
	MW-20	Jun-20		522	**382**	**2.26**	0.601 J	284	**2830**	**4590**	2.38	
	MW-21	Apr-18		550	**636**	**1.85**	2.03	425	**2900**	**4820**	**18.5**	
	MW-21	Oct-18		599 O1V	**620**	**1.92**	2.08 O1	448 O1V	**3290**	**4010**	**22.1**	
	MW-21	Apr-19		622	**628**	**2.02**	2.11	443	**3150**	**4990 J4**	**19.9**	
	MW-21	Oct-19		536	**592**	**1.68**	1.98	425	**2930**	**5410**	**15.1**	
	MW-21	Jun-20		586	**641**	**2.02**	2.17	440	**3130**	**5480**	**18.6**	
	MW-21	Oct-20		552	**616**	1.41	2.15	429	**2700**	**5600**	**17.5**	
	MW-25	Apr-17		484 V	**2330**	1.17	5.11	1540	**2800**	**6240**	0.152	
	MW-25	Apr-18		368 V	**1230**	1.25	4.32	875 V	**1770**	**4080**	0.156	
	MW-25	Apr-19		330	**1040**	1.00	4.19	771	**1510**	**3810**	2.98	
	MW-25	Jun-20		323	**976**	1.31	3.90	653	**1450**	**3610**	0.143	
	MW-26	Apr-17		707	**1580**	**1.75**	5.90	760	**5120**	**8730**	0.580	
	MW-26	Apr-18		664	**1120**	**1.61**	5.46	731	**3830**	**7170**	0.986	
	MW-26	Apr-19		584	**1010**	**2.09**	5.77	674	**4420**	**7020 Q**	1.66	
	MW-26	Jun-20		585	**671**	**2.06**	5.18	530	**3660**	**5990**	1.69	
	MW-27	Apr-17		410	138	1.29	8.43	136	**1550**	**2150**	1.22	
	MW-27	Apr-18		337	80.2	1.33	7.88	129	**1140**	**1870**	0.770	
	MW-27	Apr-19		297	55.2	1.42	7.82	104	**1030**	**1720 J4**	0.987	
	MW-27	Jun-20		301	56.7	1.38	7.62	91.0	**1070**	**1820**	1.78	
	MW-46R	Apr-18		613	**282**	**1.78**	1.43	192	**2310**	**3620**	<0.0197	
	MW-46R	Oct-18		582 V	207	1.42	1.22	174 V	**2330**	**3650**	0.0670 J	
	MW-46R	Apr-19		638	**319**	1.51	0.913 J	178	**2290**	**4030 J4**	0.293	
	MW-46R	Oct-19		602	**318**	1.29	0.949 J	178	**2390**	**4120**	0.527	
	MW-46R	Jun-20		607	204	1.43	0.731 J	172	**2550**	**3930**	0.0922 J	
	MW-46R	Oct-20		553	175 B	1.16	0.725 JB	166	**2070**	**3860**	<0.0500	
	MW-68	Apr-17		381	237	**1.88**	4.60	165	**1620**	**2890**	0.381	
	MW-68	Apr-18		388	176	**1.82**	5.01	162	**1470**	**2150**	0.390	
	MW-68	Apr-19		326	145	**2.12**	4.87	153	**1310**	**2260 J4**	1.08	
	MW-68	Jun-20		420	**354**	**1.89**	5.27	190	**1700**	**3040**	2.05	

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Appendix C, Table C.5 - Summary of Groundwater Analytical Data - Water Quality and Cyanide

2020 Annual Groundwater Monitoring Report

HollyFontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

				Analyte Group	Water Quality Parameters								Cyanide
				Analyte	Calcium	Chloride	Fluoride	Potassium	Sodium	Sulfate	TDS	Nitrate/Nitrite	Cyanide
				CAS	7440-70-2	16887-00-6	16984-48-8	7440-09-7	7440-23-5	14808-79-8	TDS	NO3NO2	57-12-5
				Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				CGWSL		250	1.60			600	1000	10.0	0.200
				CGWSL Source		WQCC Dom	WQCC HH			WQCC Dom	WQCC Dom	WQCC HH	WQCC HH
Area	**Well ID**	**Date**	**Dup**										
Three Mile Ditch	MW-71	Apr-17		601	**848**	**1.63**	3.62	491	**2940**	**5300**	**54.0**	<0.00180	
	MW-71	Apr-18		638	**809**	1.51	3.77	516	**2970**	**5280**	**39.5**	<0.00180	
	MW-71	Apr-19		673	**799**	**1.71**	3.47	502	**3260**	**5940 J4**	**32.1**	<0.00180	
	MW-71	Jun-20		630	**770**	**1.89**	3.51	510	**3130**	**6020**	**27.8**	<0.00180	
	MW-89	Apr-17		550	**394**	**3.97**	12.2	289	**2170**	**3600**	4.77		
	MW-89	Apr-18		513	170	**2.64**	8.61	151	**1630**	**2430**	1.10		
	MW-89	Apr-19		607 V	233	**3.32**	11.7	193 V	**1040**	**3470 J4**	1.34		
	MW-89	Jun-20		480	162	**2.92**	8.84	148	**1810**	**2810**	0.151		
	NP-1	Apr-18		421	**395**	**2.00**	4.52	342	**2210**	**3660**	5.66		
	NP-1	Oct-18											
	NP-1	Apr-19		445	**382**	**2.04**	3.94	325	**2280**	**4210 Q**	3.98		
	NP-1	Oct-19											
	NP-1	Jun-20		436	**409**	**1.89**	2.59	311	**2260**	**4060**	3.27		
	NP-1	Oct-20											
	NP-6	Apr-13											
	NP-6	Apr-15											
	NP-6	Apr-17											
	NP-6	Apr-19											
Upgradient	UG-1	Apr-17		471	178	0.928	1.14	99.1	**1830**	**3390**	**15.0**	<0.00180	
	UG-1	Apr-18		434	107	0.751	2.12	98.3	**1670**	**2600**	6.73	0.00224 JB	
	UG-1	Apr-19		525	98.3	0.623	1.29	105	**1800**	**3150**	**10.1**	<0.00180	
	UG-1	Jun-20		503	97.3	0.784	1.16 J	84.0	**2060**	**3550 B**	**10.6**	<0.00180	
	UG-2	Apr-17		342	78.9	**1.67**	1.60	94.0	**1060**	**2270**	**16.3**	<0.00180	
	UG-2	Apr-18		321	72.5	**1.62**	1.33	85.4	**1050**	**1810**	**14.1**	<0.00180	
	UG-2	Apr-19		357	61.3	1.32	1.58	90.6	**1020**	**2040 Q**	7.70 J6	<0.00180	
	UG-2	Jun-20		342	75.9	1.52	1.41 J	85.7	**1190**	**2150 B**	9.75	<0.00180	
	UG-3R	Apr-17		393	61.1	0.707	1.74	70.7	**1310**	**2140**	2.60	<0.00180 J5	
	UG-3R	Apr-18		418	40.8	0.599	1.67	73.6	**1470**	**2190**	1.68	<0.00180	
	UG-3R	Apr-19		479	36.3	0.502	1.99	37.1	**1390**	**2440**	0.905	<0.00180	
	UG-3R	Jun-20		440	39.6	0.582	1.93 J	30.1	**1560**	**2430**	1.93	<0.00180	
	UG-4	Apr-17		594 V	154	0.666	1.87	202 V	**2750**	**4350**	0.547 J	<0.00180	
	UG-4	Apr-18		620	125	0.574	1.77	201	**2680**	**4030**	0.515	<0.00180	
	UG-4	Apr-19		694	133	0.544	1.96	190	**2420**	**4210**	0.418	<0.00180	
	UG-4	Jun-20		622	108	0.605	1.78 J	168	**2810**	**4210 B**	0.326	<0.00180	

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
WQCC Dom	NMED Groundwater standard for domestic exposure, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
P1	Relative percent difference value not applicable for sample concentrations less than 5 times the reporting limit.
Q	Sample was prepared and/or analyzed past recommended holding time.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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Appendix C, Table C.6 - Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				1,1'-Biphenyl	1,2,4-Trichlorobenzene	1-Methyl-naphthalene	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,4-Dimethylphenol	2,4-Dinitrophenol	2,4-Dinitrotoluene	2,6-Di-nitrotoluene	2-Chloro-naphthalene
CAS:				92-52-4	120-82-1	90-12-0	95-95-4	88-06-2	120-83-2	105-67-9	51-28-5	121-14-2	606-20-2	91-58-7
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				0.0371	ND	0.0300	ND	ND	ND	0.354	ND	ND	ND	ND
CGWSL Source:				NMED TW	ND	WQCC HH	ND	ND	ND	NMED TW	ND	ND	ND	ND
Area	**Well ID**	**Date**	**Dup**											
North Refinery	MW-23	Apr-19		<0.00163	<0.00178	**0.0531**	<0.00118	<0.00148	<0.00142	<0.00312	<0.0163	<0.00825	<0.00140	<0.00165
	MW-23	Oct-19		<0.00650	<0.00710	**0.0922**	<0.00472	<0.00594	<0.00568	<0.0125	<0.0650	<0.0330	<0.00558	<0.00660
	MW-43	Apr-19		0.00228 J	<0.000359	**0.0323**	<0.000238	<0.000300	<0.000287	0.00418 J	<0.00328	<0.00167	<0.000282	<0.000333
	MW-43	Oct-19		<0.00650	<0.00710	**0.0956**	<0.00472	<0.00594	<0.00568	<0.0125	<0.0650	<0.0330	<0.00558	<0.00660
	MW-61	Apr-19		0.00315 J	<0.000355	**0.0722**	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	MW-61	Oct-19		<0.000325	<0.000355	**0.0902**	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	MW-62	Apr-19		0.00389 J	<0.000355	**0.0628**	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	MW-62	Oct-19		0.00865 J	<0.00710	**0.144**	<0.00472	<0.00594	<0.00568	<0.0125	<0.0650	<0.0330	<0.00558	<0.00660
	MW-93	Apr-19		0.00229 J	<0.000355	**0.0313**	<0.000236	<0.000297	<0.000284	0.0173	<0.00325	<0.00165	<0.000279	<0.000330
	MW-93	Jun-20		<0.00395	<0.000349	**0.0340**	<0.000545	<0.000500	<0.000510	0.0157 J	<0.0297	<0.000491	<0.00125	<0.000324
	MW-95	Apr-19		<0.000325	<0.000355	<0.000332	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	MW-95	Jun-20		<0.00188	<0.000166	<0.000188	<0.000259	<0.000238	<0.000243	<0.000151	<0.0141	<0.000234	<0.000595	<0.000154
	MW-137	Apr-19		<0.00650	<0.00710	**0.0480**	<0.00472	<0.00594	<0.00568	<0.0125	<0.0650	<0.0330	<0.00558	<0.00660
	MW-138	Apr-19		<0.000325	<0.000355	0.00549	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
TEL	TEL-4	Apr-19		<0.000325	<0.000355	0.00498	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	TEL-4	Apr-19	FD	<0.000325	<0.000355	0.00531	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	TEL-4	Oct-19		<0.000325	<0.000355	0.00275	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330
	TEL-4	Oct-19	FD	<0.000325	<0.000355	0.00300	<0.000236	<0.000297	<0.000284	<0.000624	<0.00325	<0.00165	<0.000279	<0.000330

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				2-Chlorophenol	2-Methyl-naphthalene	2-Methylphenol	2-Nitroaniline	2-Nitrophenol	3- & 4-Methylphenol (m,p-Cresol)	3,3'-Dichloro-benzidine	3-Nitro-aniline	4,6-Dinitro-2-methylphenol	4-Bromophenyl phenyl ether	4-Chloro-3-methylphenol
CAS:				95-57-8	91-57-6	95-48-7	88-74-4	88-75-5	65794-96-9	91-94-1	99-09-2	534-52-1	101-55-3	59-50-7
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				ND	0.0300	---	ND	ND	ND	ND	ND	ND	ND	ND
CGWSL Source:				ND	WQCC HH	---	ND	ND	ND	ND	ND	ND	ND	ND
Area	**Well ID**	**Date**	**Dup**											
North Refinery	MW-23	Apr-19		<0.00141	<0.00156	<0.00156	<0.00950	<0.00160	<0.00133	<0.0101	<0.00154	<0.0131	<0.00168	<0.00132
	MW-23	Oct-19		<0.00566	<0.00622	<0.00624	<0.0380	<0.00640	<0.00532	<0.0404	<0.00616	<0.0524	<0.00670	<0.00526
	MW-43	Apr-19		<0.000286	0.0232	<0.000315	<0.00192	<0.000323	<0.000269	<0.00204	<0.000311	<0.00265	<0.000338	<0.000266
	MW-43	Oct-19		<0.00566	**0.0603**	<0.00624	<0.0380	<0.00640	<0.00532	<0.0404	<0.00616	<0.0524	<0.00670	<0.00526
	MW-61	Apr-19		<0.000283	0.0119	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	MW-61	Oct-19		<0.000283	0.0163	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	MW-62	Apr-19		<0.000283	**0.0320**	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	MW-62	Oct-19		<0.00566	**0.0581**	<0.00624	<0.0380	<0.00640	<0.00532	<0.0404	<0.00616	<0.0524	<0.00670	<0.00526
	MW-93	Apr-19		<0.000283	0.00507	0.0979	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	MW-93	Jun-20		<0.000665	<0.000585	<0.000465	<0.000510	<0.000585	<0.000840	<0.00106	<0.000435	<0.00560	<0.000439	<0.000655
	MW-95	Apr-19		<0.000283	<0.000311	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	MW-95	Jun-20		<0.000317	<0.000278	<0.000221	<0.000243	<0.000278	<0.000400	<0.000505	<0.000207	<0.00267	<0.000209	<0.000312
	MW-137	Apr-19		<0.00566	**0.0474**	<0.00624	<0.0380	<0.00640	<0.00532	<0.0404	<0.00616	<0.0524	<0.00670	<0.00526
	MW-138	Apr-19		<0.000283	0.00356	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
TEL	TEL-4	Apr-19		<0.000283	<0.000311	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	TEL-4	Apr-19	FD	<0.000283	<0.000311	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	TEL-4	Oct-19		<0.000283	<0.000311	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263
	TEL-4	Oct-19	FD	<0.000283	<0.000311	<0.000312	<0.00190	<0.000320	<0.000266	<0.00202	<0.000308	<0.00262	<0.000335	<0.000263

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				4-Chloroaniline	4-Chlorophenyl phenyl ether	4-Nitroaniline	4-Nitrophenol	Acenaph-thene	Acenaph-thylene	Aceto-phenone	Anthracene	Atrazine	Benzal-dehyde	Benzo(a) anthracene
CAS:				106-47-8	7005-72-3	100-01-6	100-02-7	83-32-9	208-96-8	98-86-2	120-12-7	1912-24-9	100-52-7	56-55-3
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				ND	ND	ND	ND	0.535	ND	ND	1.72	0.00300	ND	ND
CGWSL Source:				ND	ND	ND	ND	NMED TW	ND	ND	NMED TW	WQCC HH	ND	ND
Area	**Well ID**	**Date**	**Dup**											
North Refinery	MW-23	Apr-19		<0.00191	<0.00152	<0.00174	<0.0101	<0.00158	<0.00154	<0.0123	<0.00146	0.00173 J	<0.00700	<0.000255
	MW-23	Oct-19		<0.00764	<0.00606	<0.00698	<0.0402	<0.00632	<0.00618	<0.0494	<0.00582	<0.00520	<0.0280	<0.00102
	MW-43	Apr-19		<0.000386	<0.000306	<0.000352	<0.00203	0.000872 J	<0.000312	<0.00249	<0.000294	0.000347 J	<0.00141	<0.0000515
	MW-43	Oct-19		<0.00764	<0.00606	<0.00698	<0.0402	<0.00632	<0.00618	<0.0494	<0.00582	<0.00520	<0.0280	<0.00102
	MW-61	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000667 J	<0.000309	<0.00247	<0.000291	<0.000260	<0.00140	<0.0000510
	MW-61	Oct-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000689 J	<0.000309	<0.00247	<0.000291	<0.000260	<0.00140	<0.0000510
	MW-62	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.00134	<0.000309	<0.00247	<0.000291	<0.000260	<0.00140	<0.0000510
	MW-62	Oct-19		<0.00764	<0.00606	<0.00698	<0.0402	<0.00632	<0.00618	<0.0494	<0.00582	<0.00520	<0.0280	<0.00102
	MW-93	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.00176	<0.000309	<0.00247	0.00179	<0.000260	<0.00140	<0.0000510
	MW-93	Jun-20		<0.00117	<0.000463	<0.000455	<0.000715	0.00190 J	<0.000461	<0.00104	0.00137 J	<0.00128	<0.00845 J4	<0.000995
	MW-95	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000508 J	<0.000309	<0.00247	<0.000291	0.00126 J	<0.00140	<0.0000510
	MW-95	Jun-20		<0.000557	<0.000220	<0.000217	<0.000340	0.000679 J	<0.000219	<0.000495	<0.000191	<0.000607	<0.00402 J4	<0.000474
	MW-137	Apr-19		<0.00764	<0.00606	<0.00698	<0.0402	<0.00632	<0.00618	<0.0494	<0.00582	<0.00520	<0.0280	<0.00102
	MW-138	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000968 J	<0.000309	<0.00247	<0.000291	0.000420 J	<0.00140	<0.0000510
TEL	TEL-4	Apr-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000493 J	<0.000309	<0.00247	<0.000291	<0.000260	<0.00140	<0.0000510
	TEL-4	Apr-19	FD	<0.000382	<0.000303	<0.000349	<0.00201	0.000532 J	<0.000309	<0.00247	<0.000291	<0.000260	<0.00140	<0.0000510
	TEL-4	Oct-19		<0.000382	<0.000303	<0.000349	<0.00201	0.000378 J	<0.000309	<0.00247	<0.000291	0.000434 J	<0.00140	<0.0000510
	TEL-4	Oct-19	FD	<0.000382	<0.000303	<0.000349	<0.00201	0.000465 J	<0.000309	<0.00247	<0.000291	0.000340 J	<0.00140	<0.0000510

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				Benzo(a)pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k)-fluoranthene	Bis(2-chloroethoxy) methane	Bis(2-chloroethyl) ether	Bis(2-chloro-isopropyl) ether	Bis(2-ethylhexyl) phthalate	Butylbenzyl-phthalate	Caprolactam	Carbazole
CAS:				50-32-8	205-99-2	191-24-2	207-08-9	111-91-1	111-44-4	108-60-1	117-81-7	85-68-7	105-60-2	86-74-8
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				0.000200	ND	---	ND	ND	ND	ND	0.00600	0.0160	ND	---
CGWSL Source:				WQCC HH	ND	---	ND	ND	ND	ND	USEPA MCL	USEPA TW	ND	---
Area	**Well ID**	**Date**	**Dup**											
North Refinery	MW-23	Apr-19		<0.000191	<0.000448	<0.0000113	<0.00178	<0.00164	<0.00810	<0.00222	0.00460 J	<0.00138	<0.0130	0.0132 J
	MW-23	Oct-19		<0.000762	<0.00179	<0.0000454	<0.00710	<0.00658	<0.0324	<0.00890	<0.0142	<0.00550	<0.0518	0.0251 J
	MW-43	Apr-19		<0.0000385	<0.0000905	<0.00000229	<0.000359	<0.000332	<0.00164	<0.000449	0.000920 J	0.00115 J	<0.00262	0.00772 J
	MW-43	Oct-19		<0.000762	<0.00179	<0.0000454	<0.00710	<0.00658	<0.0324	<0.00890	<0.0142	<0.00550	<0.0518	0.0145 J
	MW-61	Apr-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	**0.00818**	<0.000275	<0.00259	0.00142 J
	MW-61	Oct-19		<0.0000381	<0.0000896	0.00000240 J	<0.000355	<0.000329	<0.00162	<0.000445	0.00187 J	<0.000275	<0.00259	0.00127 J
	MW-62	Apr-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.00168 J	<0.000275	<0.00259	0.00472 J
	MW-62	Oct-19		<0.000762	<0.00179	<0.0000454	<0.00710	<0.00658	<0.0324	<0.00890	<0.0142	<0.00550	<0.0518	0.0103 J
	MW-93	Apr-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.00129 J	<0.000275	<0.00259	0.0257
	MW-93	Jun-20		<0.000191	<0.000650	<0.000605	<0.000600	<0.000580	<0.000685	<0.00105	<0.00448	<0.00383	<0.00154	0.0264 J
	MW-95	Apr-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.000850 J	<0.000275	<0.00259	<0.000260
	MW-95	Jun-20		<0.0000907	<0.000309	<0.000288	<0.000286	<0.000276	<0.000326	<0.000500	<0.00213	<0.00182	<0.000735	<0.000264
	MW-137	Apr-19		<0.000762	<0.00179	<0.0000454	<0.00710	<0.00658	<0.0324	<0.00890	<0.0142	<0.00550	<0.0518	<0.00520
	MW-138	Apr-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	<0.000709	<0.000275	<0.00259	0.000643 J
TEL	TEL-4	Apr-19		0.000119 JB	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	**0.0641**	<0.000275	<0.00259	<0.000260
	TEL-4	Apr-19	FD	<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.000835 J	<0.000275	<0.00259	<0.000260
	TEL-4	Oct-19		<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.00120 J	<0.000275	<0.00259	0.000400 J
	TEL-4	Oct-19	FD	<0.0000381	<0.0000896	<0.00000227	<0.000355	<0.000329	<0.00162	<0.000445	0.00146 J	<0.000275	<0.00259	0.000289 J

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Appendix C, Table C.6 - Summary of Groundwater Analytical Data - Semi-Volatile Organic Compounds

2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				Chrysene	Dibenz(a,h) anthracene	Dibenzofuran	Diethyl phthalate	Dimethyl-phthalate	Di-n-butyl-phthalate	Di-n-octyl-phthalate	Fluoranthene	Fluorene	Hexachloro-benzene	Hexachloro-butadiene	Hexachloro-cyclopentadiene
CAS:				218-01-9	53-70-3	132-64-9	84-66-2	131-11-3	84-74-2	117-84-0	206-44-0	86-73-7	118-74-1	87-68-3	77-47-4
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				ND	ND	0.00790	14.8	ND	0.885	ND	0.802	0.288	ND	ND	ND
CGWSL Source:				ND	ND	USEPA TW	NMED TW	ND	NMED TW	ND	NMED TW	NMED TW	ND	ND	ND
Area	**Well ID**	**Date**	**Dup**												
North Refinery	MW-23	Apr-19		<0.00166	<0.000322	0.00394 J	<0.00141	<0.00141	<0.00133	<0.00139	<0.00155	0.00472 J	<0.00170	<0.00164	<0.0117
	MW-23	Oct-19		<0.00664	<0.00129	**0.00924 J**	<0.00564	<0.00566	<0.00532	<0.00556	<0.00620	0.0112 J	<0.00682	<0.00658	<0.0466
	MW-43	Apr-19		<0.000335	<0.0000650	0.00192 J	<0.000285	<0.000286	<0.000269	<0.000281	<0.000313	0.00264	<0.000344	<0.000332	<0.00235
	MW-43	Oct-19		<0.00664	<0.00129	<0.00676	<0.00564	<0.00566	<0.00532	<0.00556	<0.00620	0.00946 J	<0.00682	<0.00658	<0.0466
	MW-61	Apr-19		<0.000332	<0.0000644	0.00293 J	<0.000282	<0.000283	<0.000266	<0.000278	<0.000310	0.00193	<0.000341	<0.000329	<0.00233
	MW-61	Oct-19		<0.000332	<0.0000644	0.00398 J	<0.000282	<0.000283	<0.000266	<0.000278	<0.000310	0.00285	<0.000341	<0.000329	<0.00233
	MW-62	Apr-19		<0.000332	<0.0000644	0.00458 J	<0.000282	<0.000283	<0.000266	<0.000278	<0.000310	0.00221	<0.000341	<0.000329	<0.00233
	MW-62	Oct-19		<0.00664	<0.00129	**0.0128 J**	<0.00564	<0.00566	<0.00532	<0.00556	<0.00620	0.00862 J	<0.00682	<0.00658	<0.0466
	MW-93	Apr-19		<0.000332	<0.0000644	0.00397 J	<0.000282	<0.000283	<0.000266	<0.000278	0.000373 J	0.00784	<0.000341	<0.000329	<0.00233
	MW-93	Jun-20		<0.000650	<0.000322	0.00396 J	<0.00143	<0.00130	<0.00227	<0.00466	<0.000510	0.00813	<0.000378	<0.000484	<0.000299
	MW-95	Apr-19		<0.000332	<0.0000644	0.00173 J	<0.000282	<0.000283	<0.000266	<0.000278	<0.000310	<0.000323	<0.000341	<0.000329	<0.00233
	MW-95	Jun-20		<0.000309	<0.000153	0.00259 J	<0.000683	<0.000619	<0.00108	<0.00222	<0.000243	<0.000201	<0.000180	<0.000230	<0.000142
	MW-137	Apr-19		<0.00664	<0.00129	<0.00676	0.00635 J	<0.00566	<0.00532	<0.00556	<0.00620	<0.00646	<0.00682	<0.00658	<0.0466
	MW-138	Apr-19		<0.000332	<0.0000644	0.000611 J	<0.000282	<0.000283	<0.000266	<0.000278	<0.000310	0.00138	<0.000341	<0.000329	<0.00233
TEL	TEL-4	Apr-19		<0.000332	<0.0000644	0.00177 J	<0.000282	<0.000283	0.000273 J	<0.000278	<0.000310	0.00118	<0.000341	<0.000329	<0.00233
	TEL-4	Apr-19	FD	<0.000332	<0.0000644	0.00205 J	<0.000282	<0.000283	0.000267 J	<0.000278	<0.000310	0.00106	<0.000341	<0.000329	<0.00233
	TEL-4	Oct-19		<0.000332	<0.0000644	0.00161 J	<0.000282	<0.000283	0.000312 J	<0.000278	<0.000310	0.000570 J	<0.000341	<0.000329	<0.00233
	TEL-4	Oct-19	FD	<0.000332	<0.0000644	0.00169 J	<0.000282	<0.000283	0.000278 J	<0.000278	<0.000310	0.000676 J	<0.000341	<0.000329	<0.00233

Analyte Group:				Semi-Volatile Organic Compounds										
Analyte:				Hexachloro-ethane	Indeno(1,2,3-cd) pyrene	Isophorone	Naphthalene	Nitro-benzene	n-Nitroso-di-n-propylamine	N-Nitro-sodi-phenylamine	Pentachloro-phenol	Phenanthrene	Phenol	Pyrene
CAS:				67-72-1	193-39-5	78-59-1	91-20-3	98-95-3	621-64-7	86-30-6	87-86-5	85-01-8	108-95-2	129-00-0
Units:				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
CGWSL:				ND	ND	ND	0.0300	ND	ND	ND	ND	0.170	0.00500	0.117
CGWSL Source:				ND	ND	ND	WQCC HH	ND	ND	ND	ND	NMED TW	NMED TW	NMED TW
Area	**Well ID**	**Date**	**Dup**											
North Refinery	MW-23	Apr-19		<0.00183	<0.00140	<0.00136	**0.0450**	<0.00184	<0.00201	<0.00595	<0.00157	0.00788	**0.0133 J**	<0.00165
	MW-23	Oct-19		<0.00730	<0.00558	<0.00544	0.0262	<0.00734	<0.00806	<0.0238	<0.00626	0.0146 J	**0.0166 J**	<0.00660
	MW-43	Apr-19		<0.000369	<0.000282	<0.000275	**0.0749**	<0.000371	<0.000407	<0.00120	<0.000316	0.00224	**0.00703 J**	<0.000333
	MW-43	Oct-19		<0.00730	<0.00558	<0.00544	**0.249**	<0.00734	<0.00806	<0.0238	<0.00626	0.00892 J	<0.00668	<0.00660
	MW-61	Apr-19		<0.000365	<0.000279	<0.000272	**0.0701**	<0.000367	<0.000403	<0.00119	<0.000313	0.00126	0.00457 J	<0.000330
	MW-61	Oct-19		<0.000365	<0.000279	<0.000272	**0.0831**	<0.000367	<0.000403	<0.00119	<0.000313	0.00146	0.00164 J	<0.000330
	MW-62	Apr-19		<0.000365	<0.000279	<0.000272	**0.0861**	<0.000367	<0.000403	<0.00119	<0.000313	0.00191	<0.000334	<0.000330
	MW-62	Oct-19		<0.00730	<0.00558	<0.00544	**0.168**	<0.00734	<0.00806	<0.0238	<0.00626	<0.00732	<0.00668	<0.00660
	MW-93	Apr-19		<0.000365	<0.000279	<0.000272	**0.0307**	<0.000367	<0.000403	<0.00119	<0.000313	0.0119	0.00492 J	0.000570 J
	MW-93	Jun-20		<0.000635	<0.00140	<0.000715	0.0298	<0.00148	<0.00131	<0.0119	<0.00157	0.0132	<0.0217	0.000746 J
	MW-95	Apr-19		<0.000365	<0.000279	<0.000272	<0.000372	<0.000367	<0.000403	<0.00119	<0.000313	<0.000366	0.00279 J	<0.000330
	MW-95	Jun-20		<0.000302	<0.000664	<0.000340	0.00115 JB	<0.000707	<0.000621	<0.00564	<0.000745	<0.000267	<0.0103	<0.000255
	MW-137	Apr-19		<0.00730	<0.00558	<0.00544	**0.116**	<0.00734	<0.00806	<0.0238	<0.00626	<0.00732	<0.00668	<0.00660
	MW-138	Apr-19		<0.000365	<0.000279	<0.000272	0.0117	<0.000367	<0.000403	<0.00119	<0.000313	0.000583 J	0.00288 J	<0.000330
TEL	TEL-4	Apr-19		<0.000365	<0.000279	<0.000272	<0.000372	<0.000367	<0.000403	<0.00119	<0.000313	<0.000366	0.00150 J	<0.000330
	TEL-4	Apr-19	FD	<0.000365	<0.000279	<0.000272	<0.000372	<0.000367	<0.000403	<0.00119	<0.000313	<0.000366	0.00177 J	<0.000330
	TEL-4	Oct-19		<0.000365	<0.000279	<0.000272	0.000383 J	<0.000367	<0.000403	<0.00119	<0.000313	<0.000366	0.000961 J	<0.000330
	TEL-4	Oct-19	FD	<0.000365	<0.000279	<0.000272	0.000395 J	<0.000367	<0.000403	<0.00119	<0.000313	<0.000366	0.00146 J	<0.000330

Definitions

X	Reported concentration, X, exceeds the CGWSL.
X	Analyte detected above the detection limit at a concentration equal to X.
<x	Analyte not detected at detection limit equal to x.
<x	Analyte not detected at detection limit equal to x, but x exceeds the CGWSL.
	Blank cell indicates a sample was collected from the well during the indicated sampling event, but the analyte was not analyzed.
---	No applicable CGWSL.
ND	CGWSL not determined for SVOCs that were not detected above detection limit during any sampling event

Abbreviations

CGWSL	Critical Groundwater Screening Level (see Table 3)
CGWSL Source	Source for CGWSL value (see Table 3)
Dup	Duplicate sample
FD	Field duplicate sample
mg/L	Milligrams per Liter
NMED TW	NMED Risk Assessment Guidance for Site Investigations and Remediation, February 2019, Rev 2 (6/19/19), Table A-1 Tap Water Screening Level
USEPA MCL	United States Environmental Protection Agency Maximum Contaminant Level from "Regional Screening Level (RSL) Summary Table", November 2020
USEPA TW	United States Environmental Protection Agency Tap Water Screening Level, "Regional Screening Levels (RSL) Summary Table", November 2020
WQCC Dom	NMED Groundwater standard for domestic water supply, 20.6.2.3103.B NMAC
WQCC HH	NMED Groundwater standard for human health exposure, 20.6.2.3103.A NMAC

Lab Footnote

B	Analyte was also detected in the associated method blank.
J	Indicates an estimated value.
J4	The associated batch QC was outside the established quality control range for accuracy.

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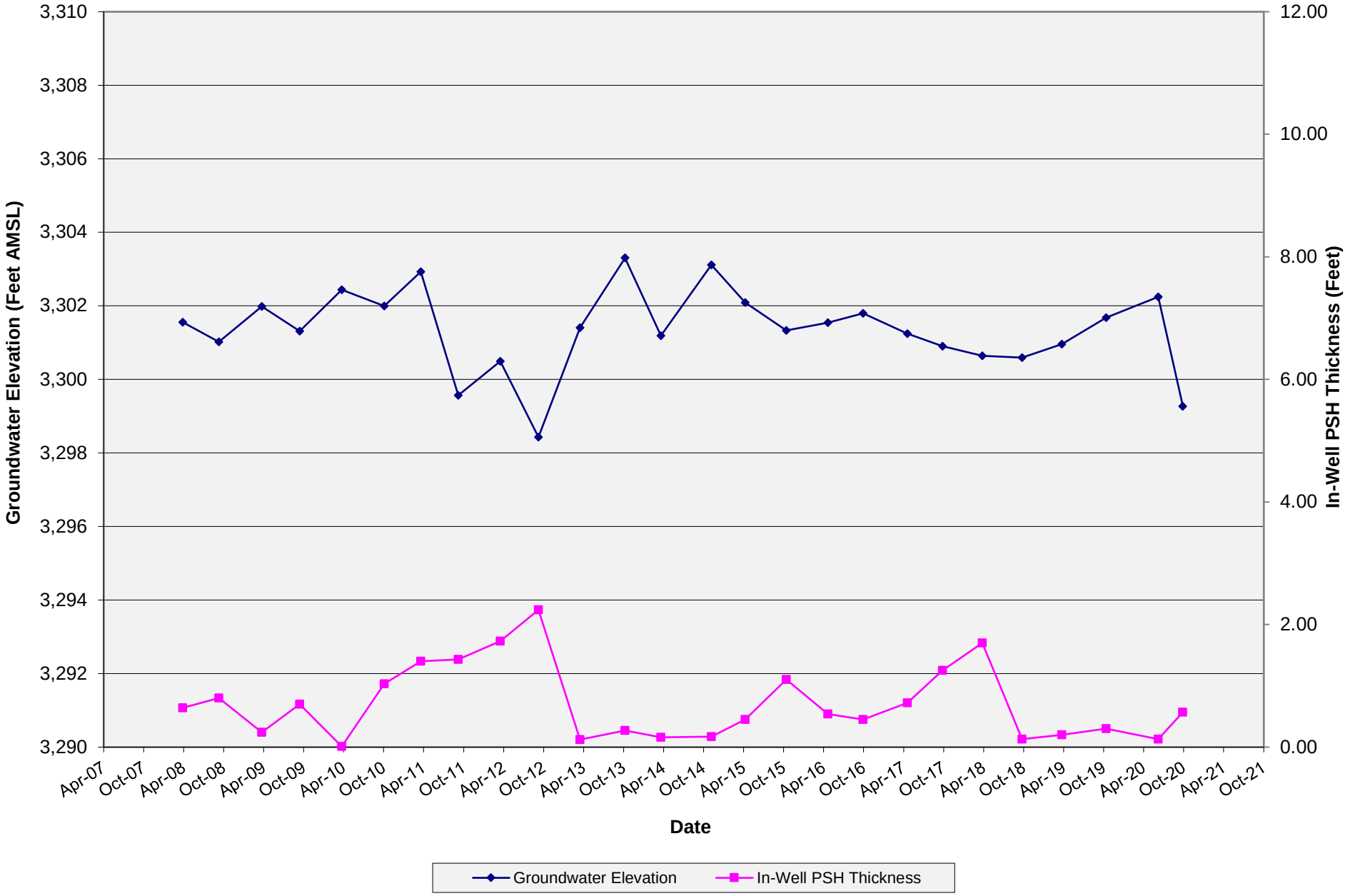
Appendix D

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MW-85: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Evaporation Ponds

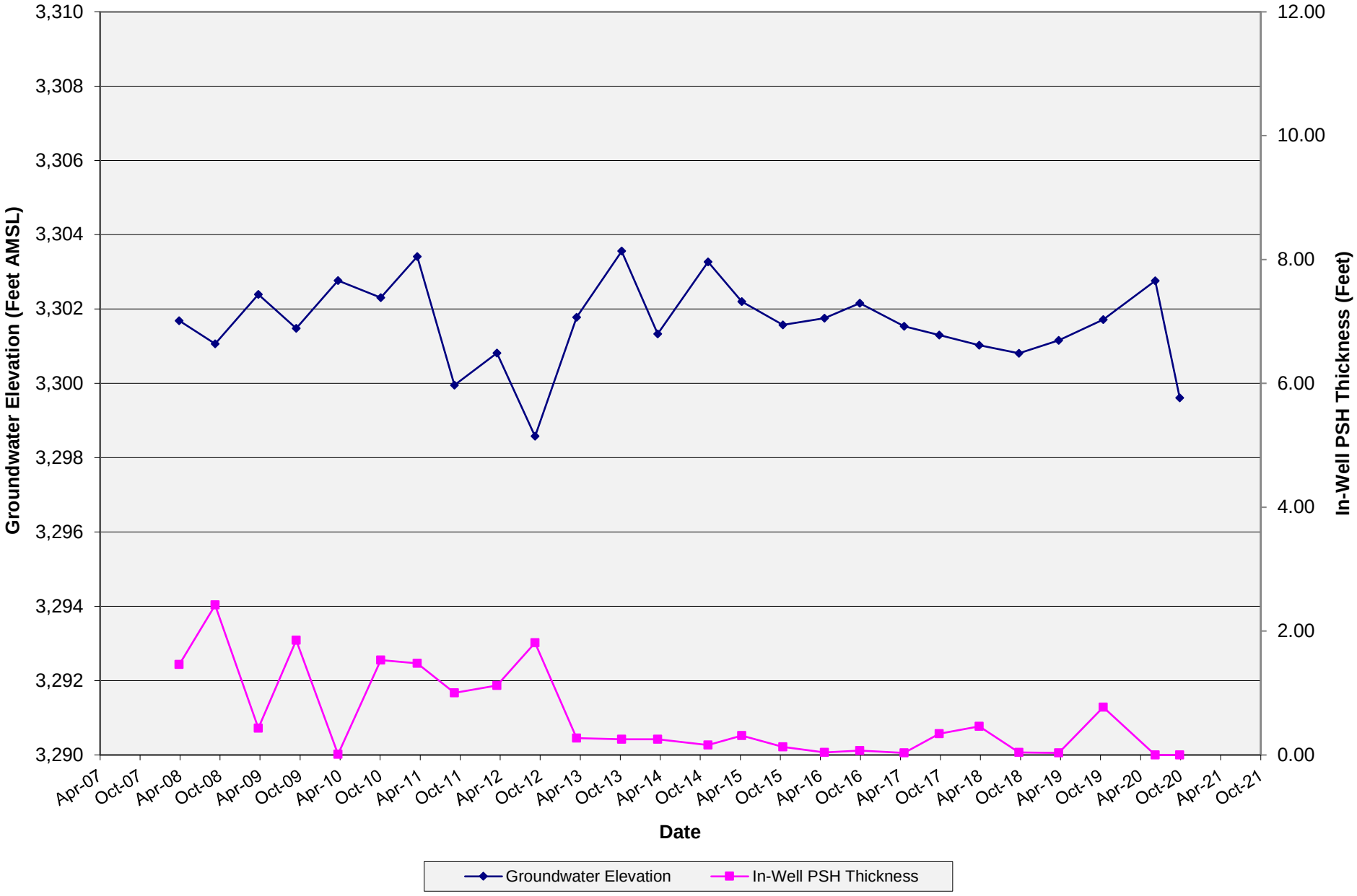


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MW-86: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Evaporation Ponds

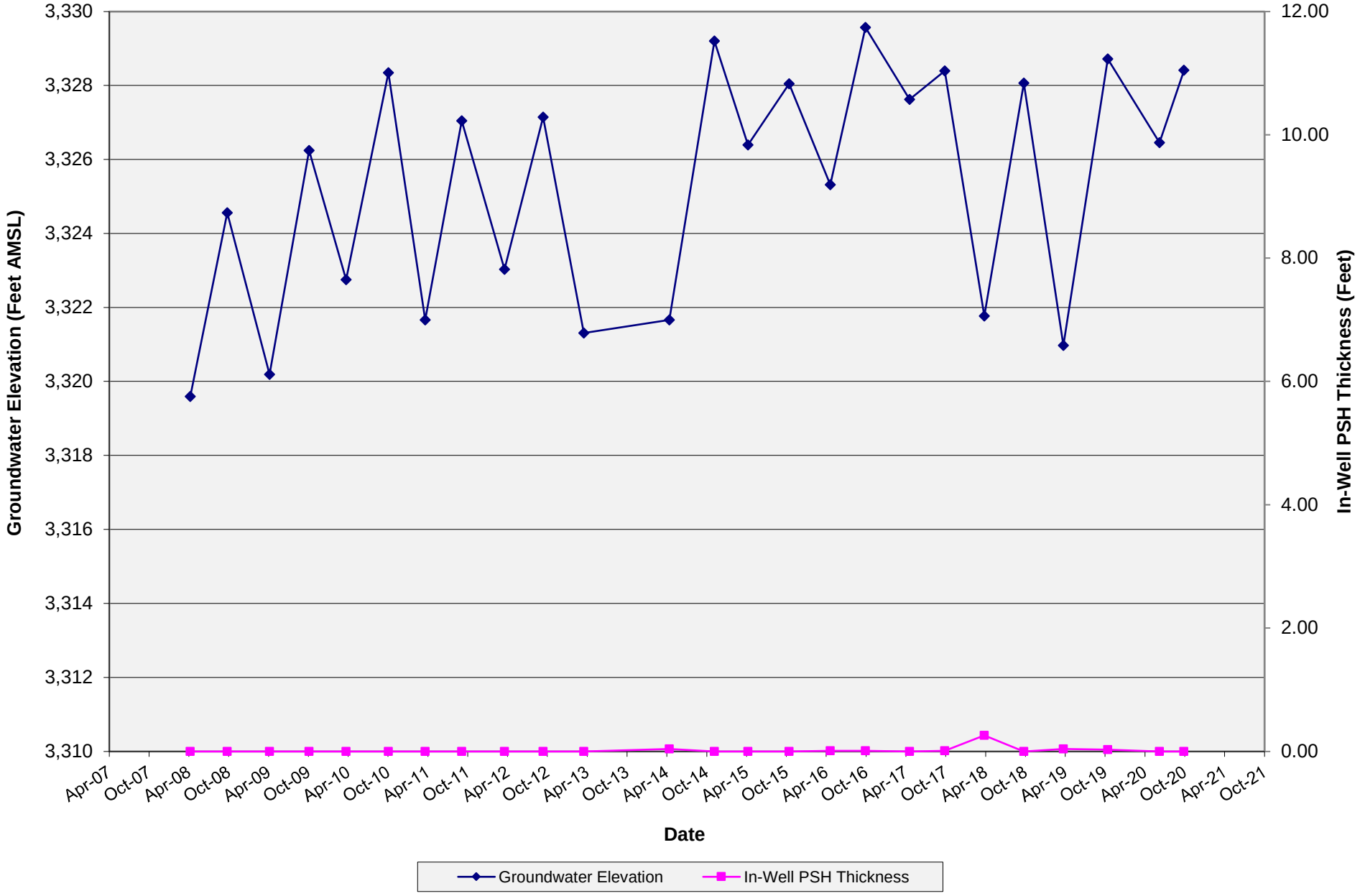


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KWB-7: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

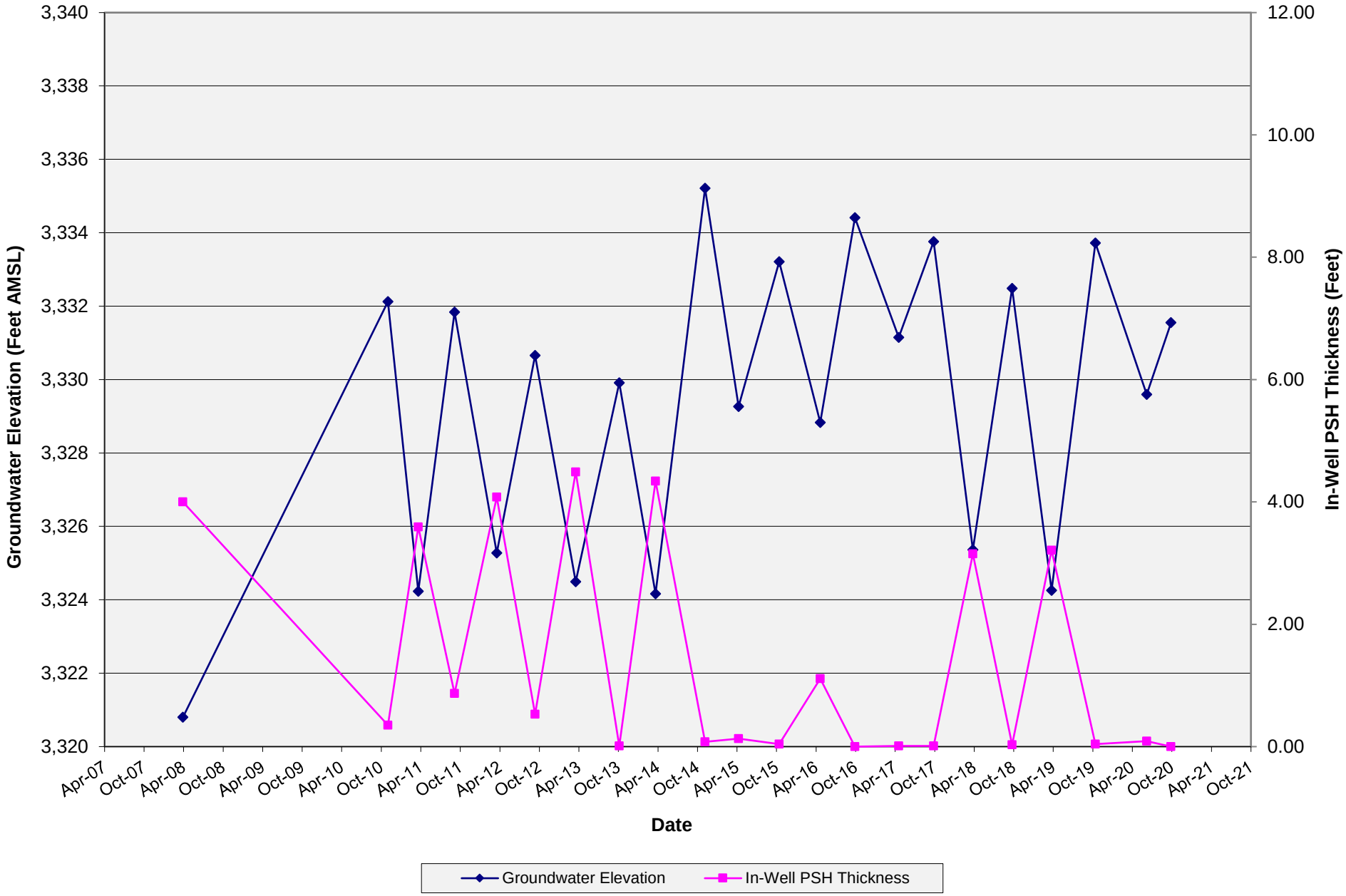


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KWB-8: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

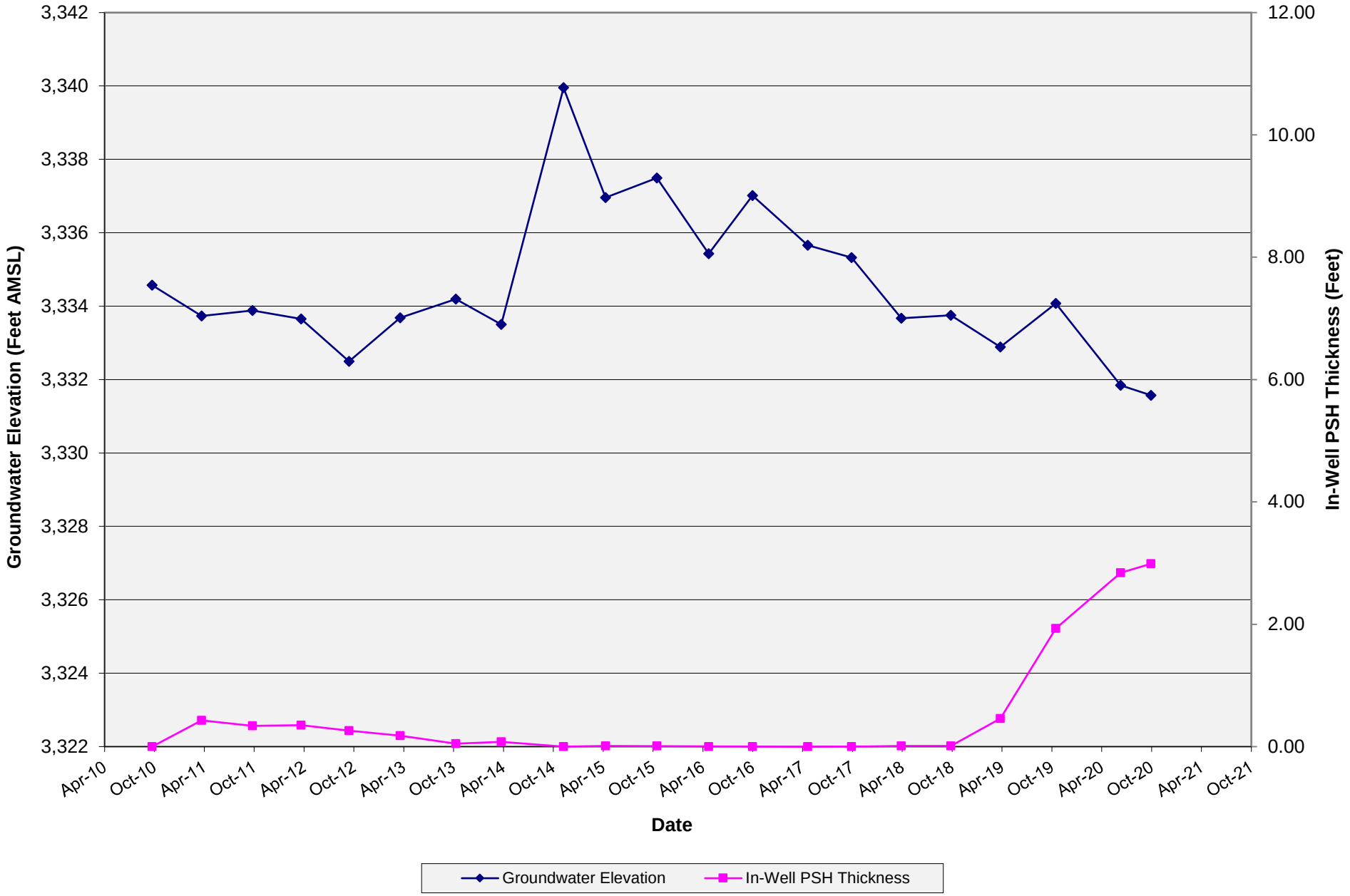


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KWB-10R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

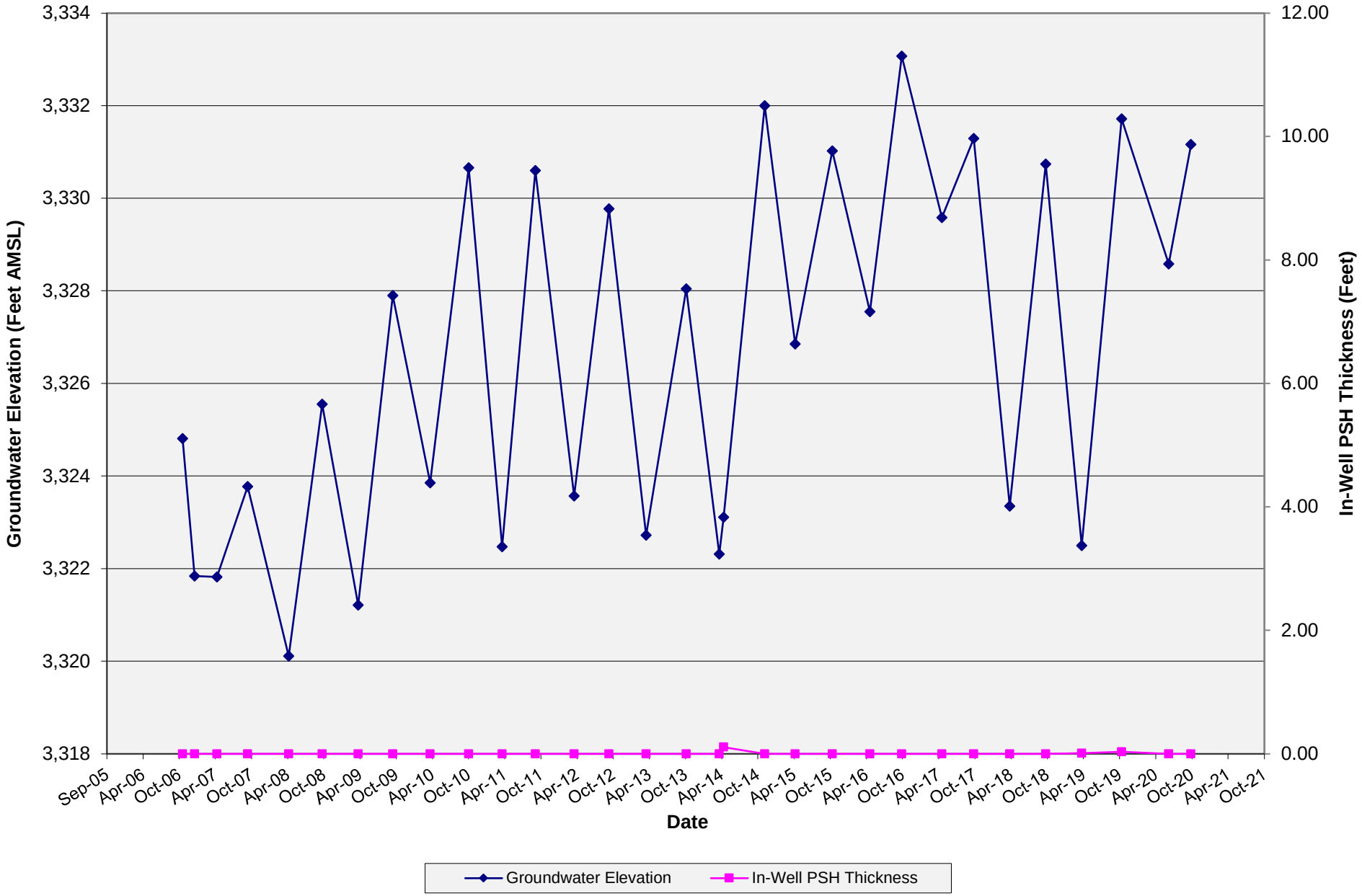


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KWB-11A: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

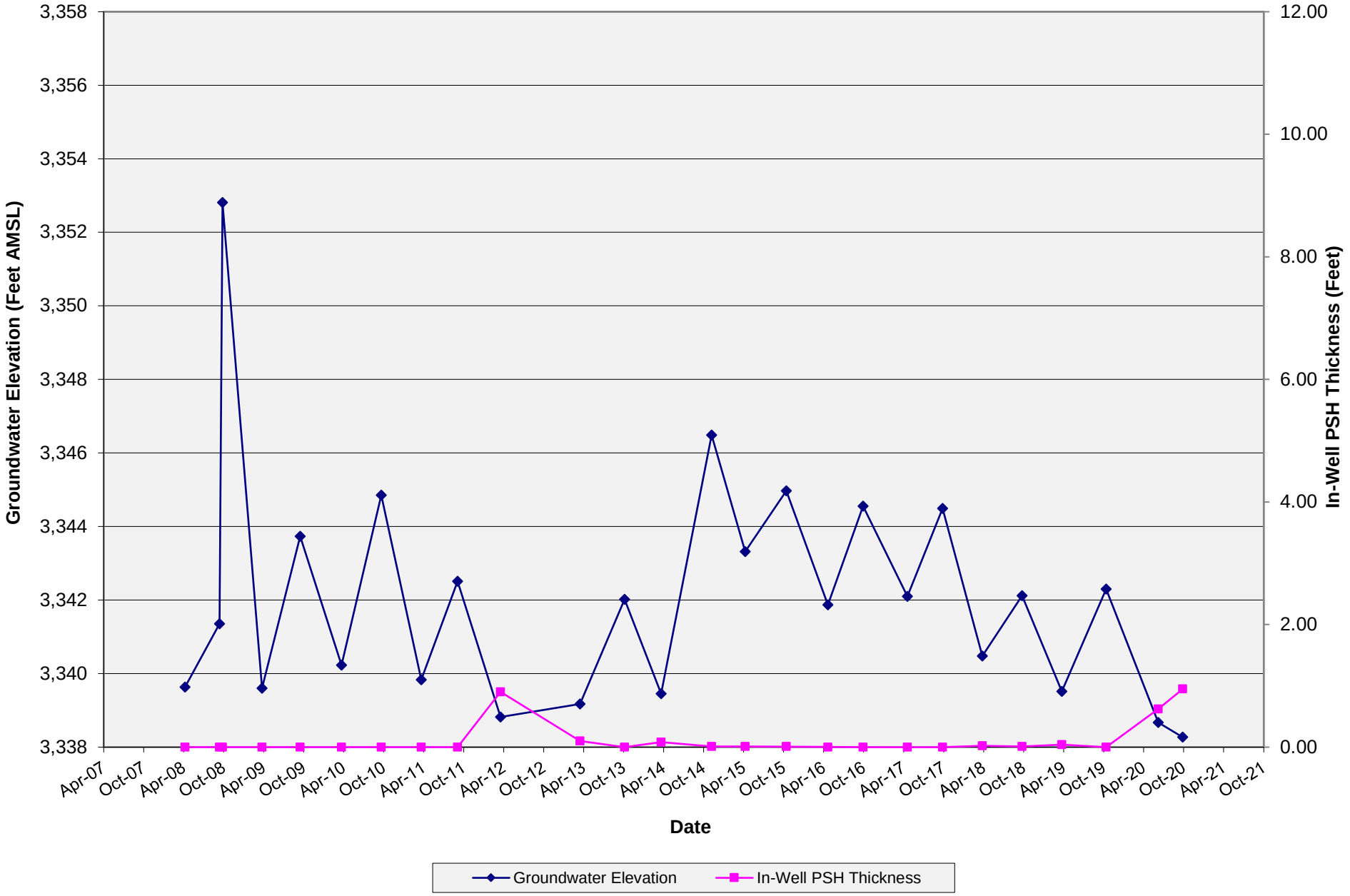


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MW-58: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

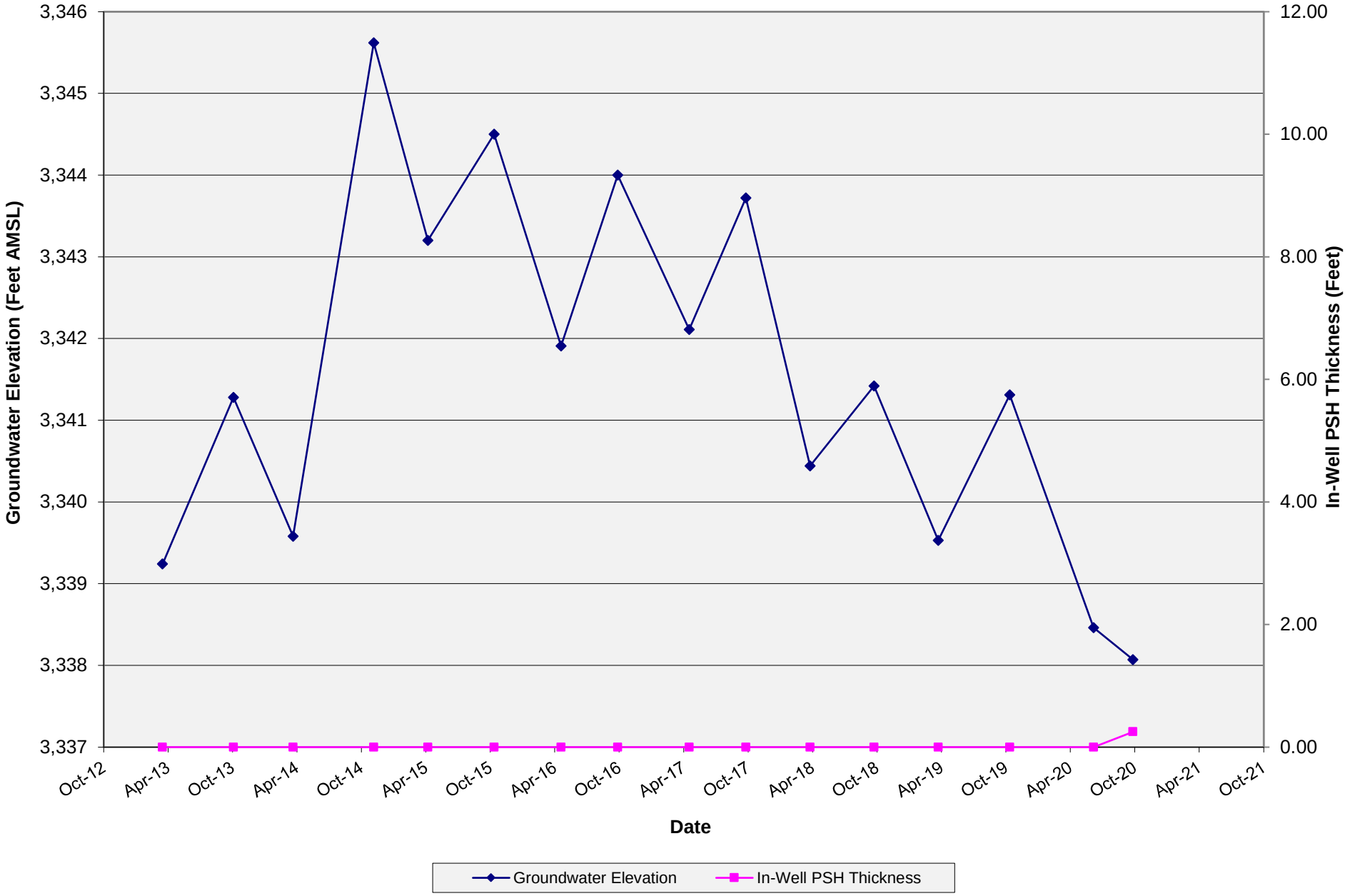


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MW-111: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

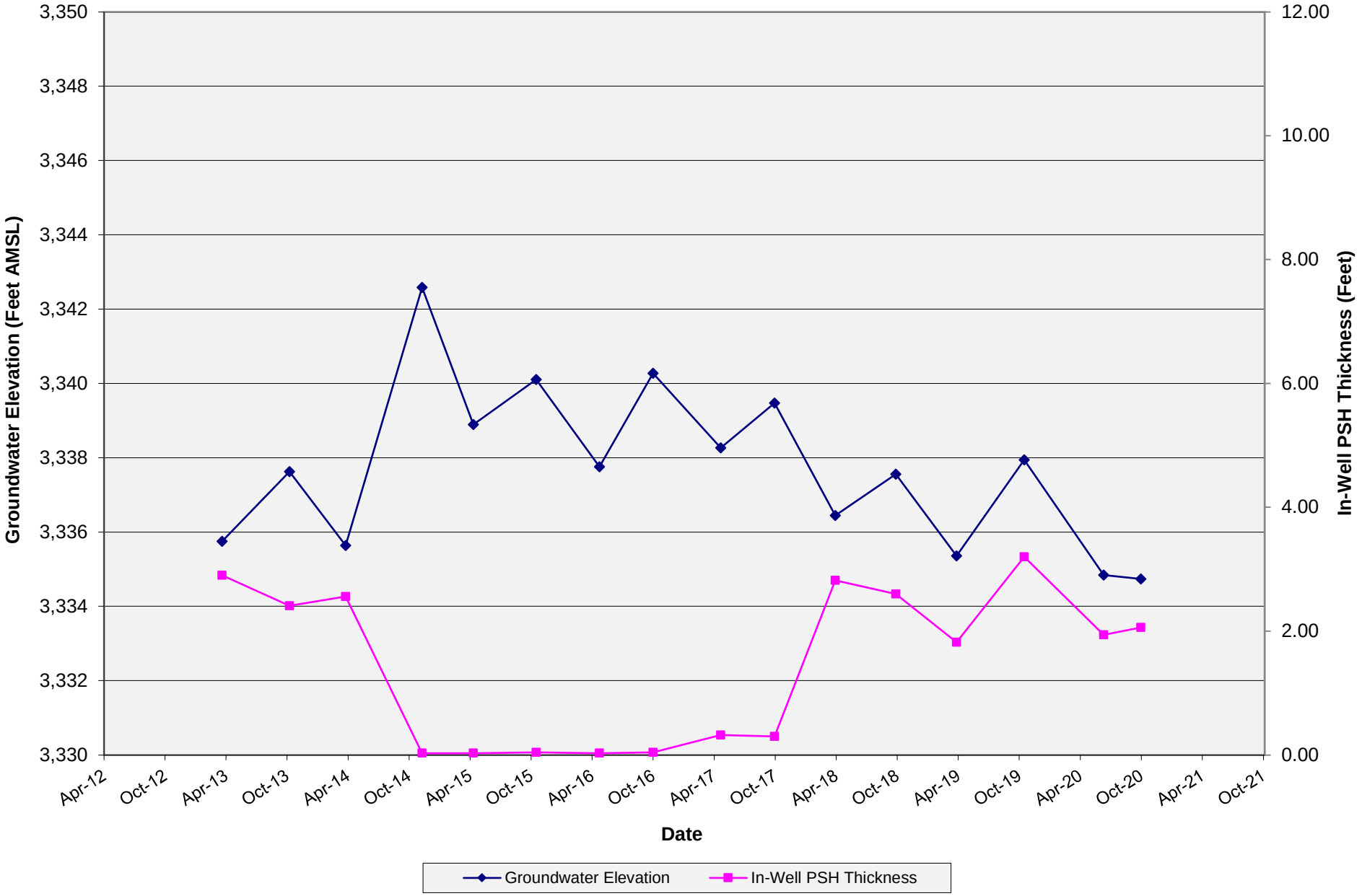


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MW-112: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

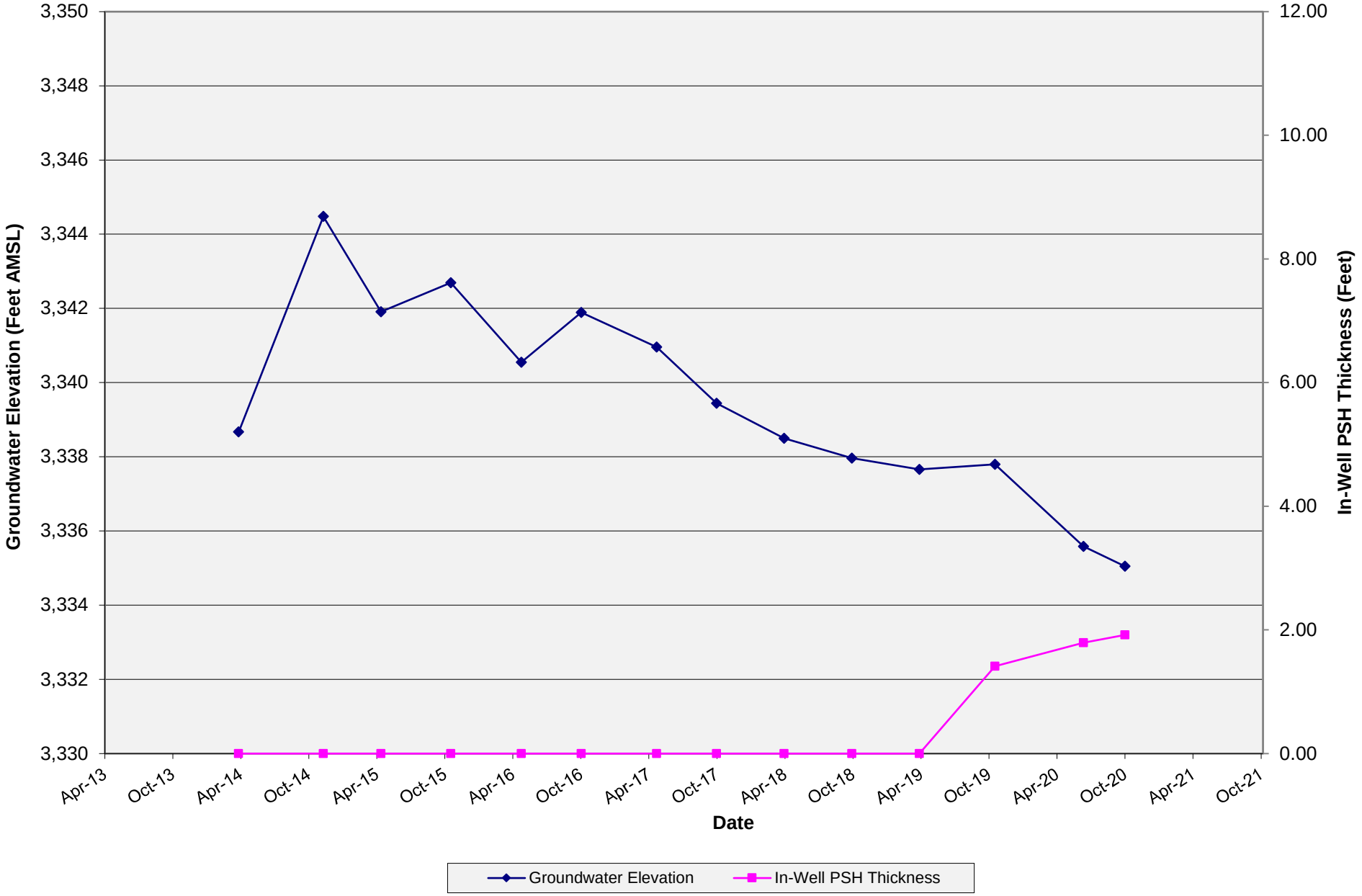


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MW-127: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

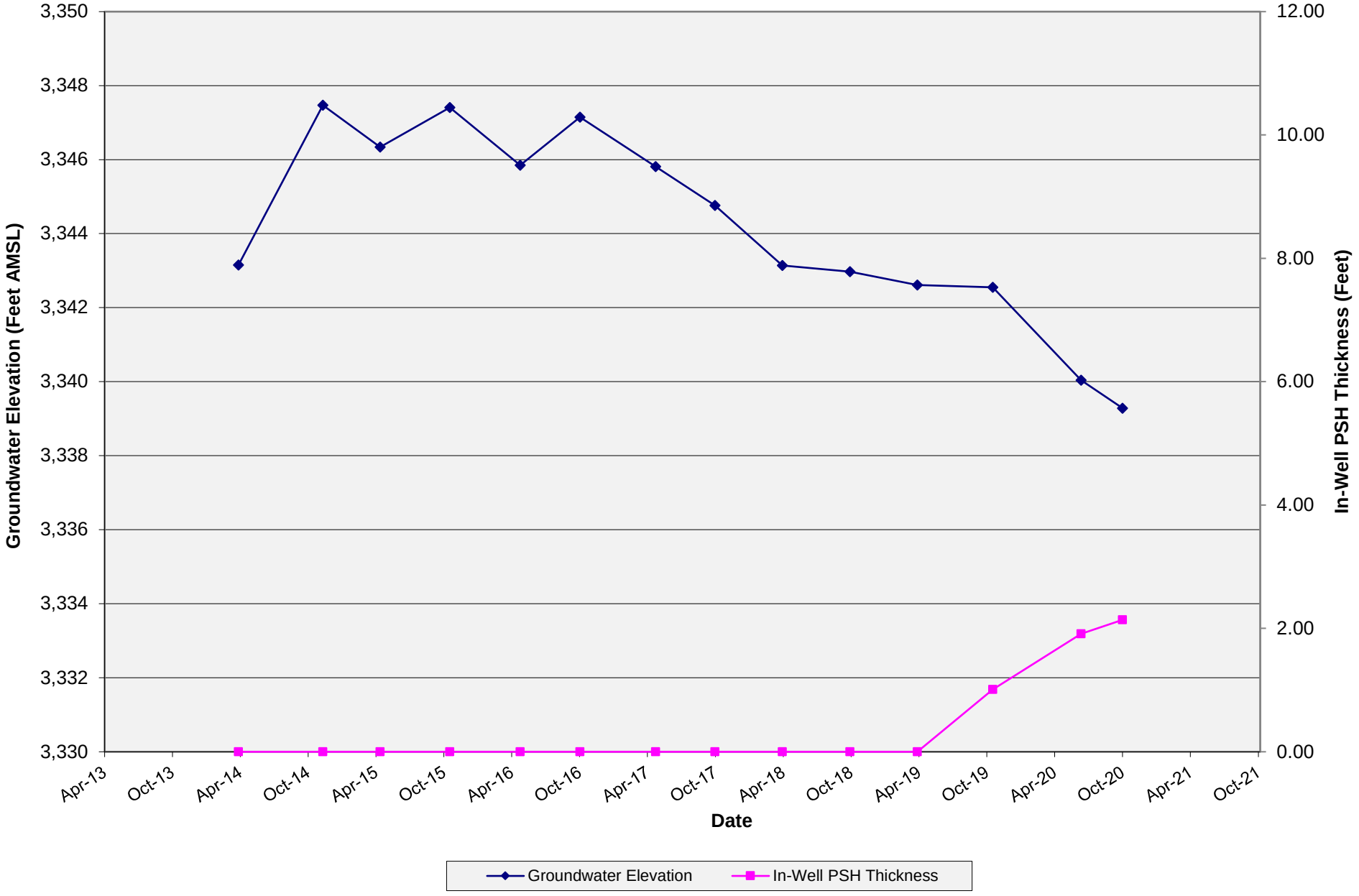


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MW-128: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

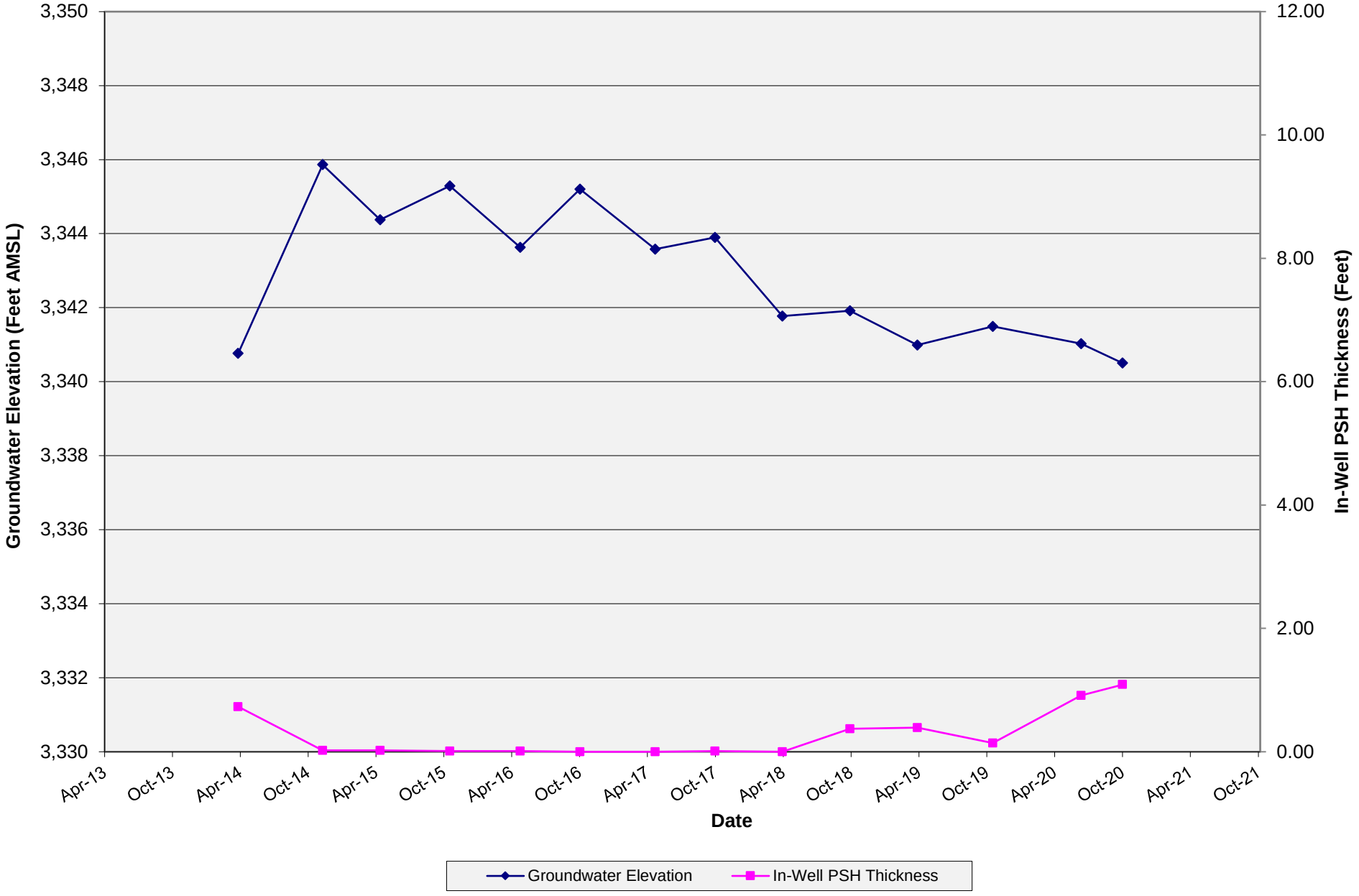


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MW-129: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

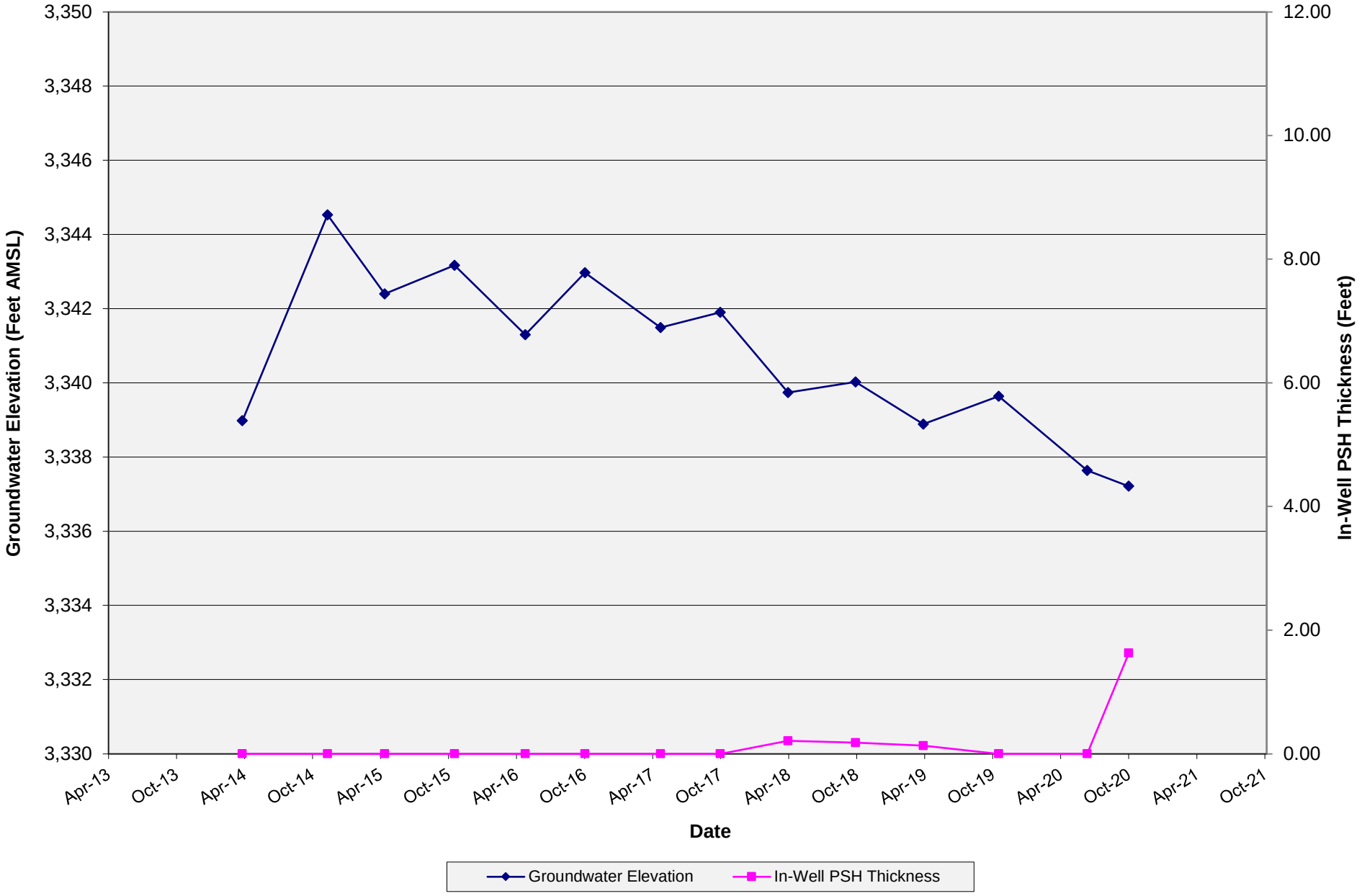


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MW-131: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

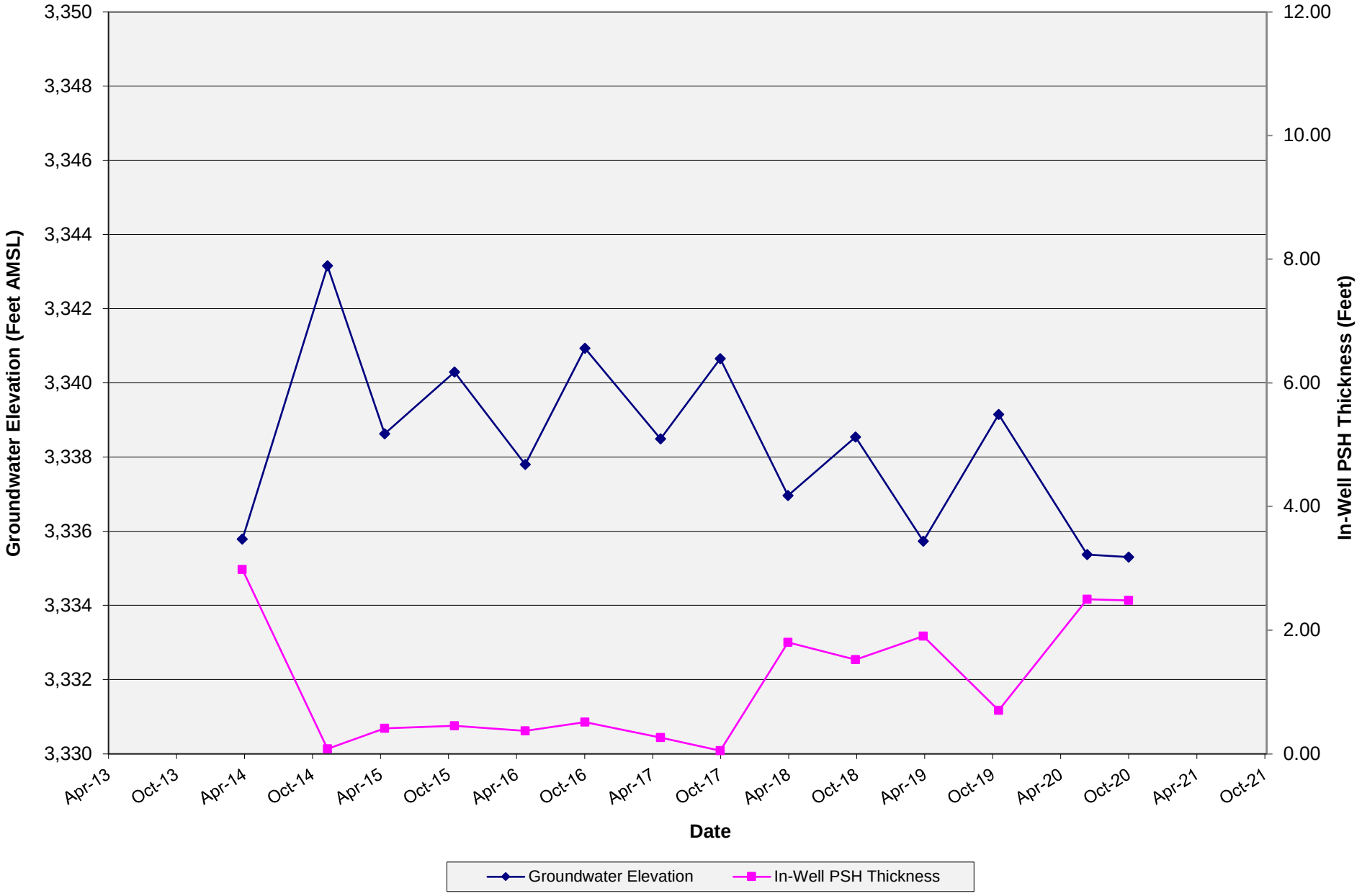


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MW-132: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

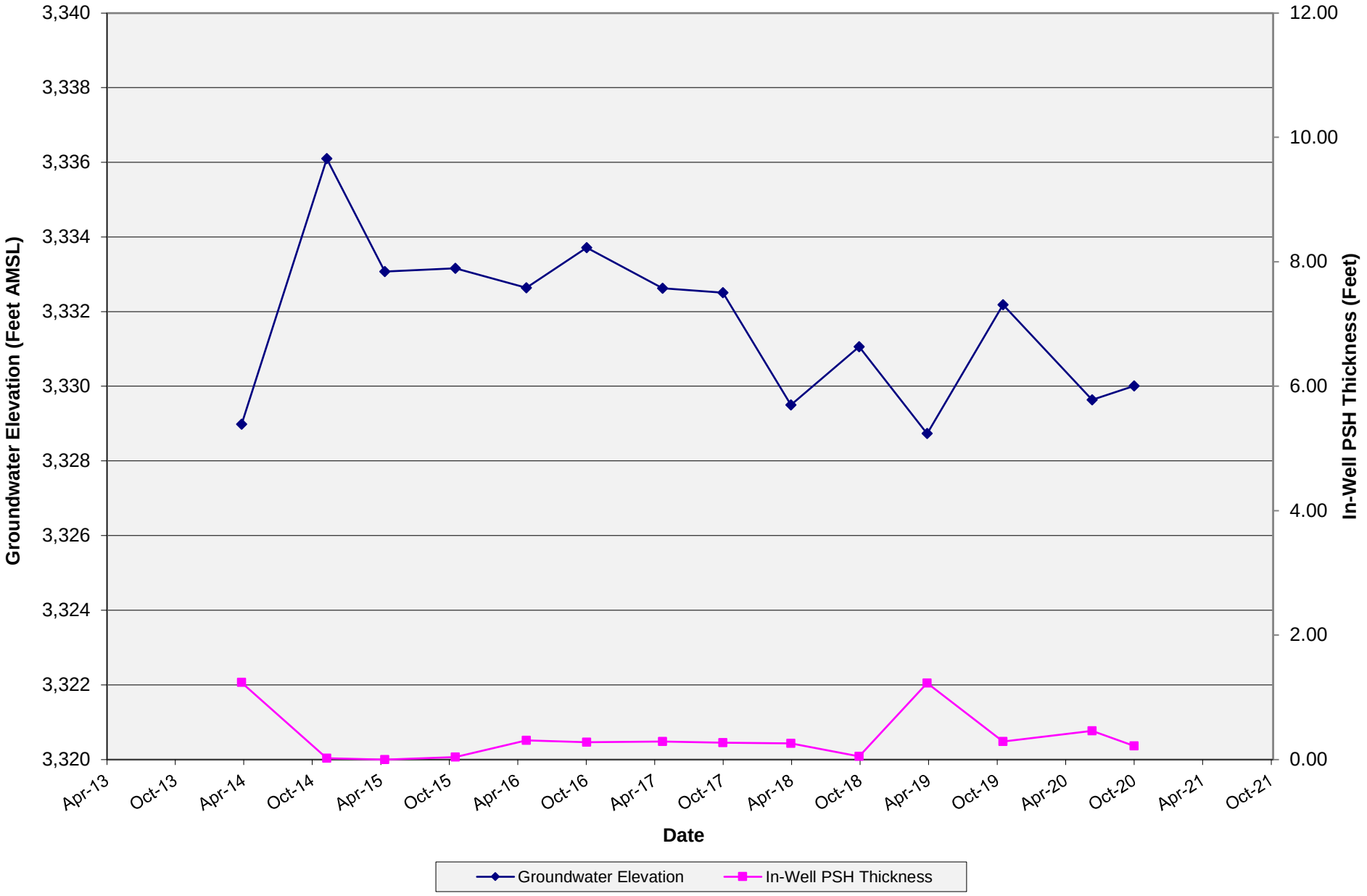


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MW-133: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

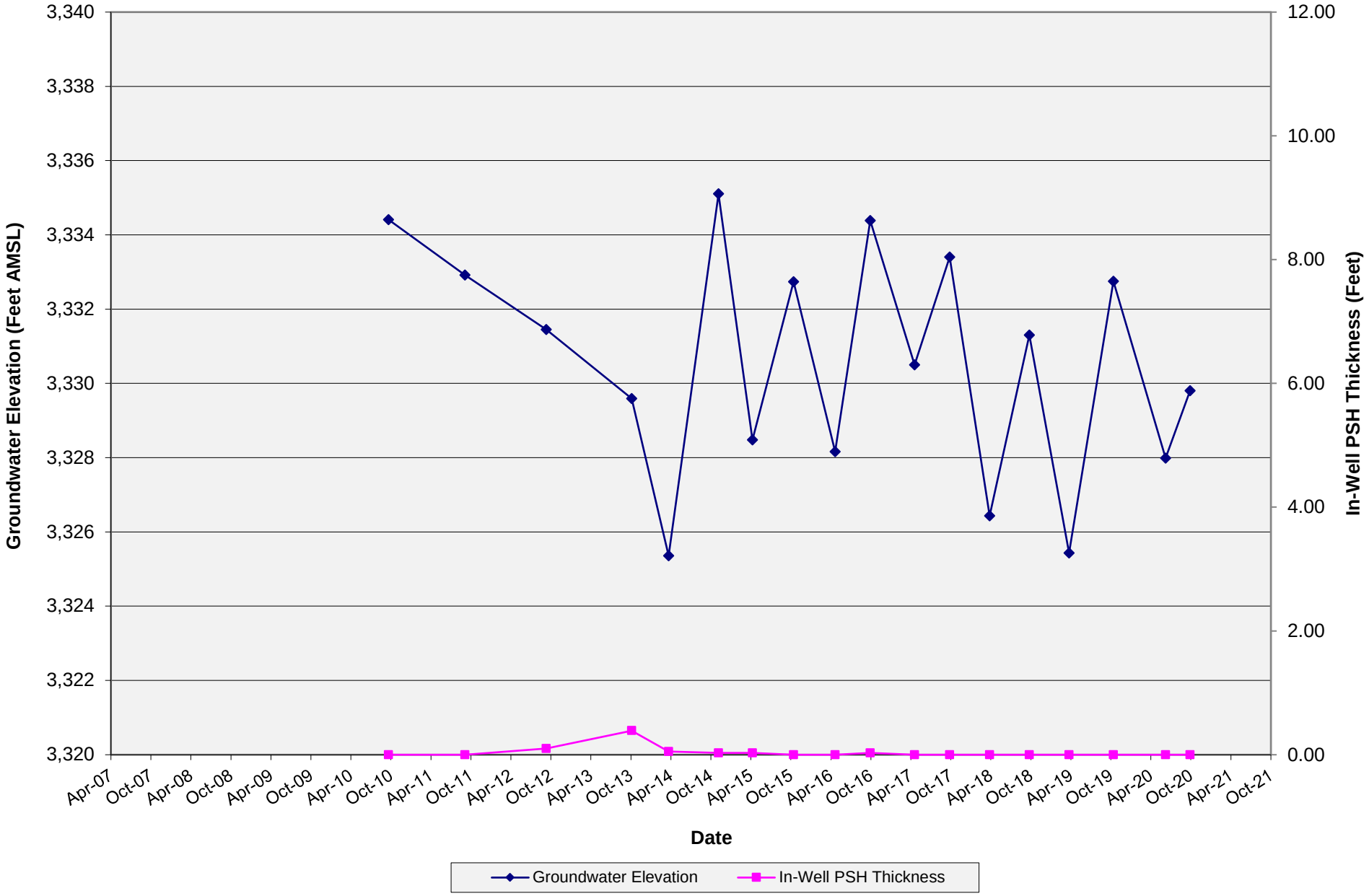


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RW-12 & RW-1R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

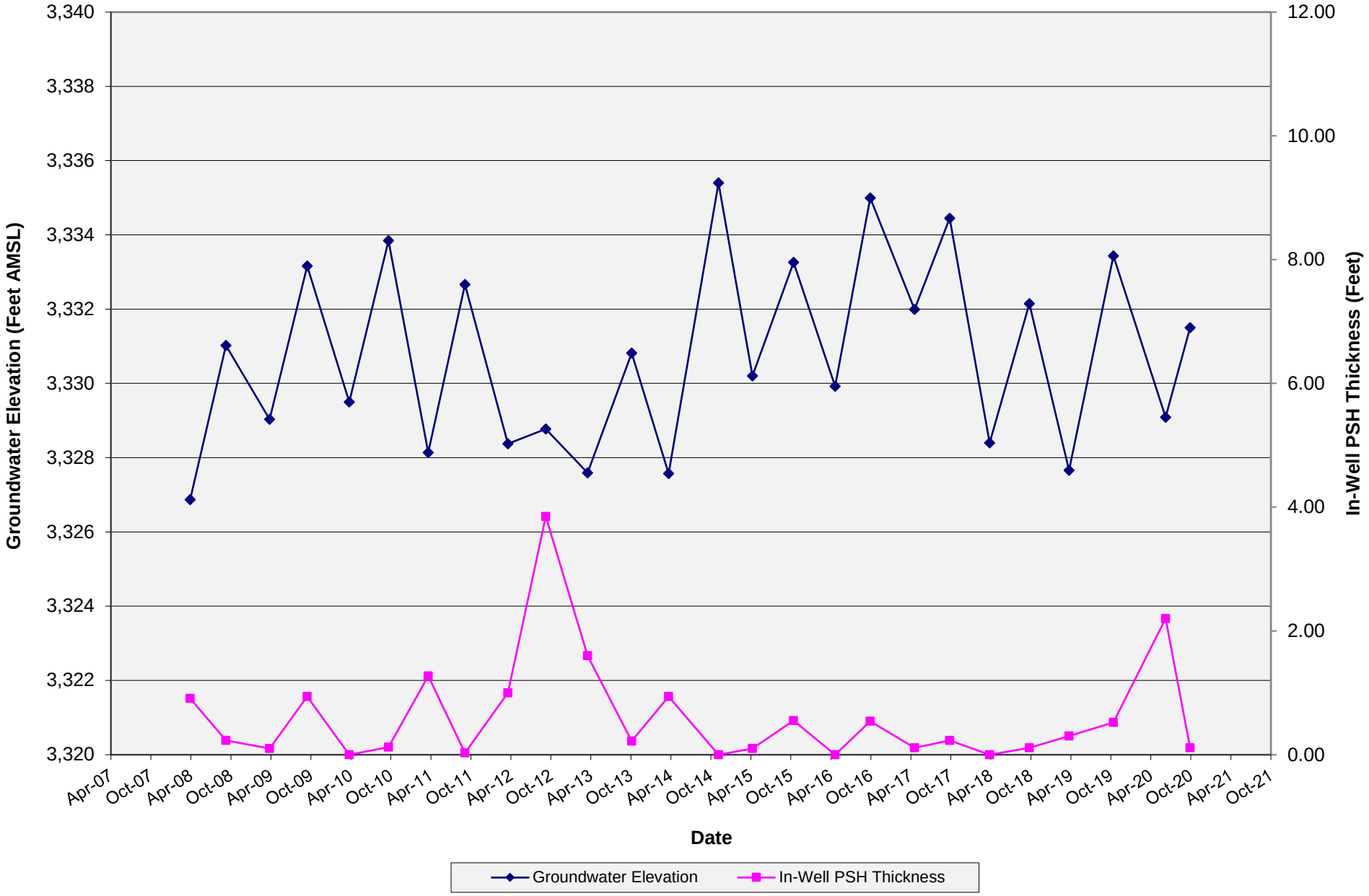


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RW-13 & RW-13R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

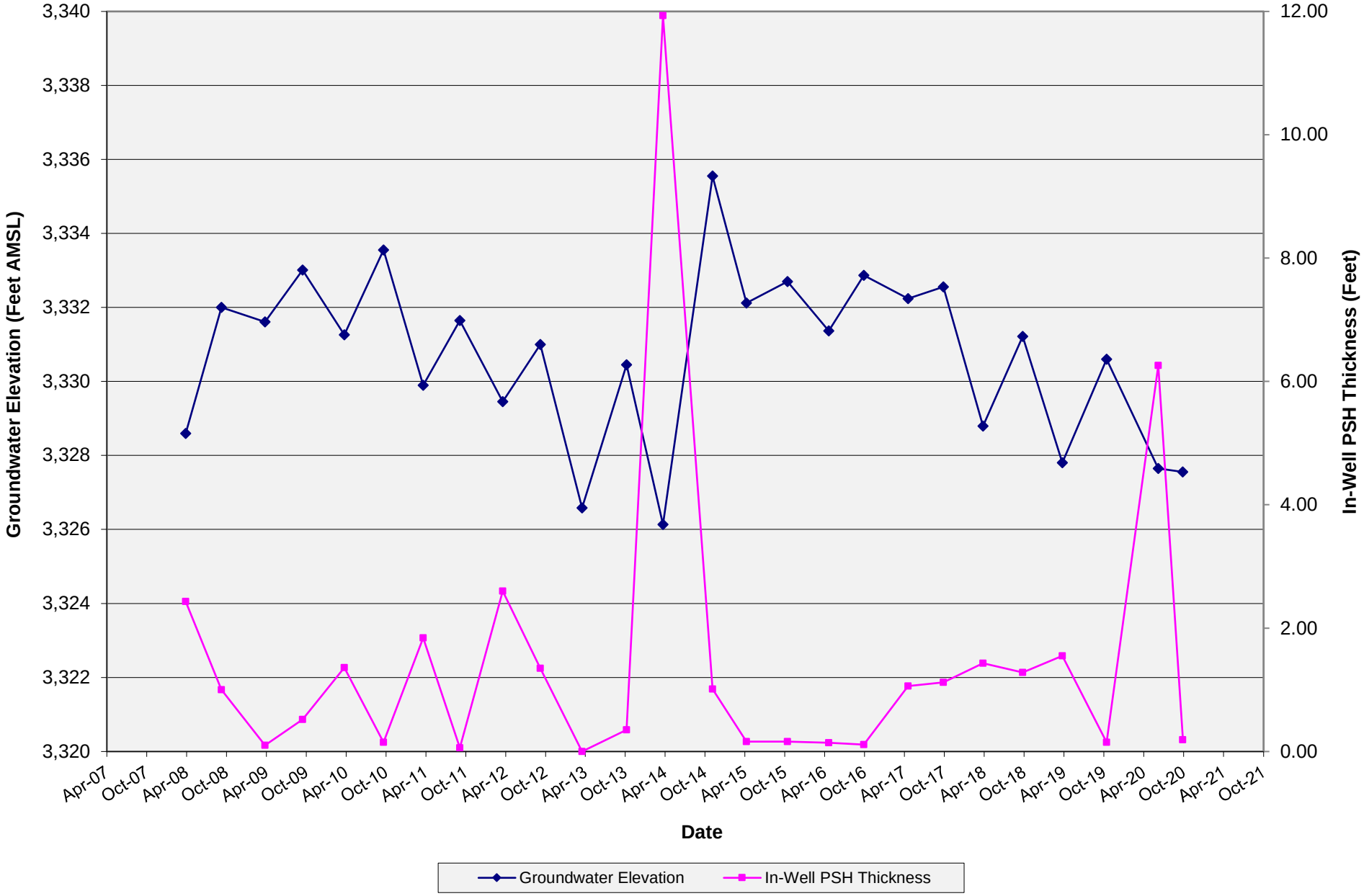


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RW-14 & RW-14R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

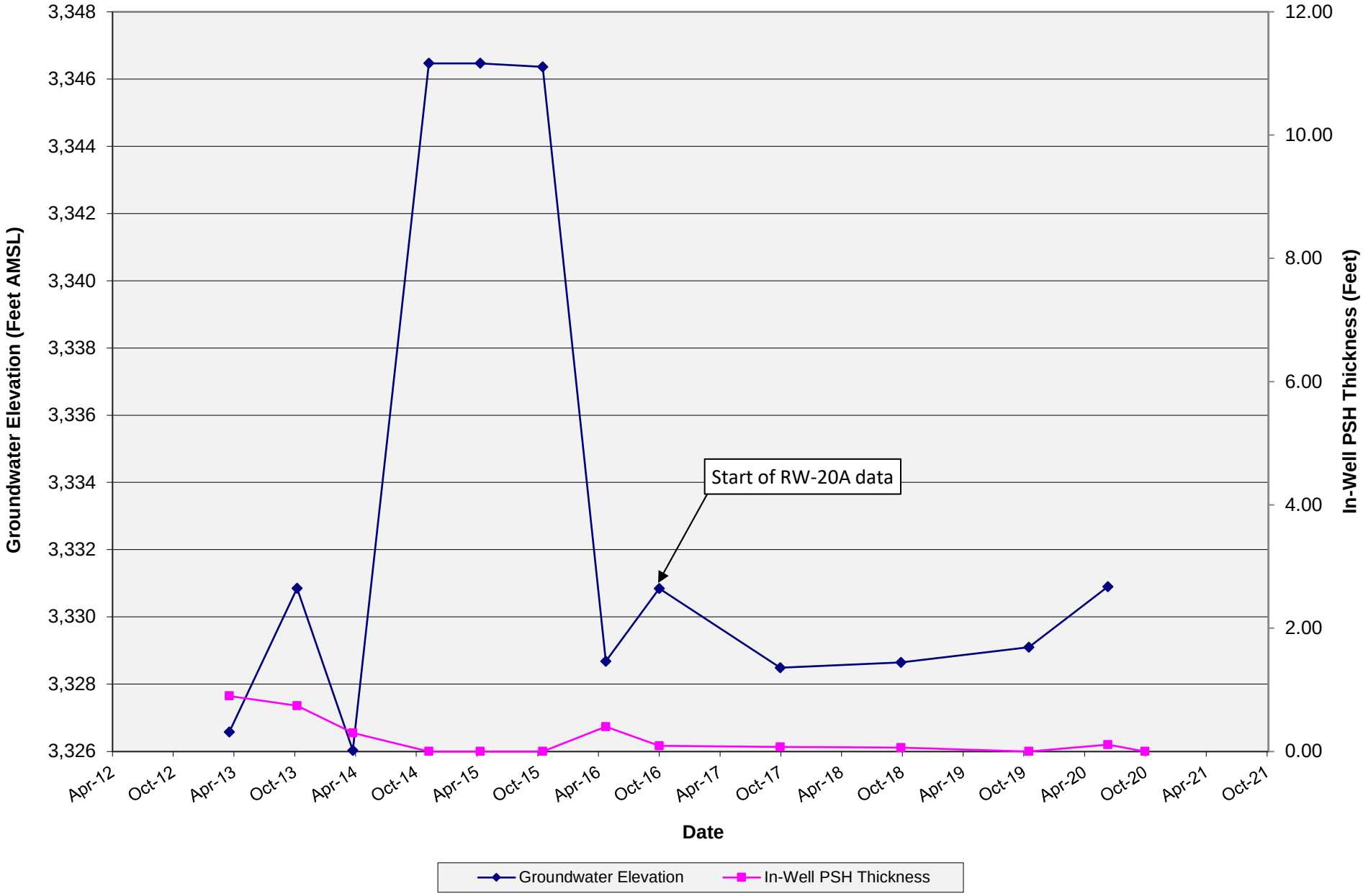


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Received by OCD: 6/23/2021 4:05:29 PM

RW-20 & RW-20A: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

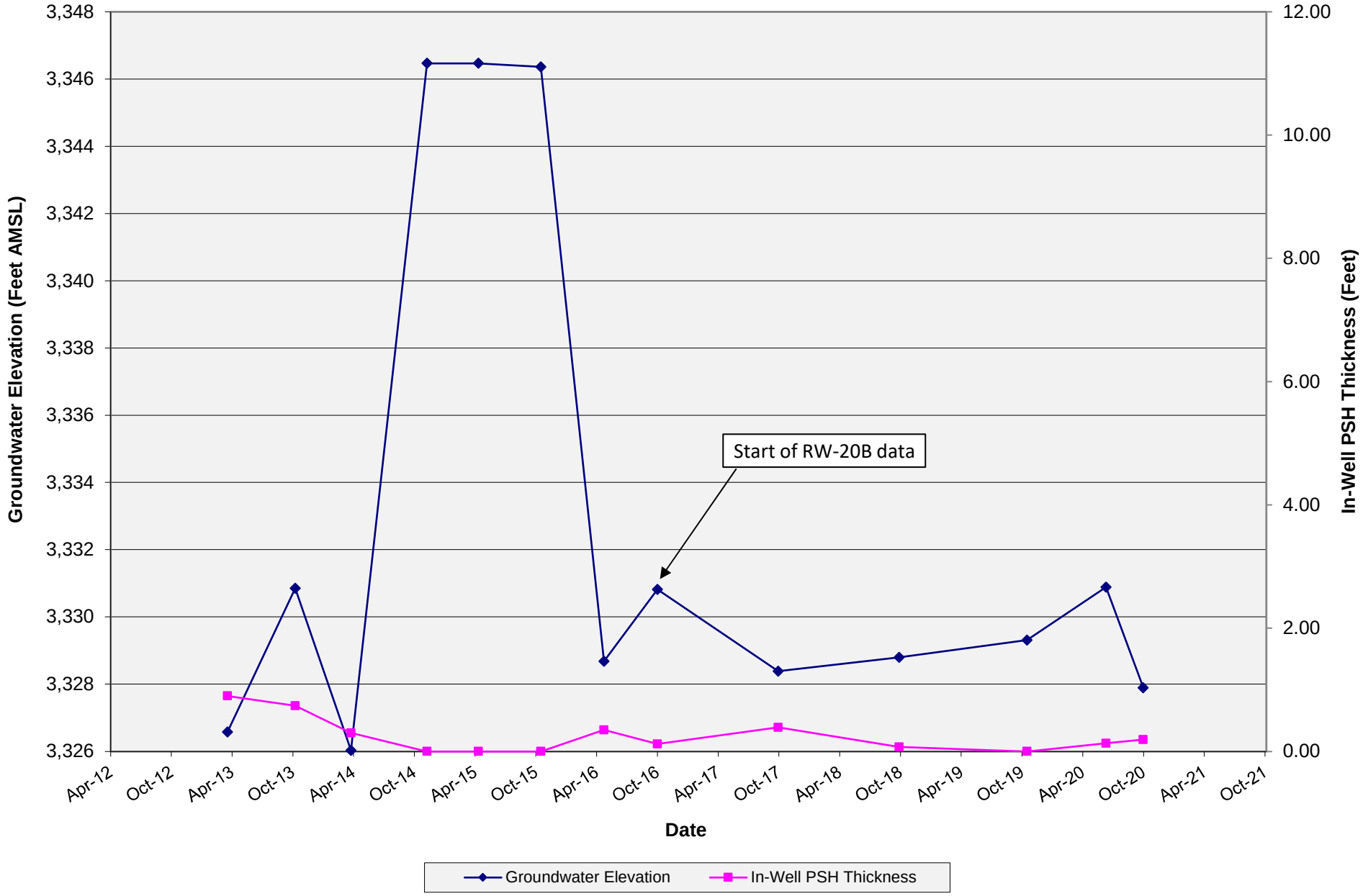


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Received by OCD: 6/23/2021 4:05:29 PM

RW-20 & RW-20B: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

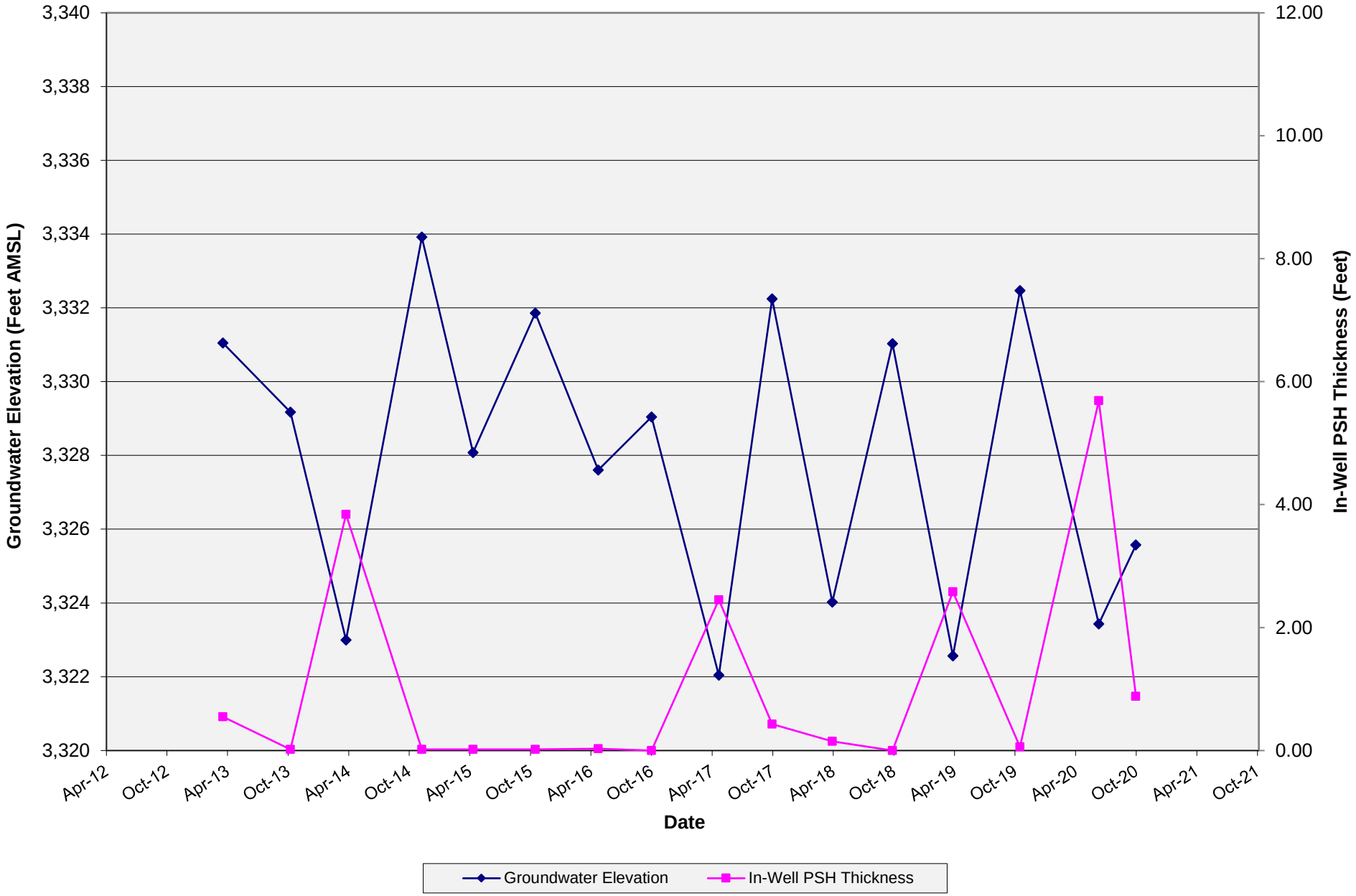


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RW-22: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Field East of Refinery

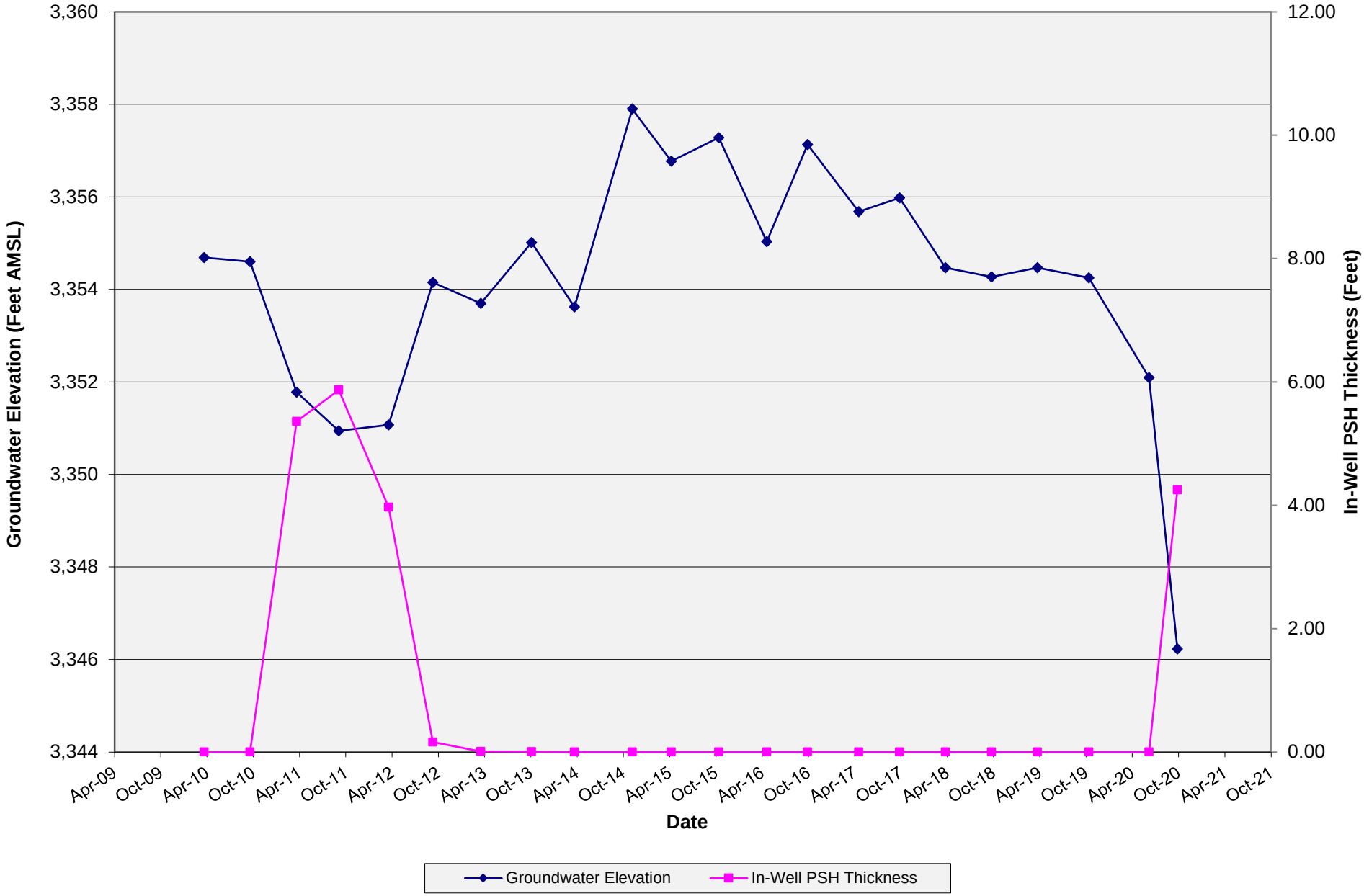


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NCL-34A: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Colony Landfarm

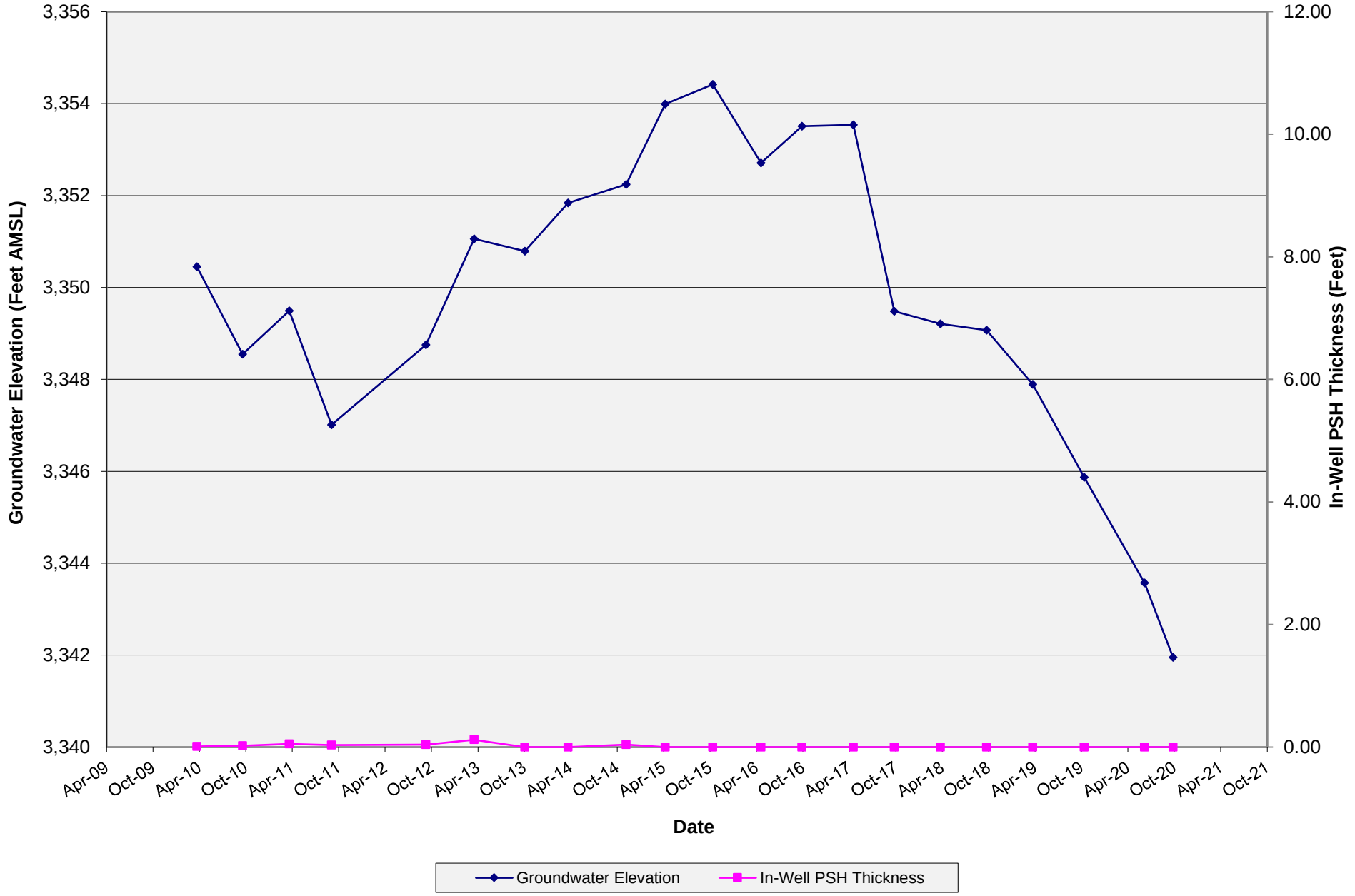


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MW-39: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

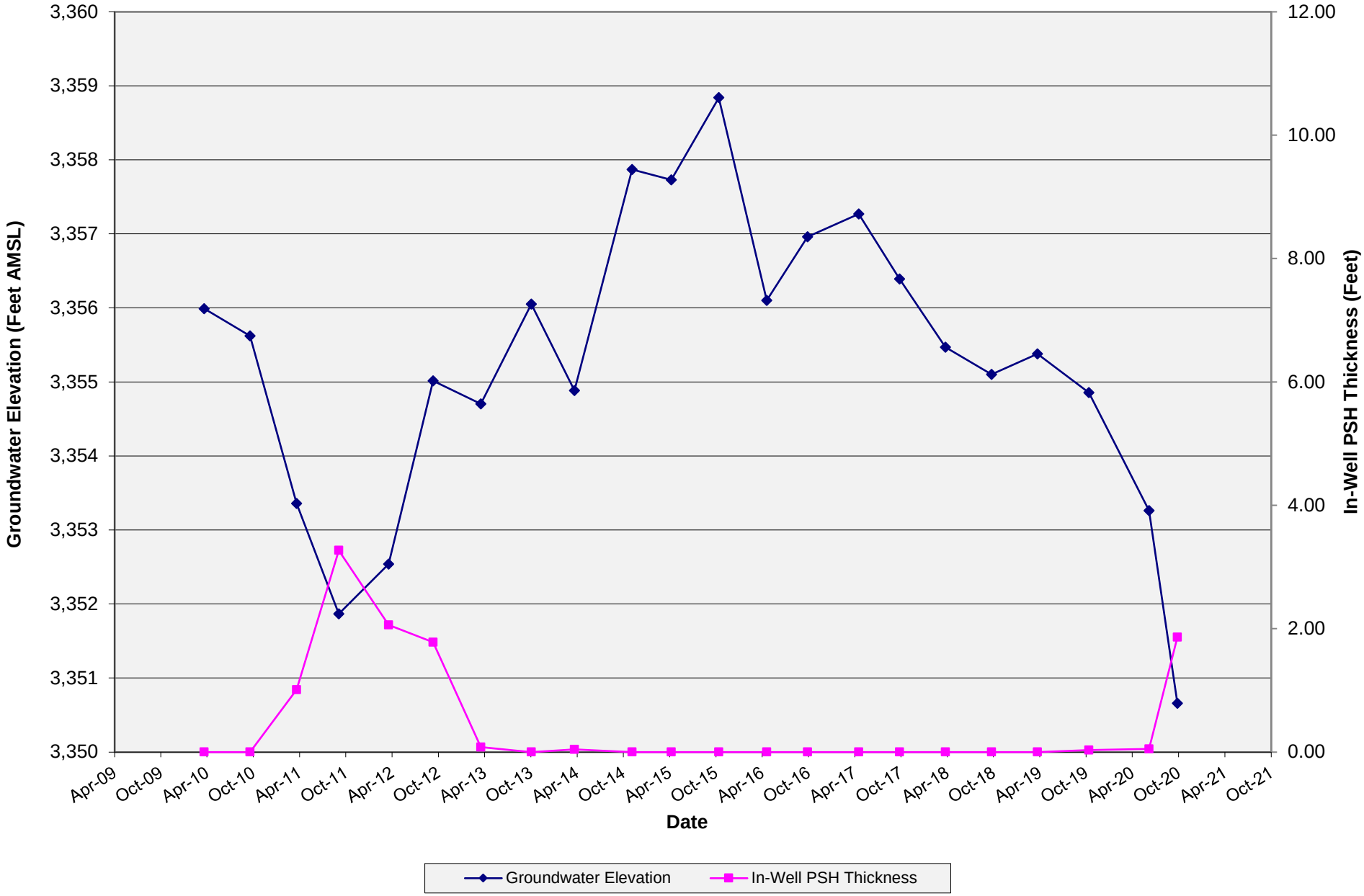


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MW-67: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

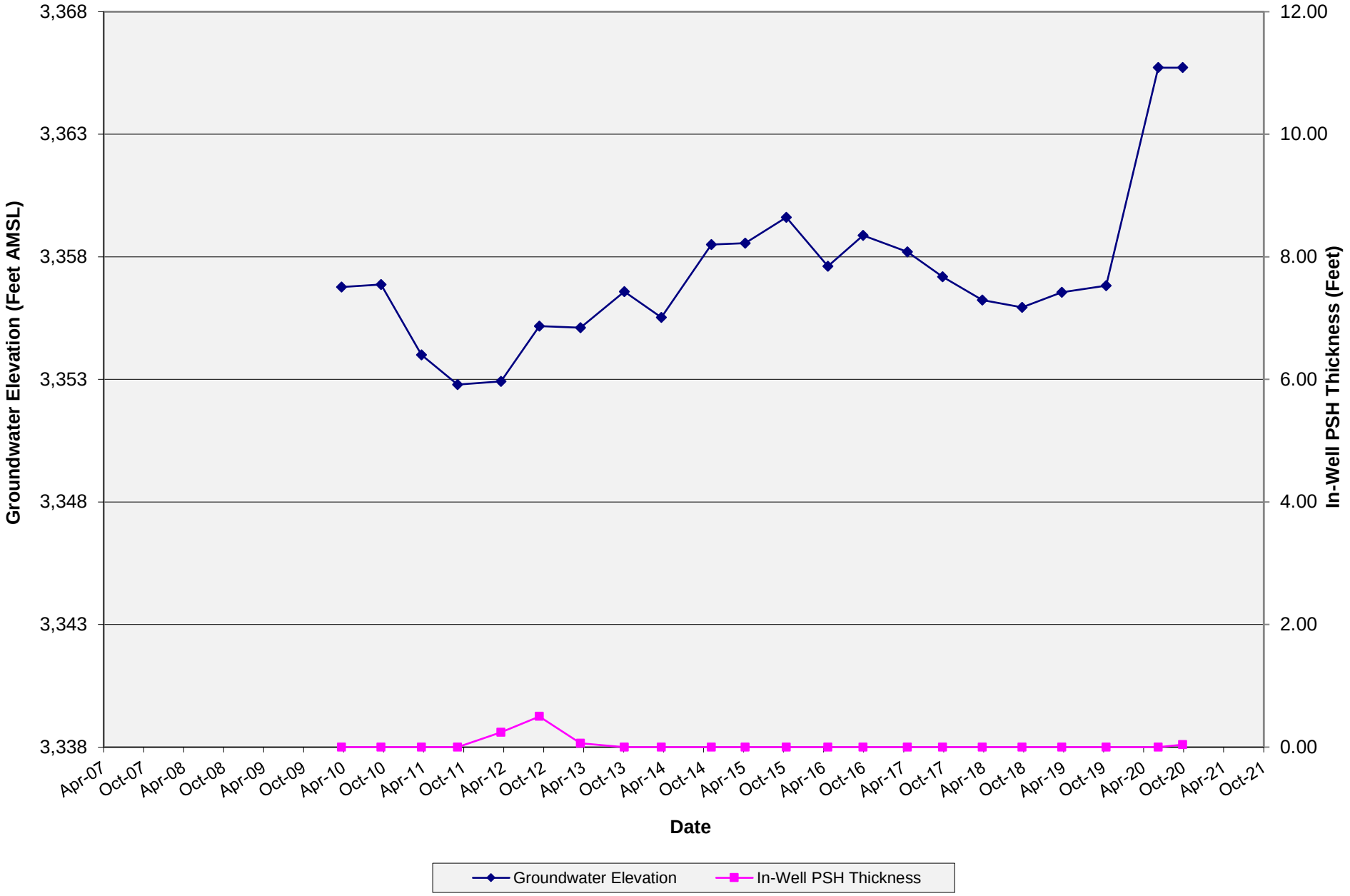


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Received by OCD: 6/23/2021 4:05:29 PM

MW-91: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

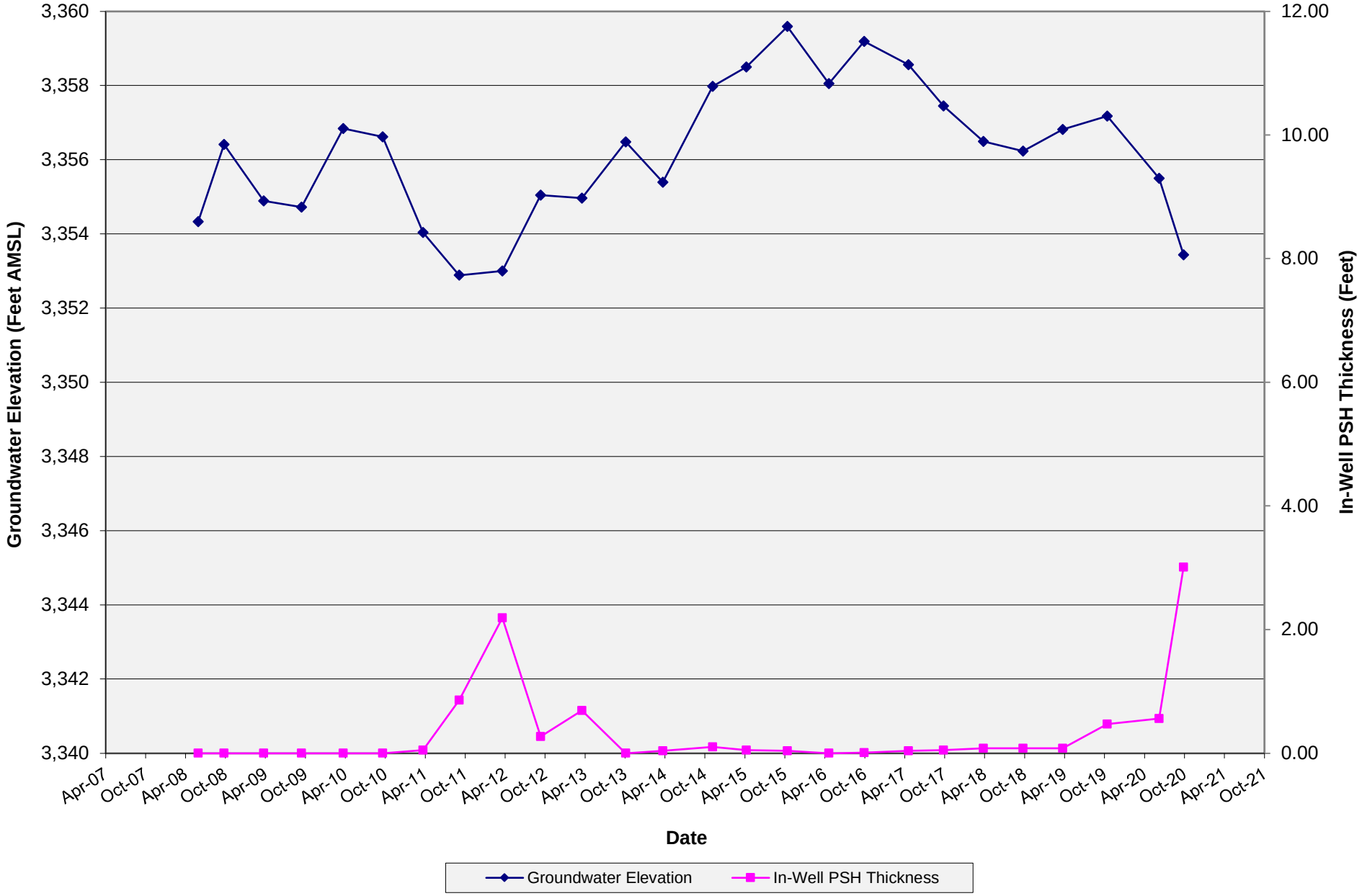


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Received by OCD: 6/23/2021 4:05:29 PM

MW-92: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

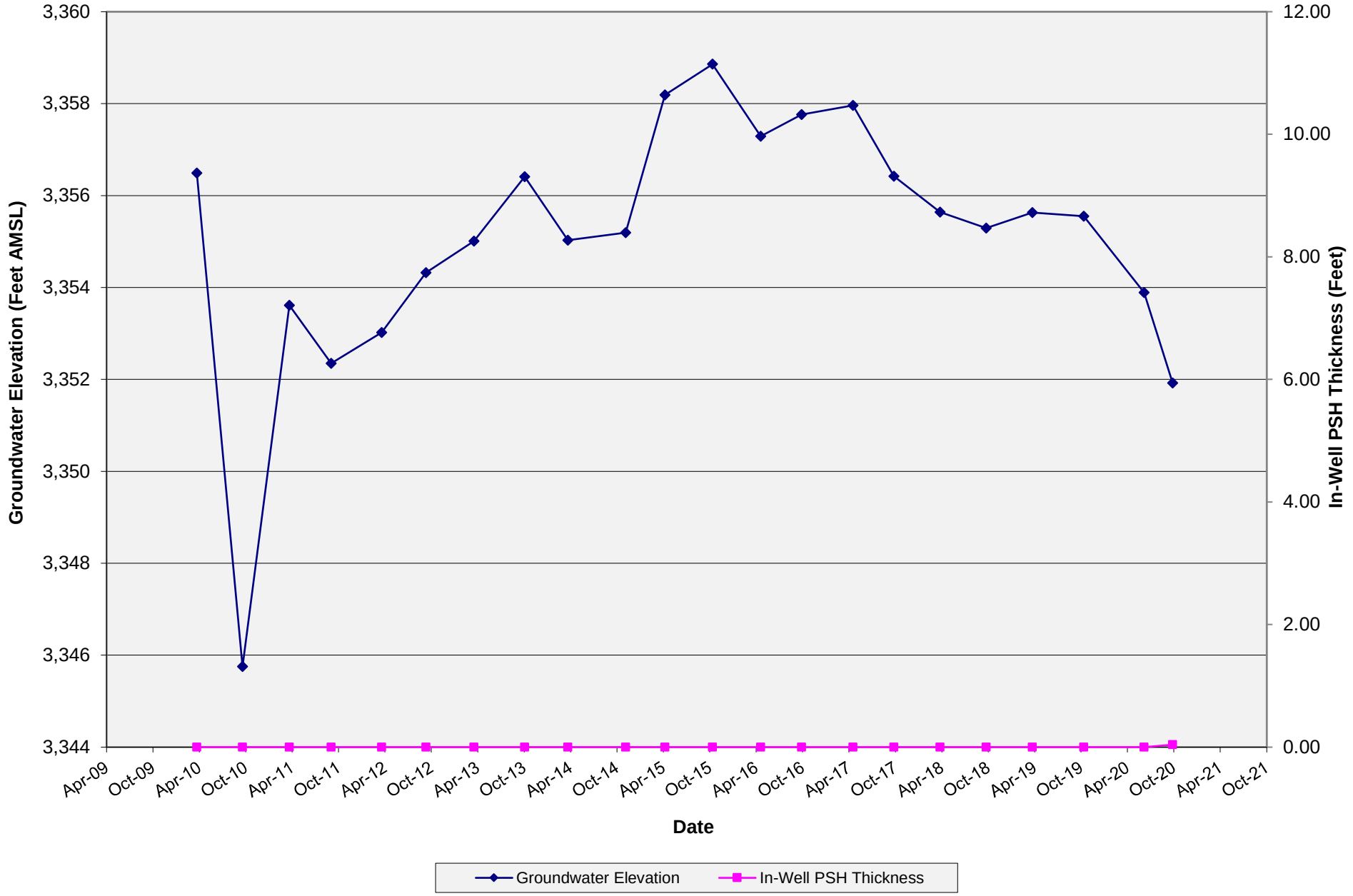


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Received by OCD: 6/23/2021 4:05:29 PM

MW-93: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

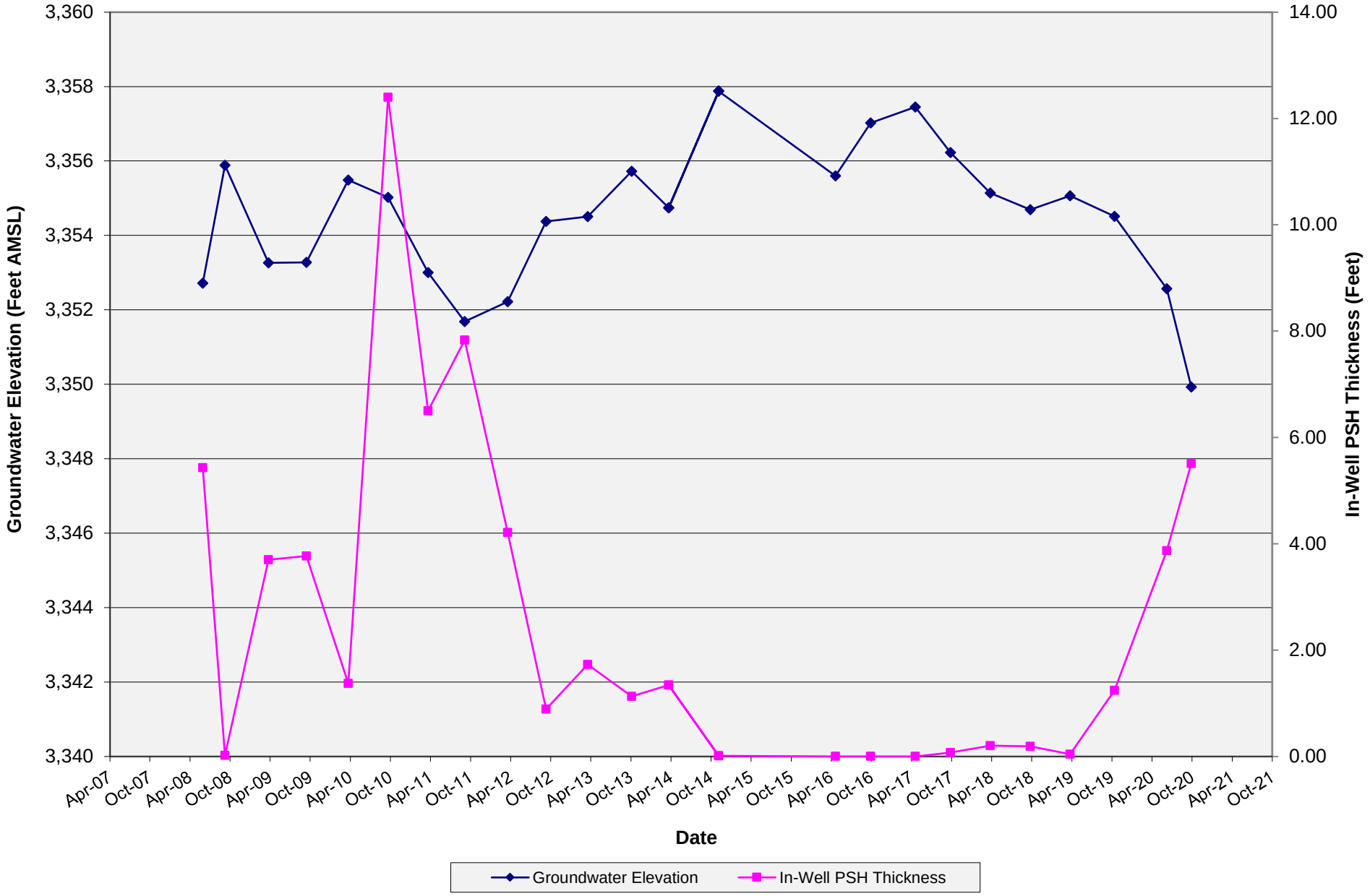


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Received by OCD: 6/23/2021 4:05:29 PM

MW-94: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

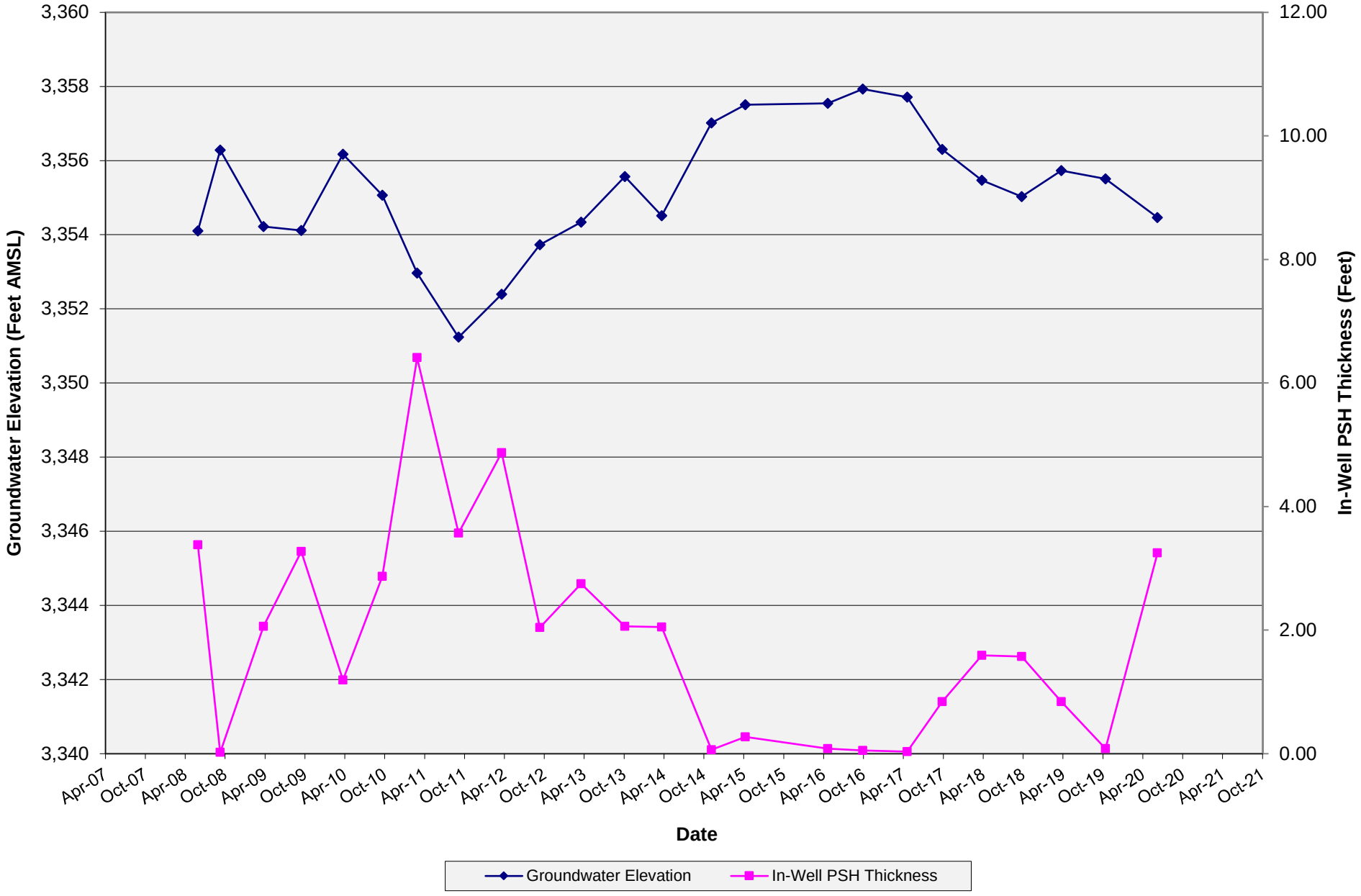


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Received by OCD: 6/23/2021 4:05:29 PM

MW-97: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

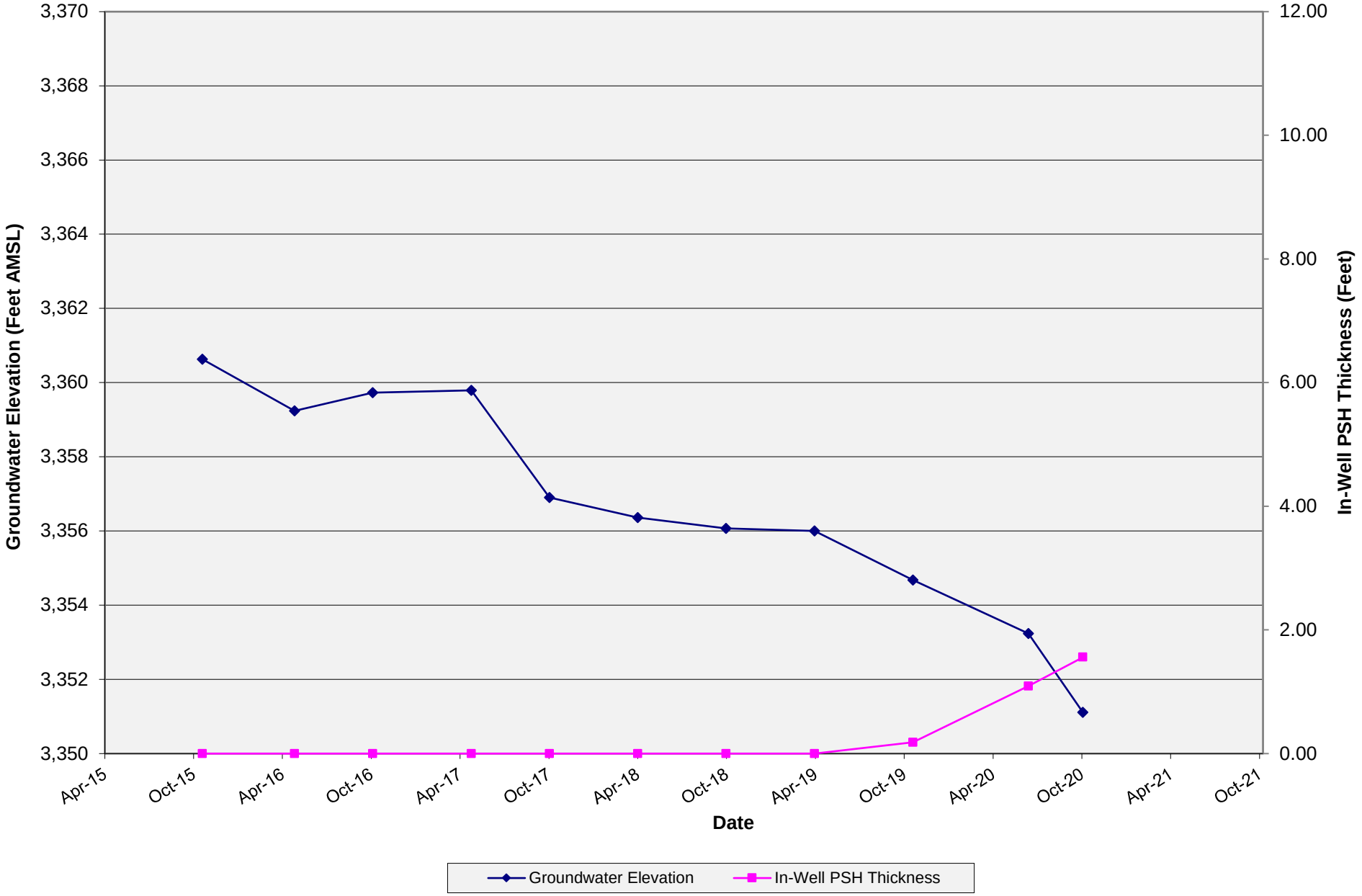


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MW-137: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

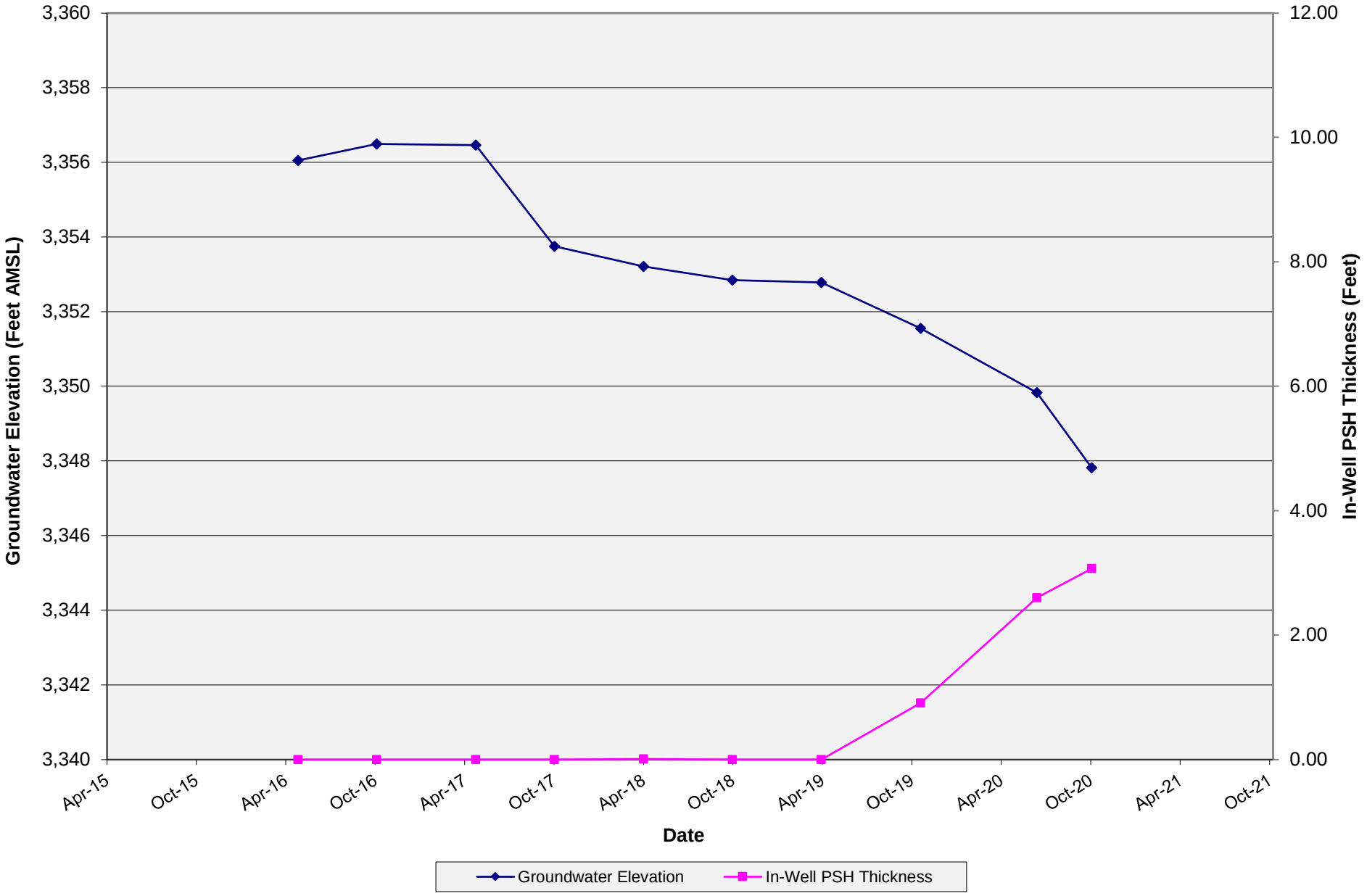


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MW-138: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

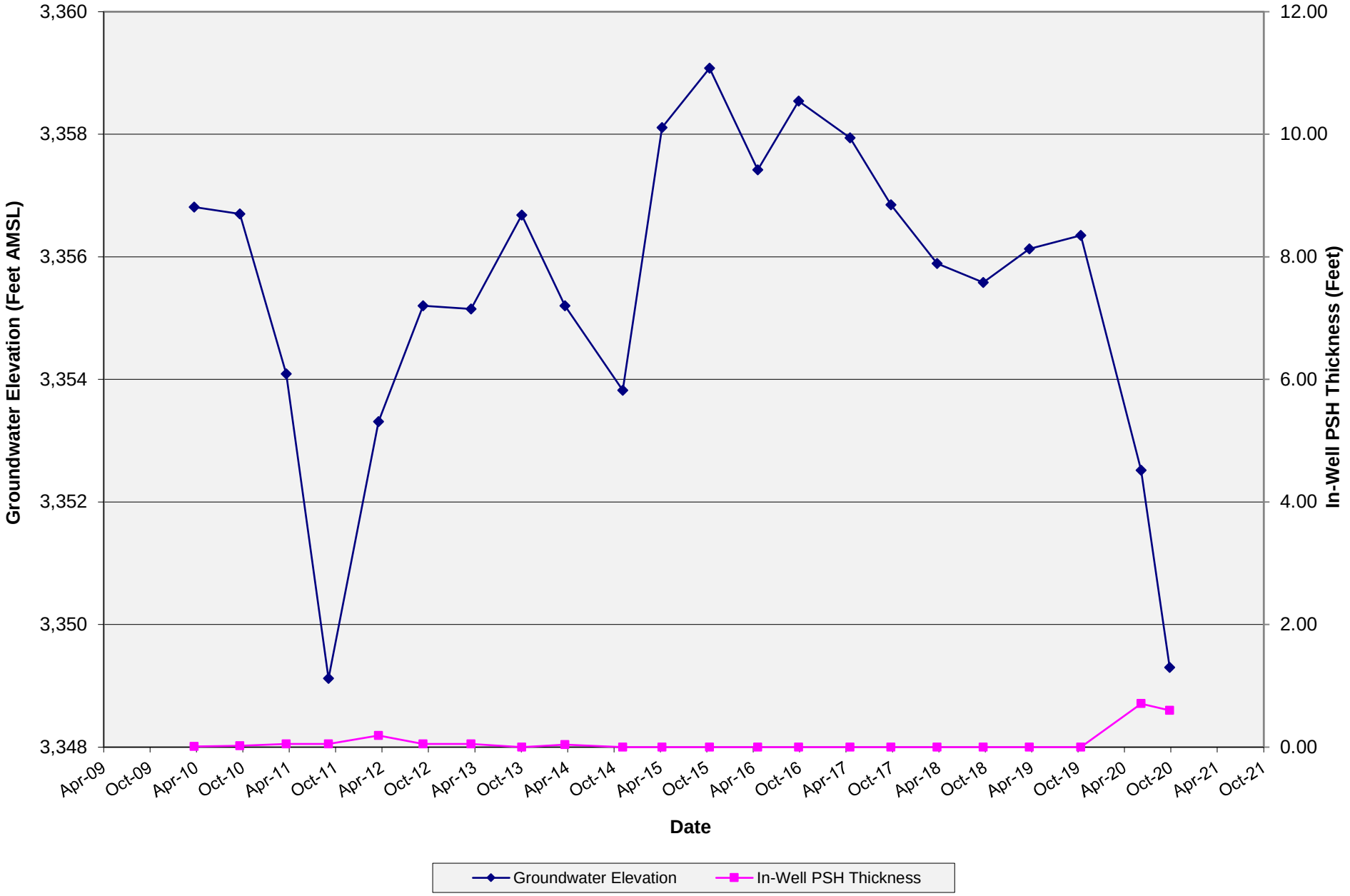


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Received by OCD: 6/23/2021 4:05:29 PM

RW-1 & RW-1R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

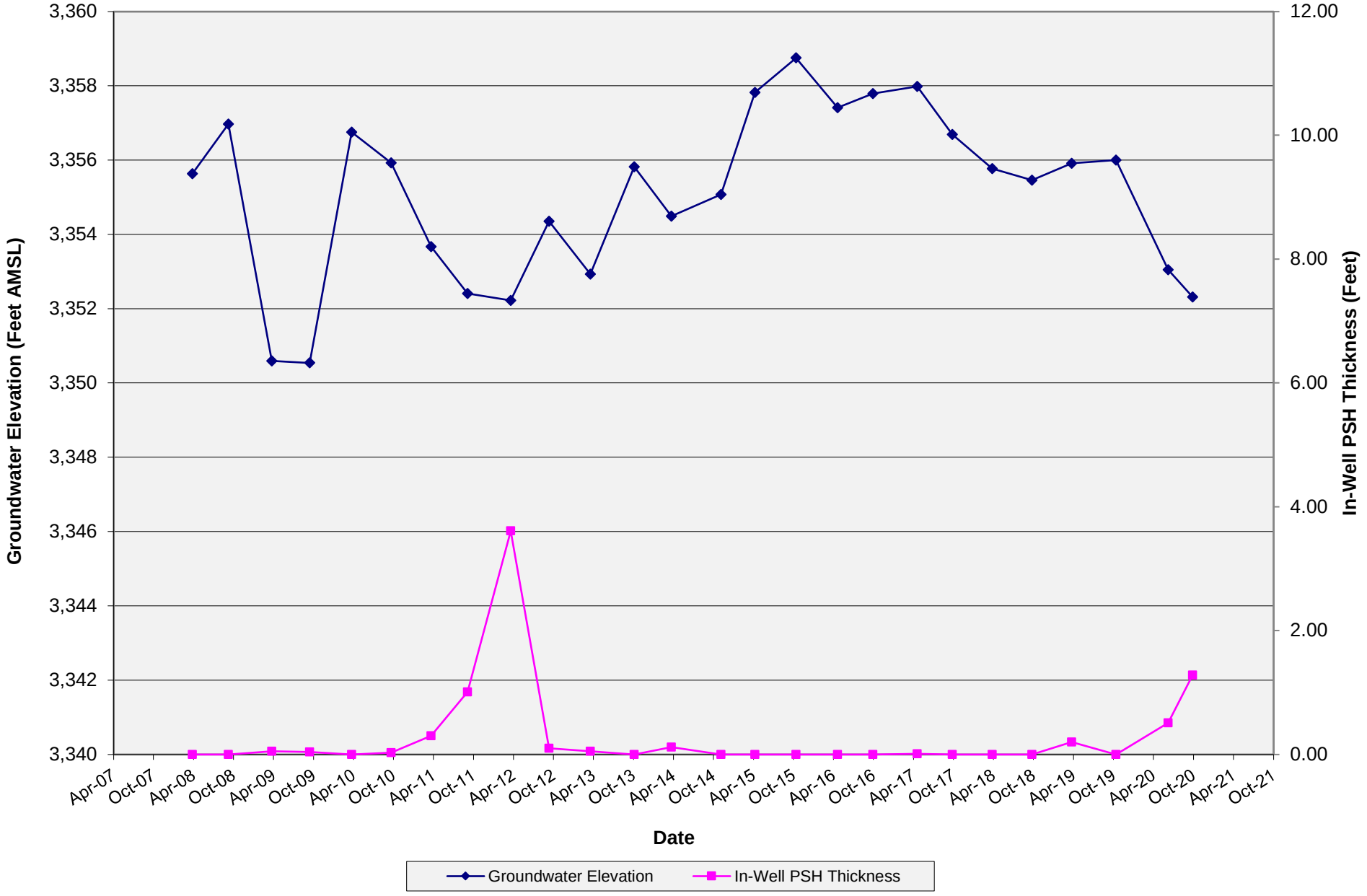


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RW-2: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

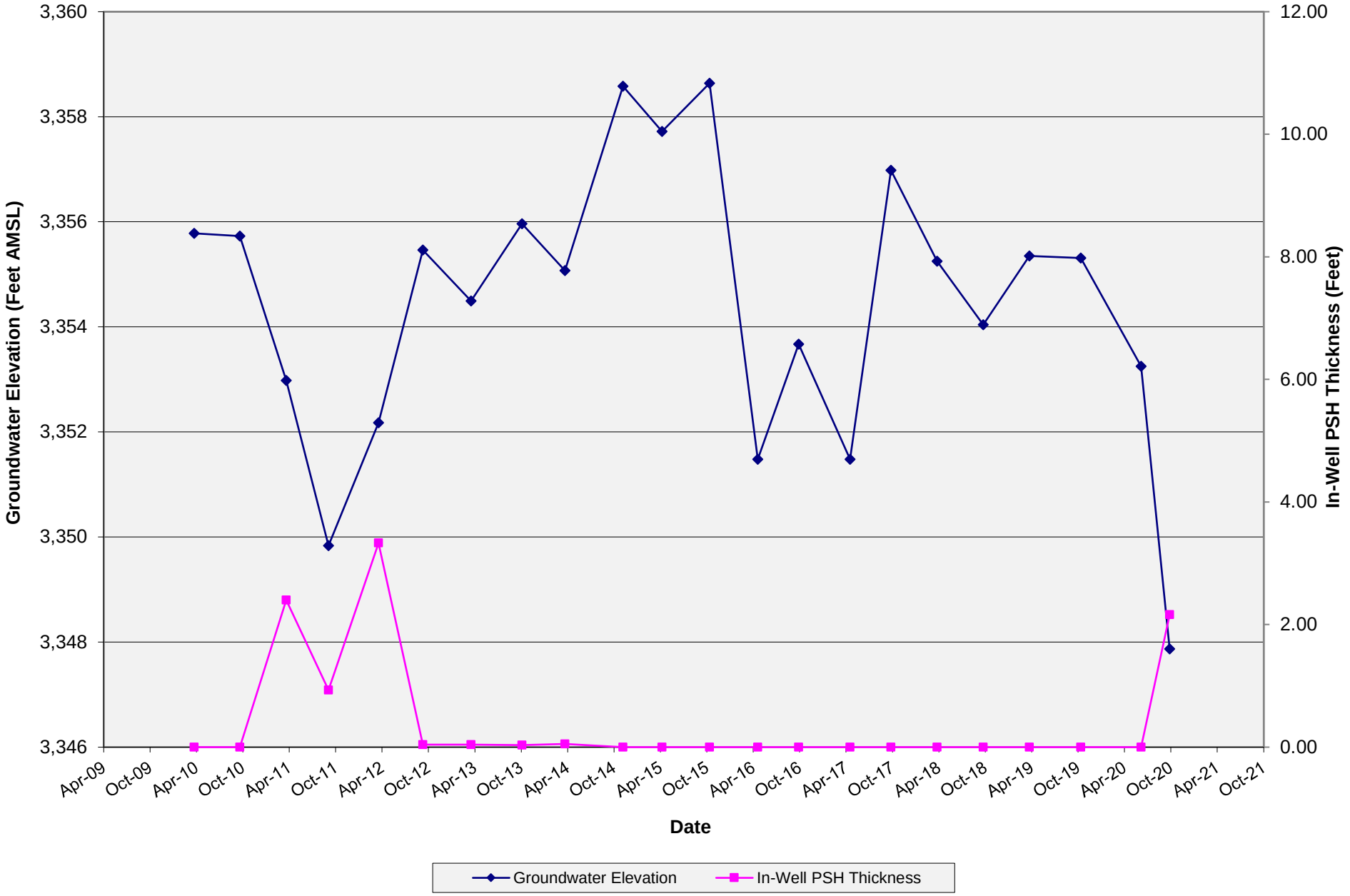


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RW-7 & RW-7R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

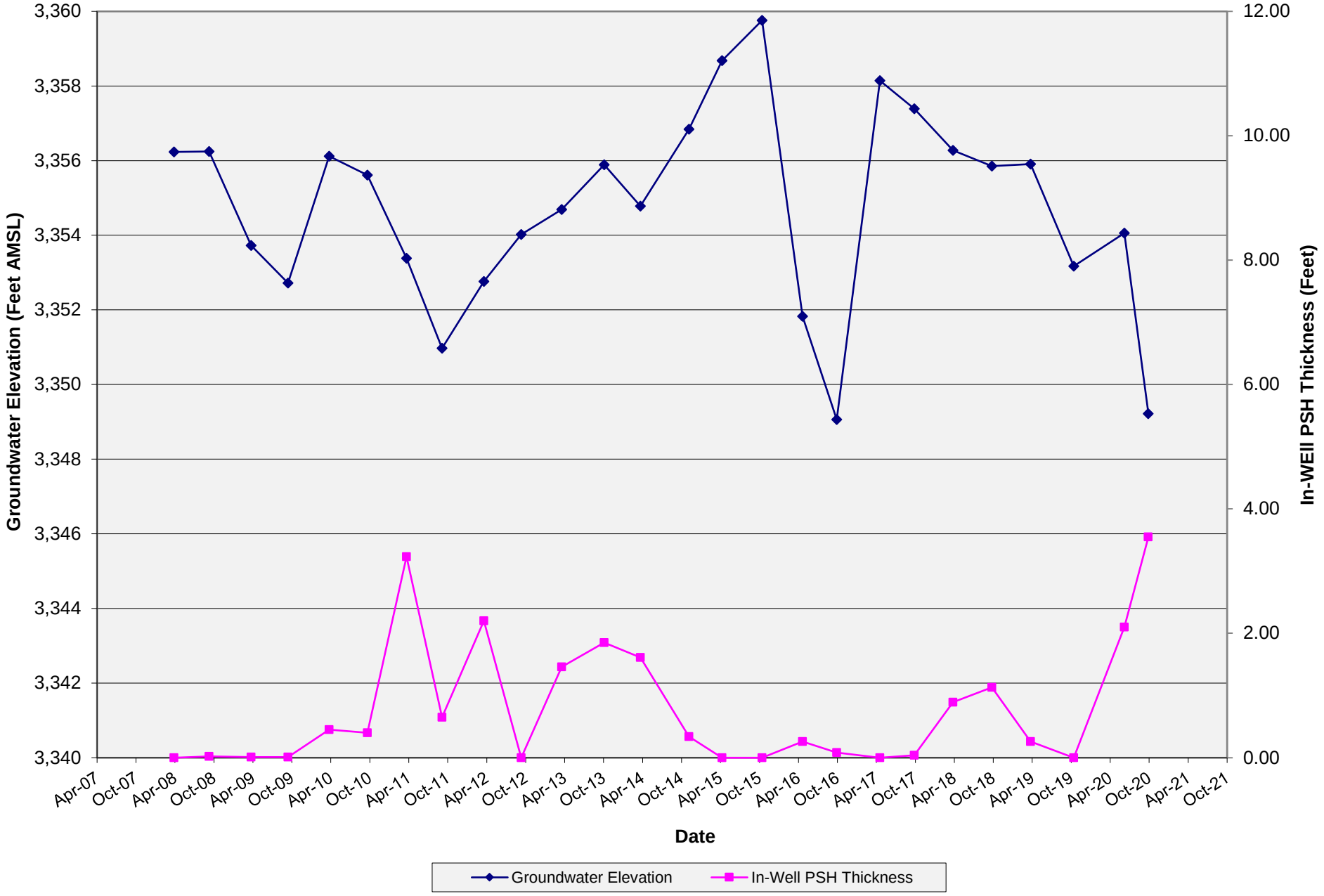


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Received by OCD: 6/23/2021 4:05:29 PM

RW-8: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

North Refinery

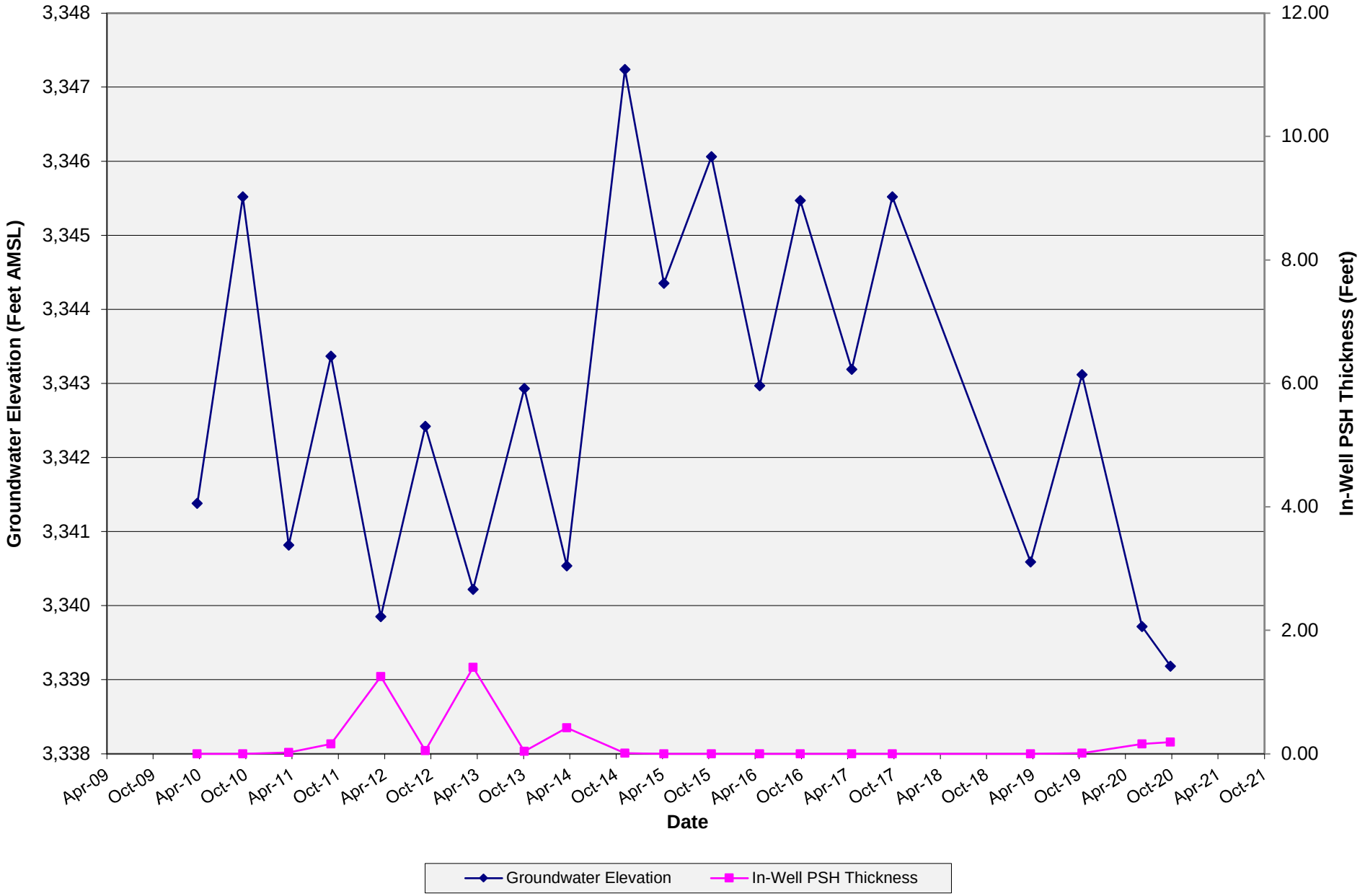


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KWB-2R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

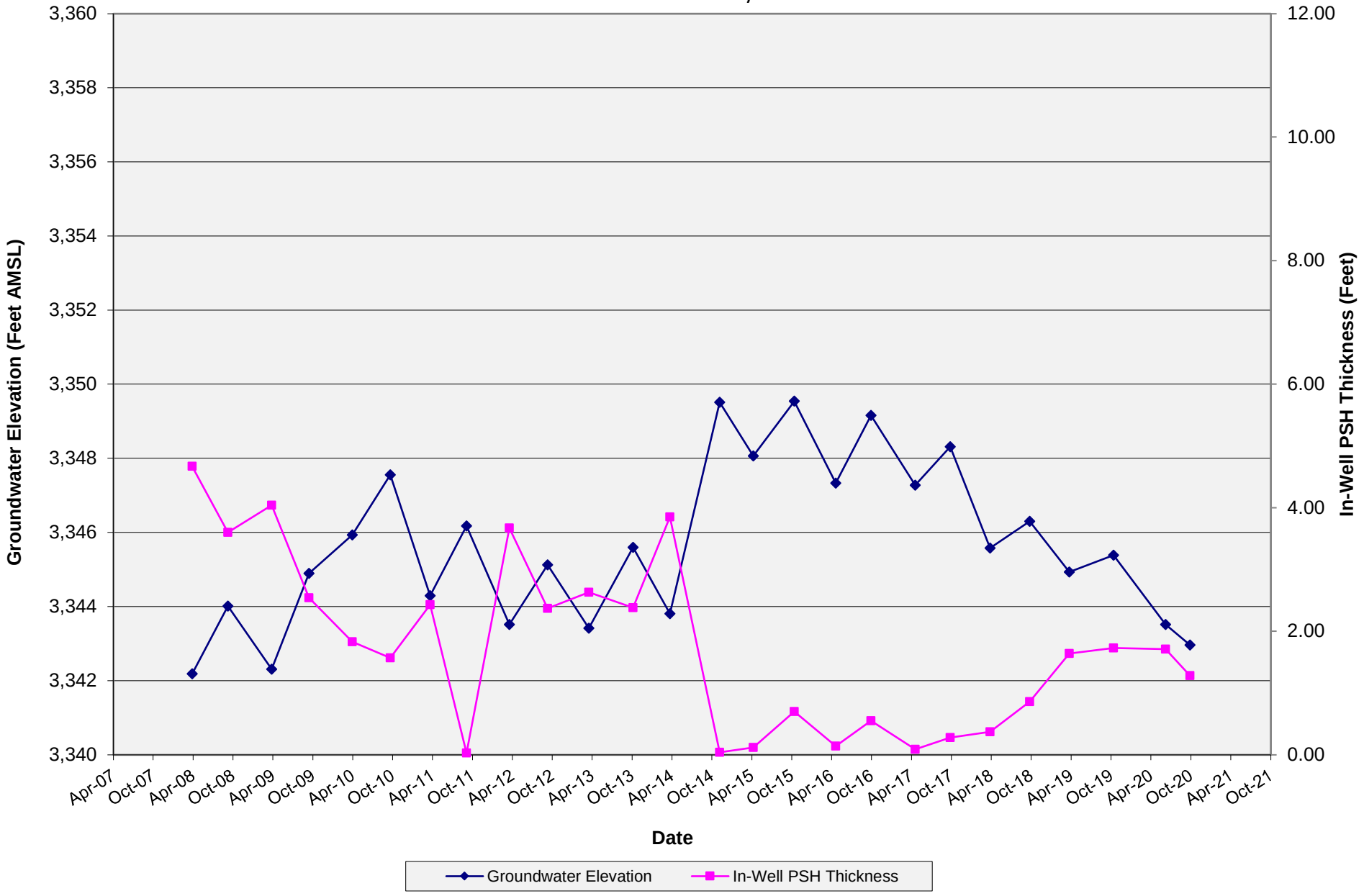


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Received by OCD: 6/23/2021 4:05:29 PM

KWB-4: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

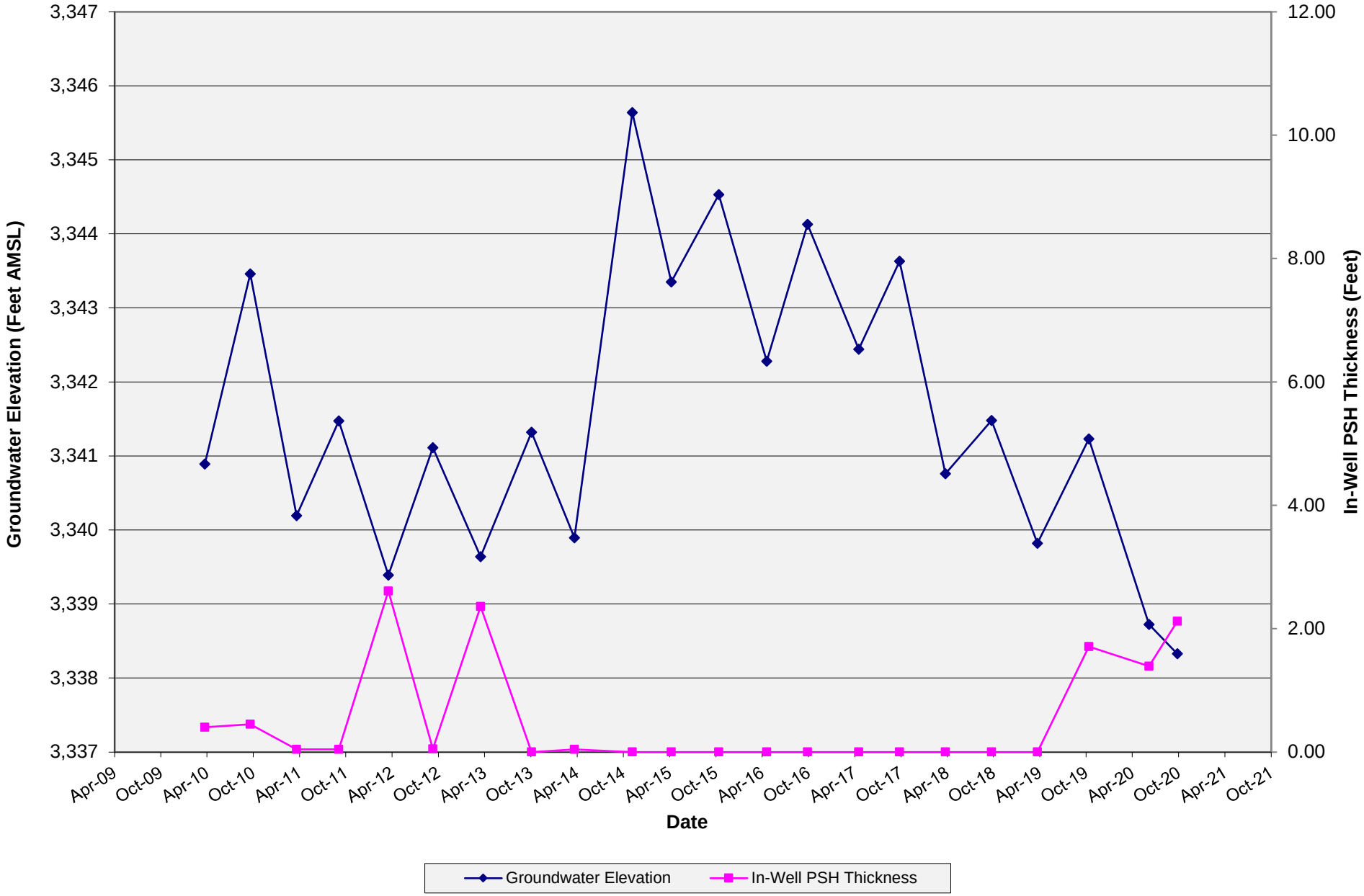


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Received by OCD: 6/23/2021 4:05:29 PM

KWB-5: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

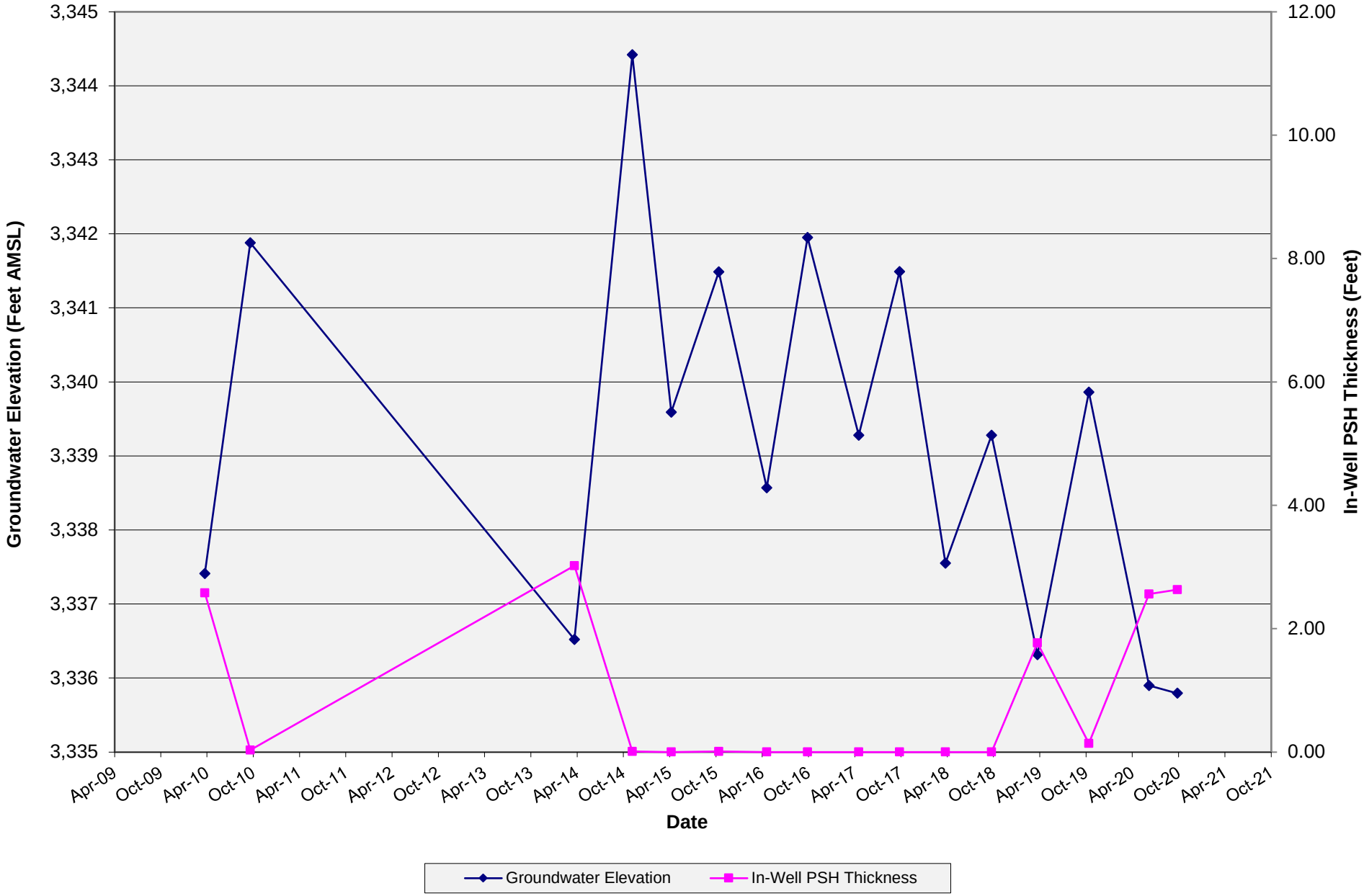


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Received by OCD: 6/23/2021 4:05:29 PM

KWB-6: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

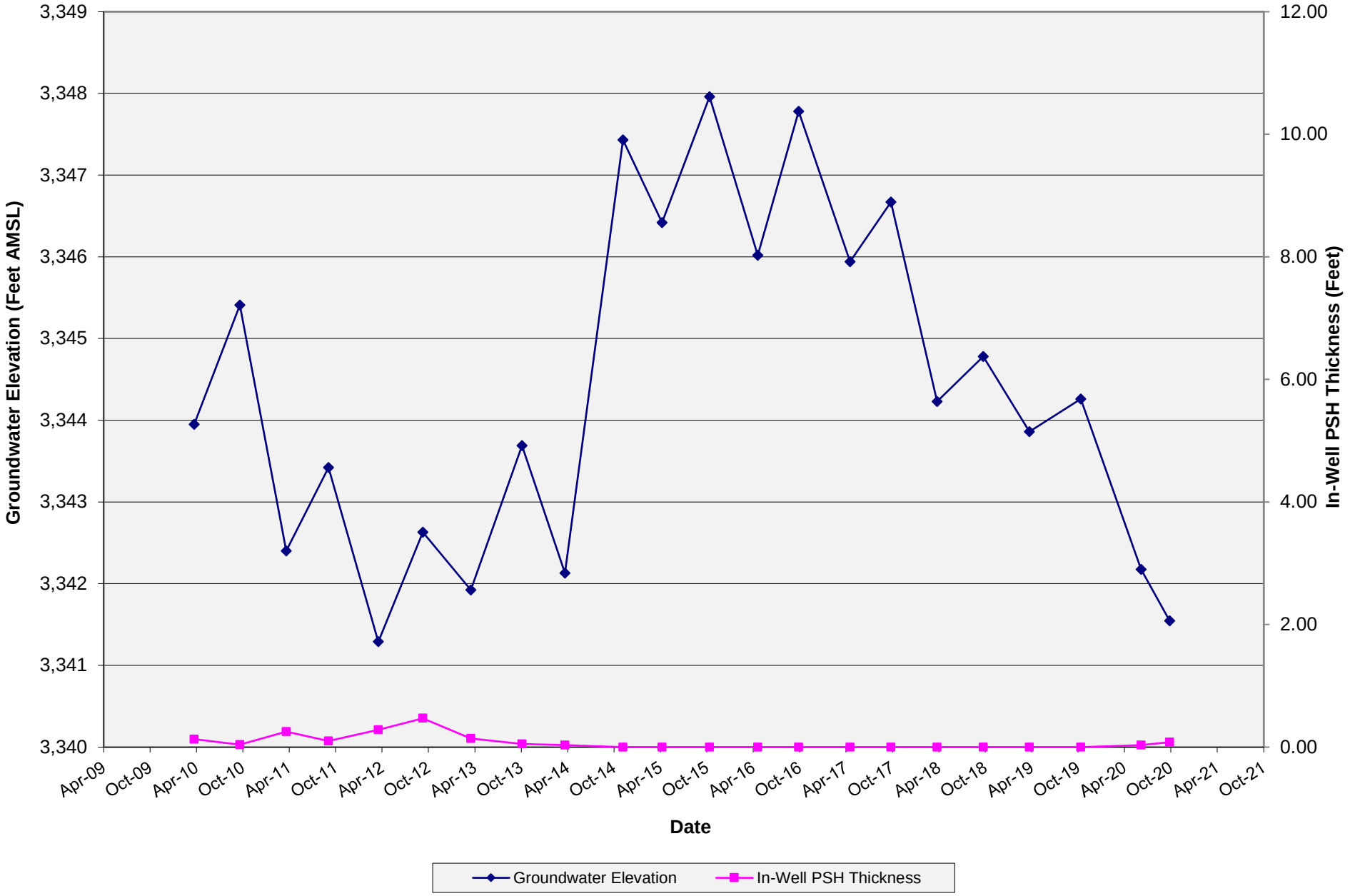


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MW-48: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

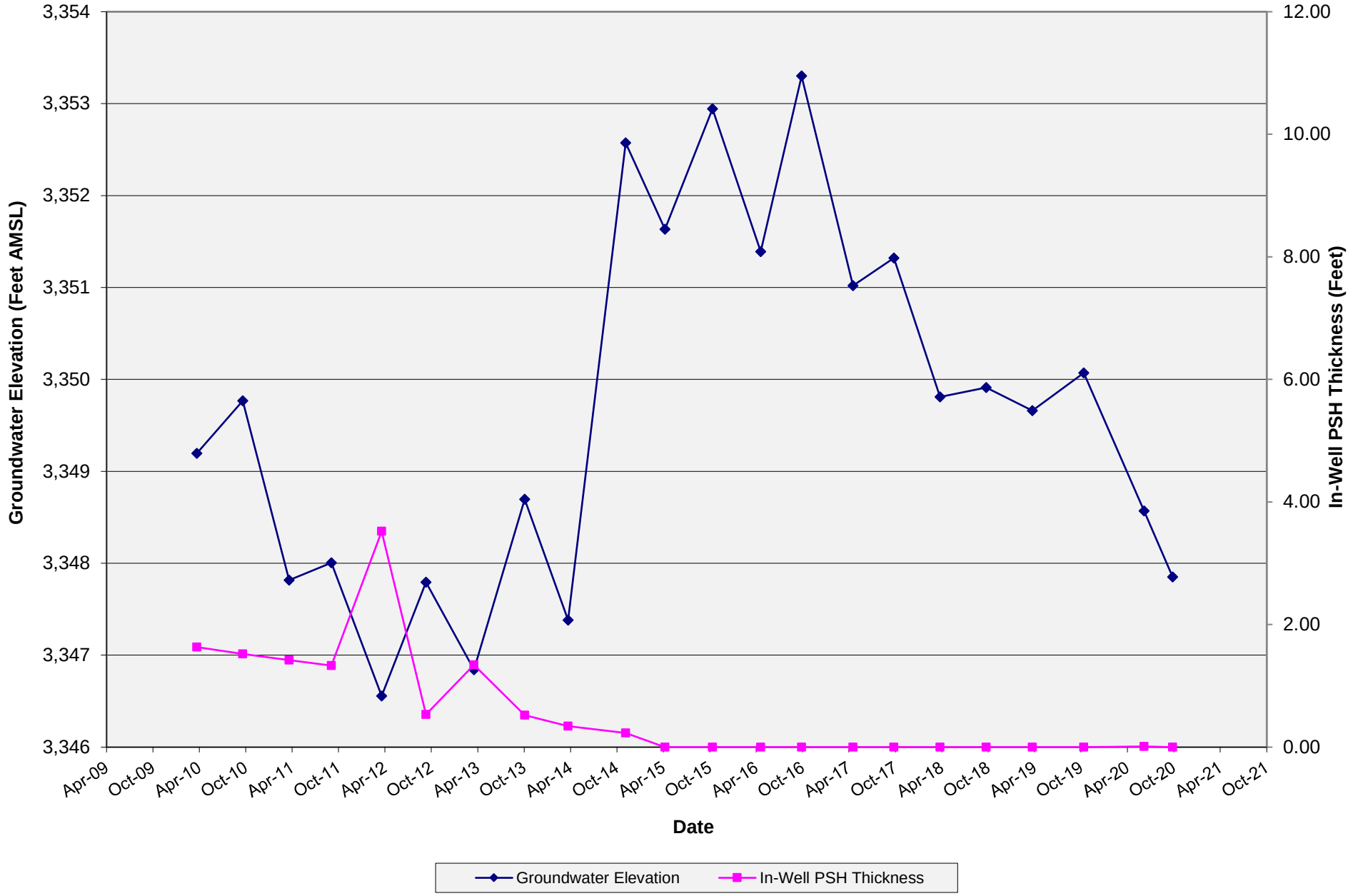


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Received by OCD: 6/23/2021 4:05:29 PM

MW-64: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

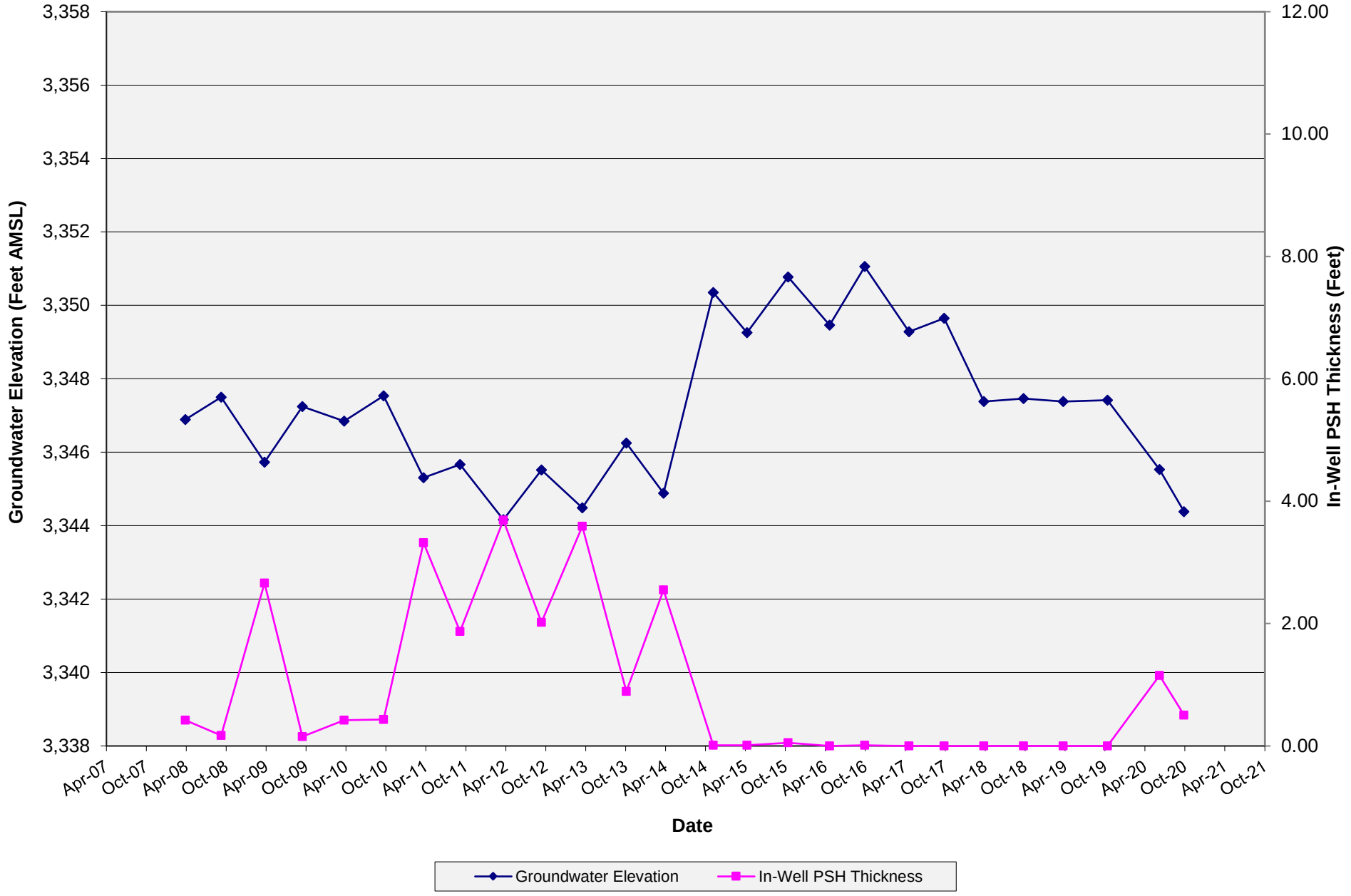


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Received by OCD: 6/23/2021 4:05:29 PM

MW-65: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

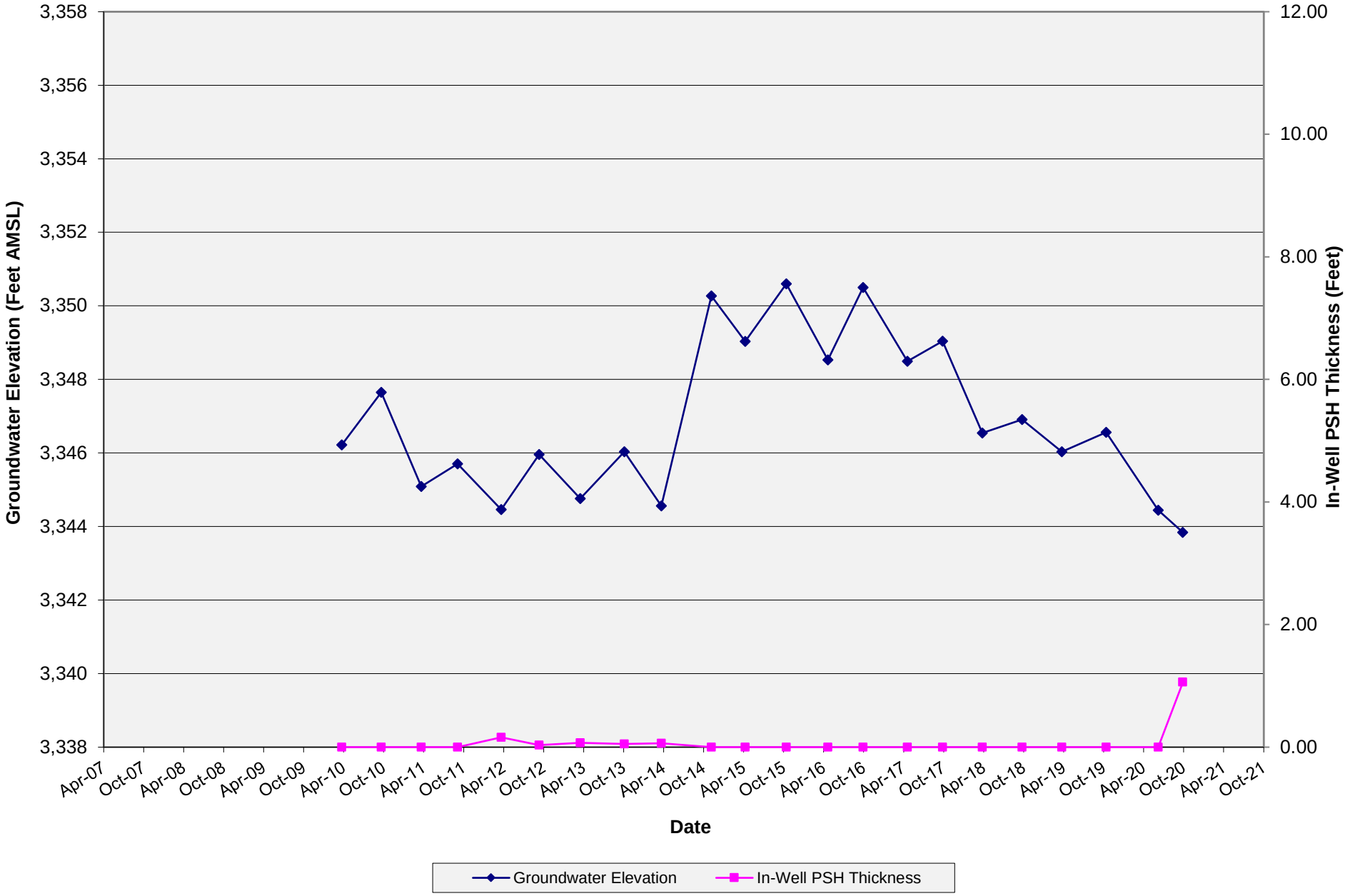


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MW-99: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

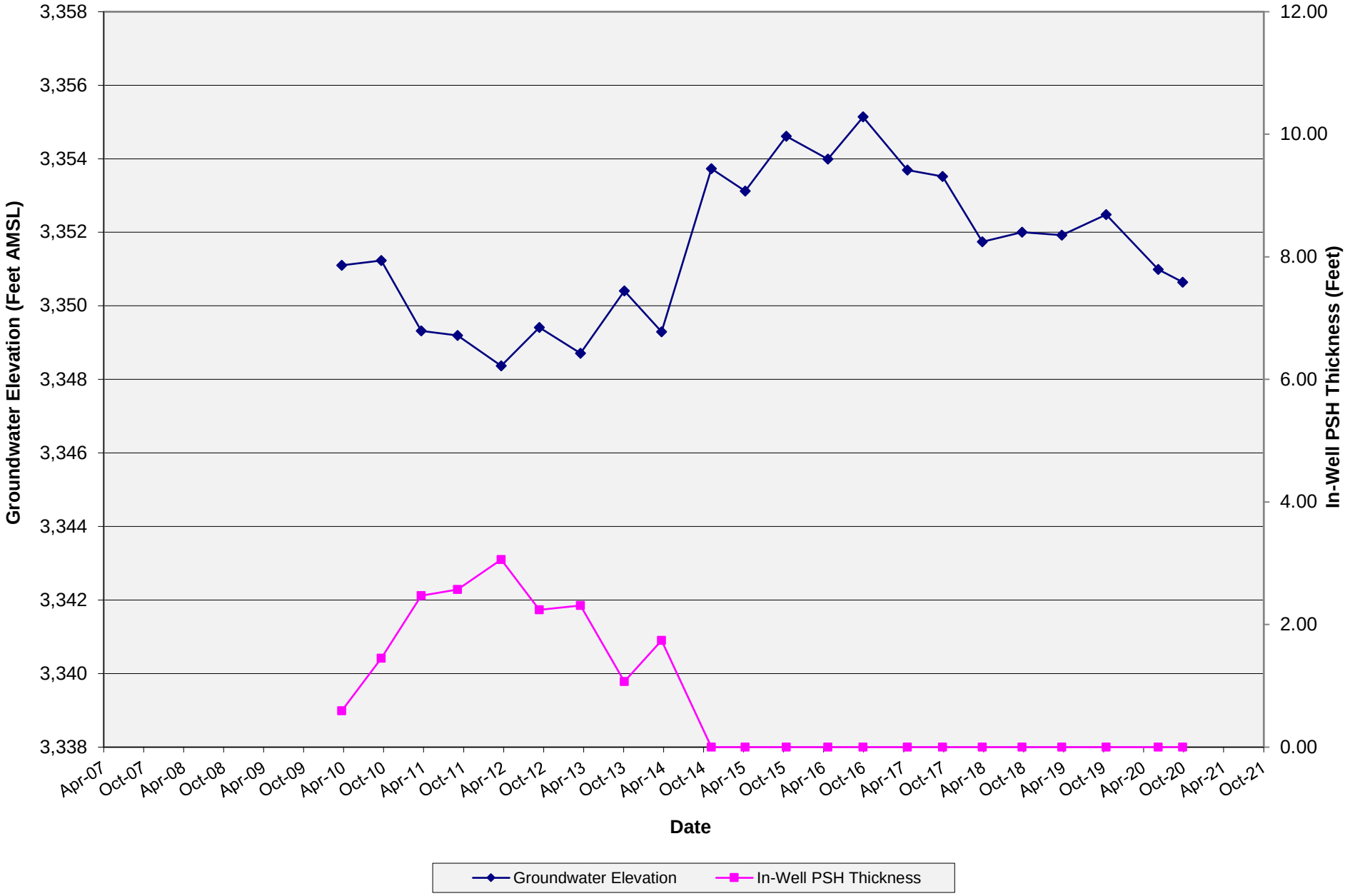


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Received by OCD: 6/23/2021 4:05:29 PM

MW-102: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

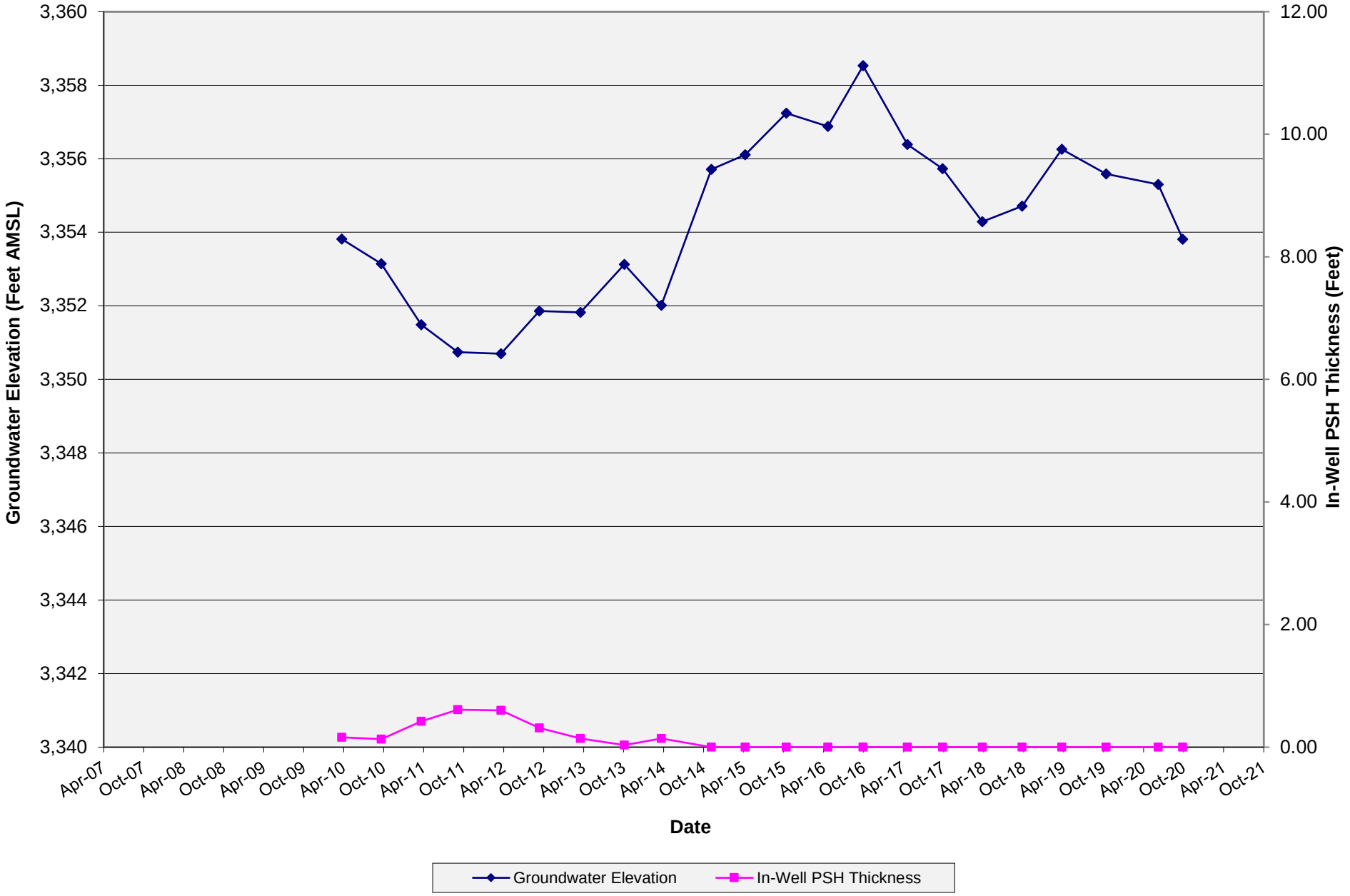


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Received by OCD: 6/23/2021 4:05:29 PM

MW-105: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

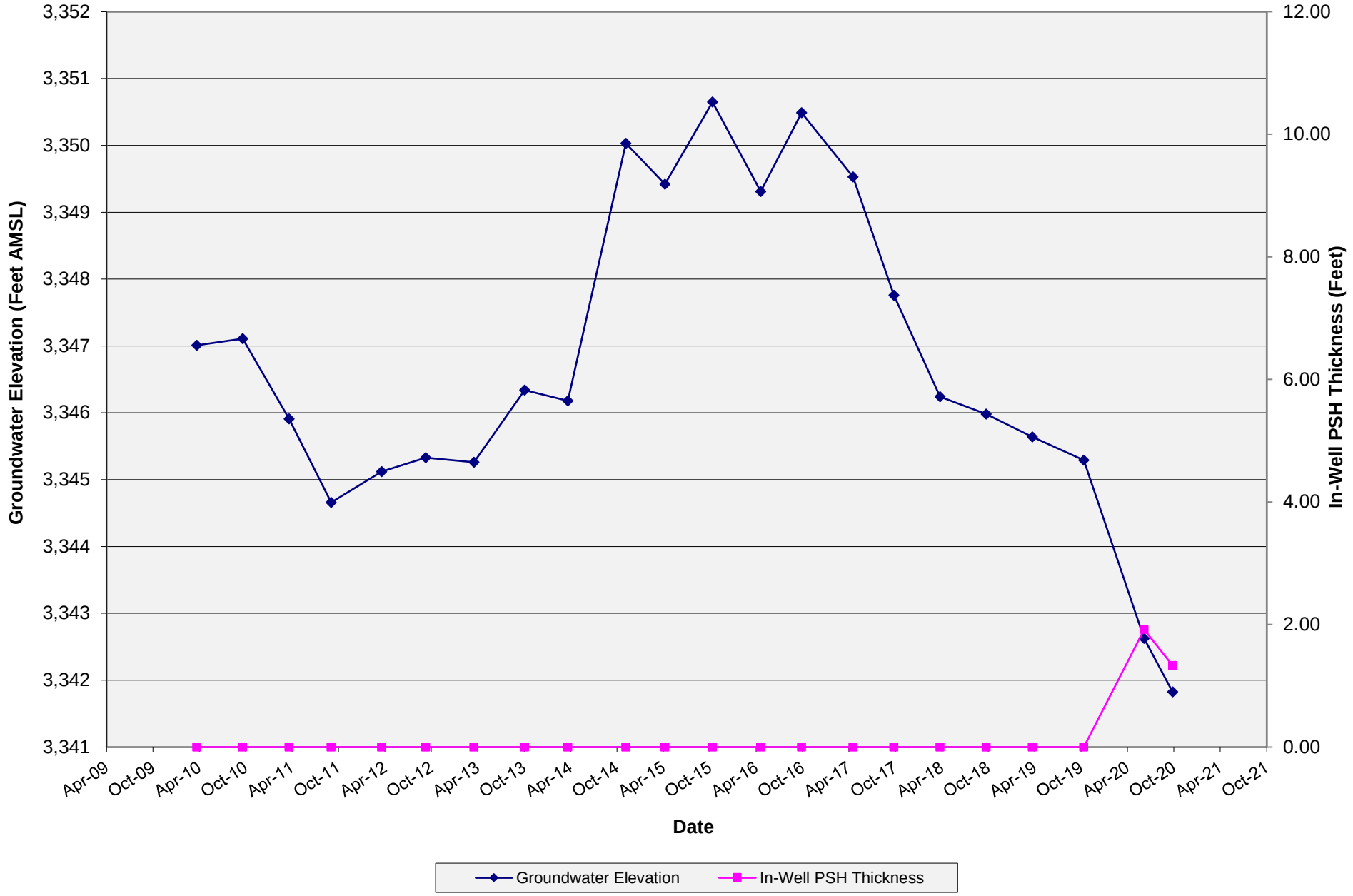


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Received by OCD: 6/23/2021 4:05:29 PM

MW-107: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

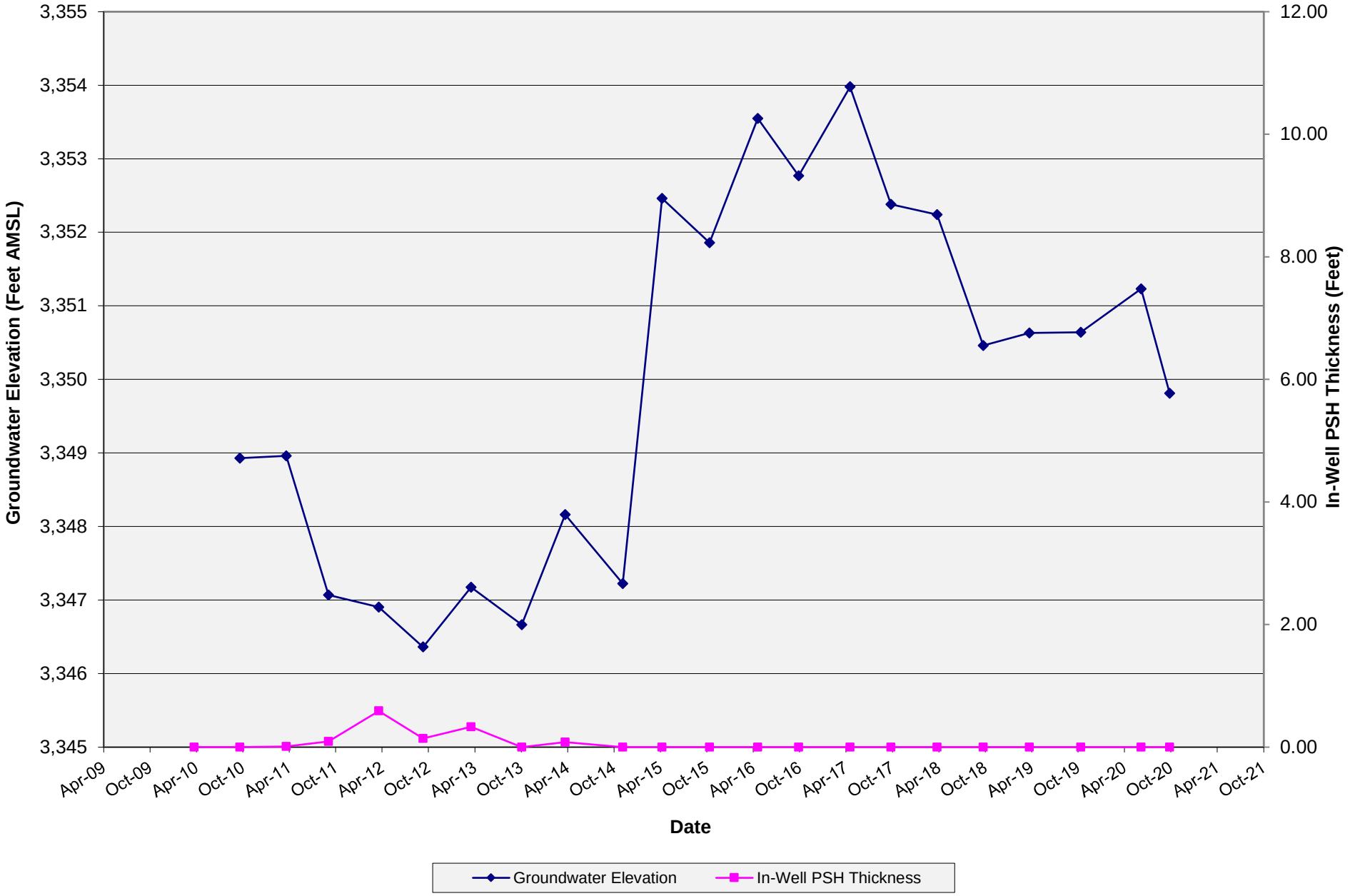


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Received by OCD: 6/23/2021 4:05:29 PM

RW-4R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

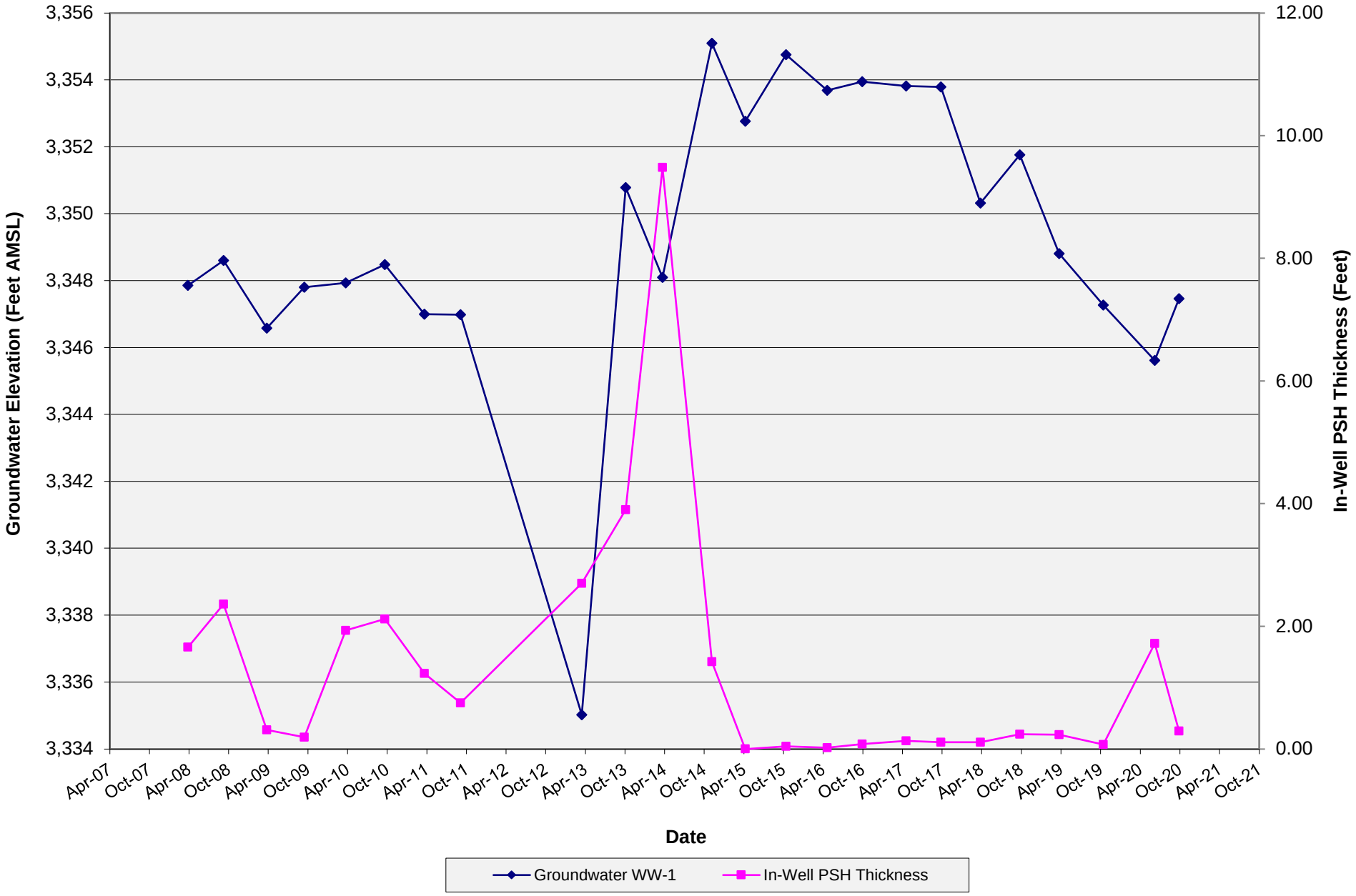


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Received by OCD: 6/23/2021 4:05:29 PM

RW-5 & RW-5R: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

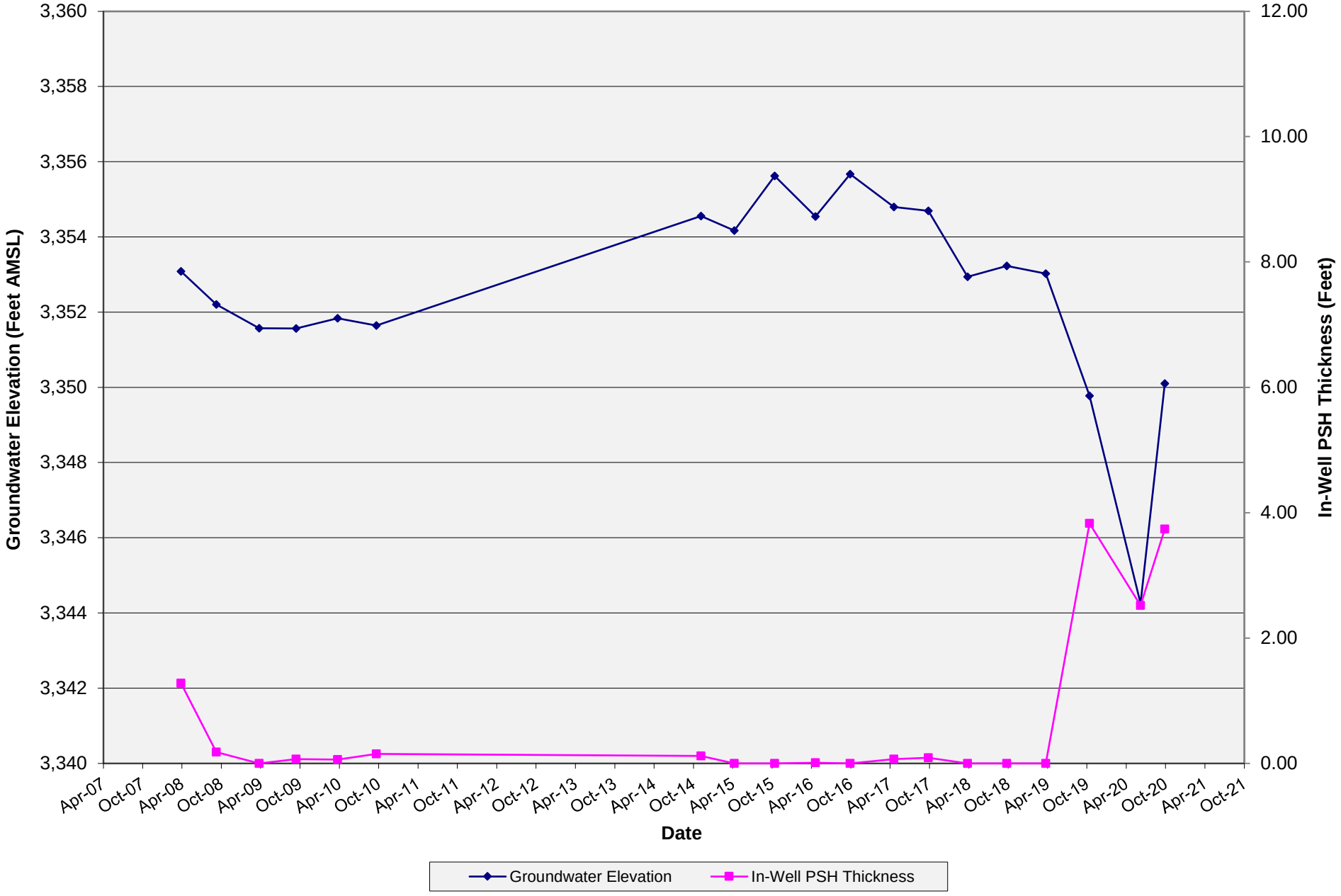


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RW-6: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

South Refinery

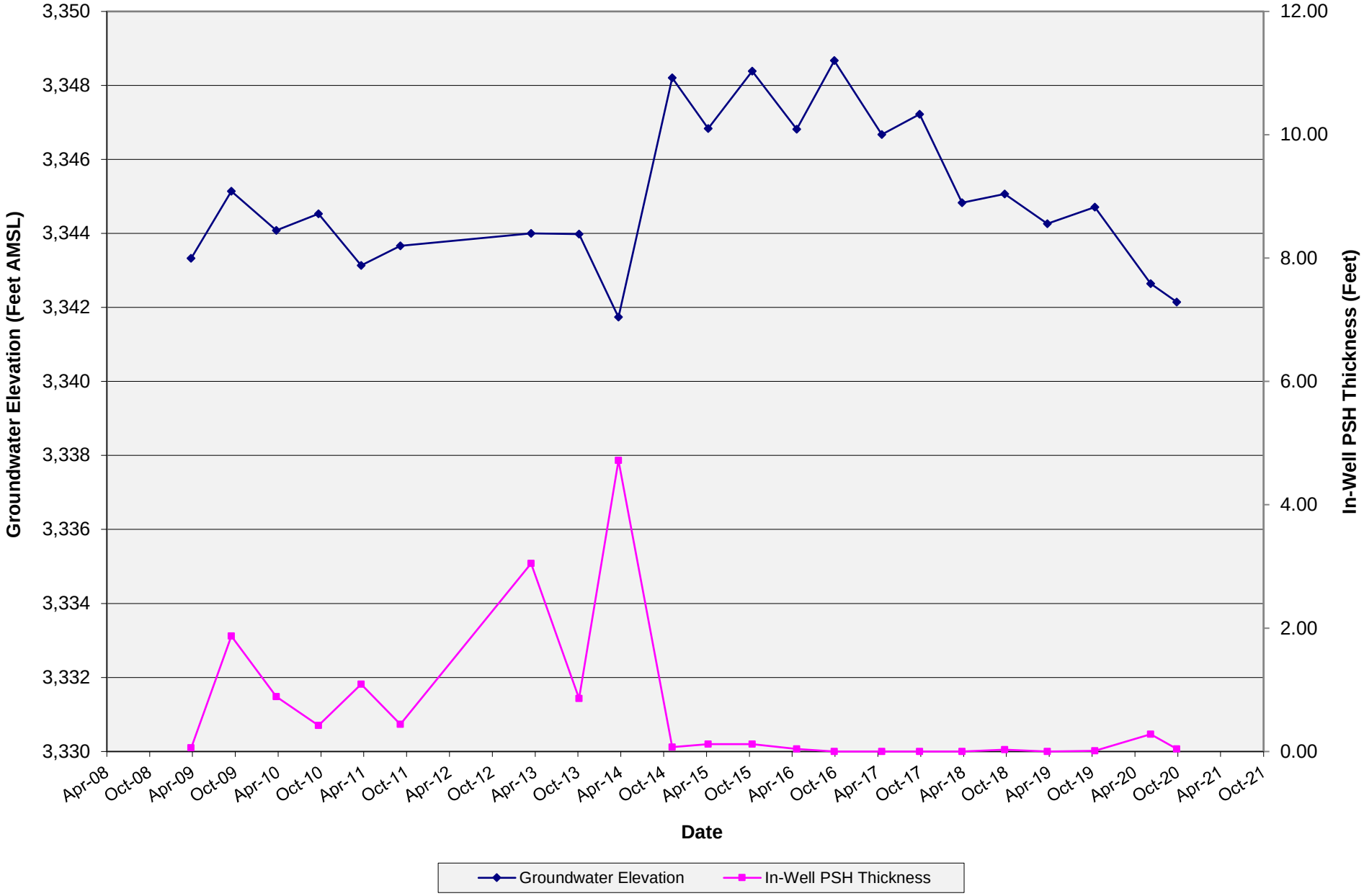


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Received by OCD: 6/23/2021 4:05:29 PM

RW-15C: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

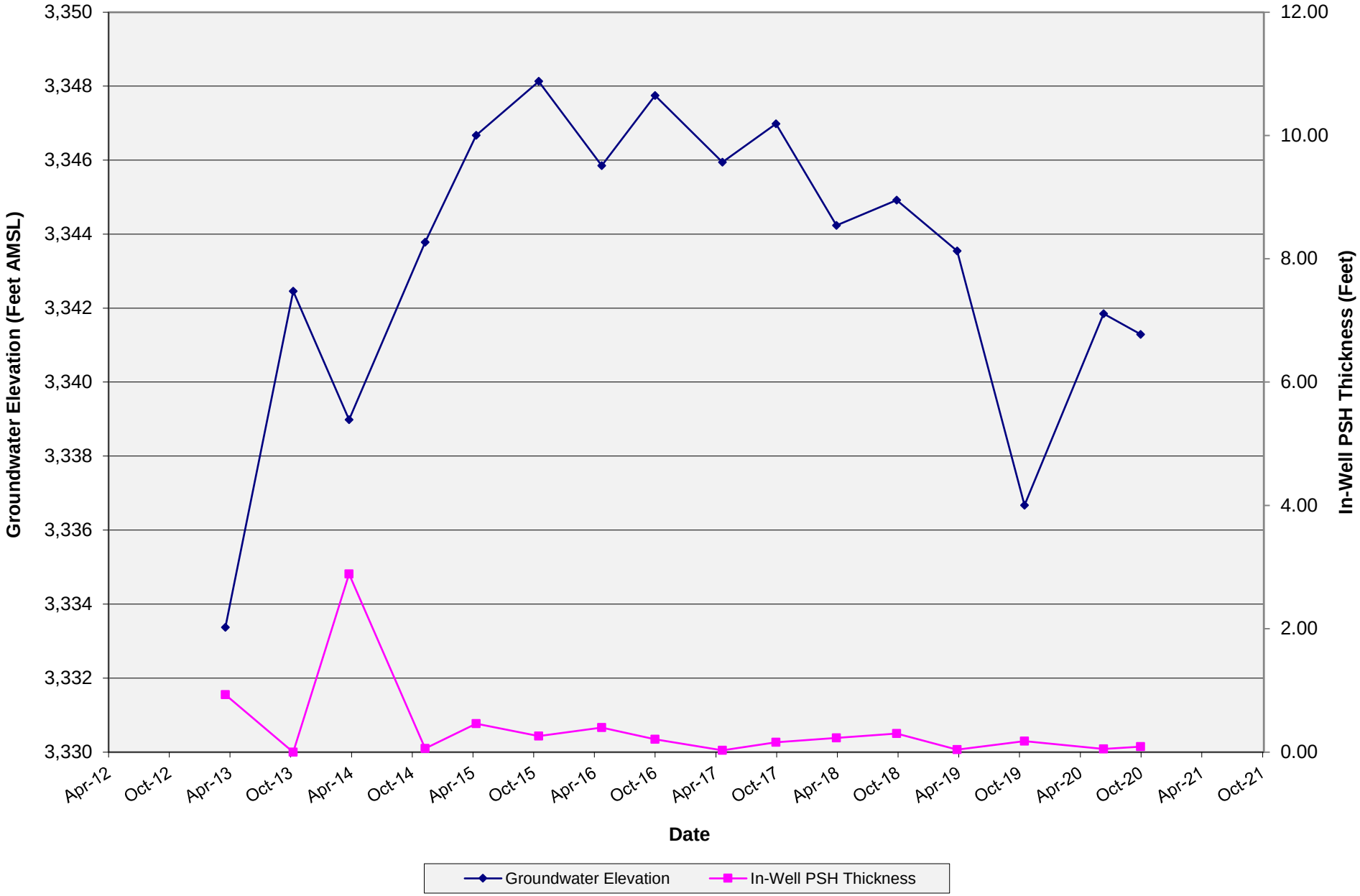
South Refinery



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Received by OCD: 6/23/2021 4:05:29 PM

RW-19: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery
South Refinery

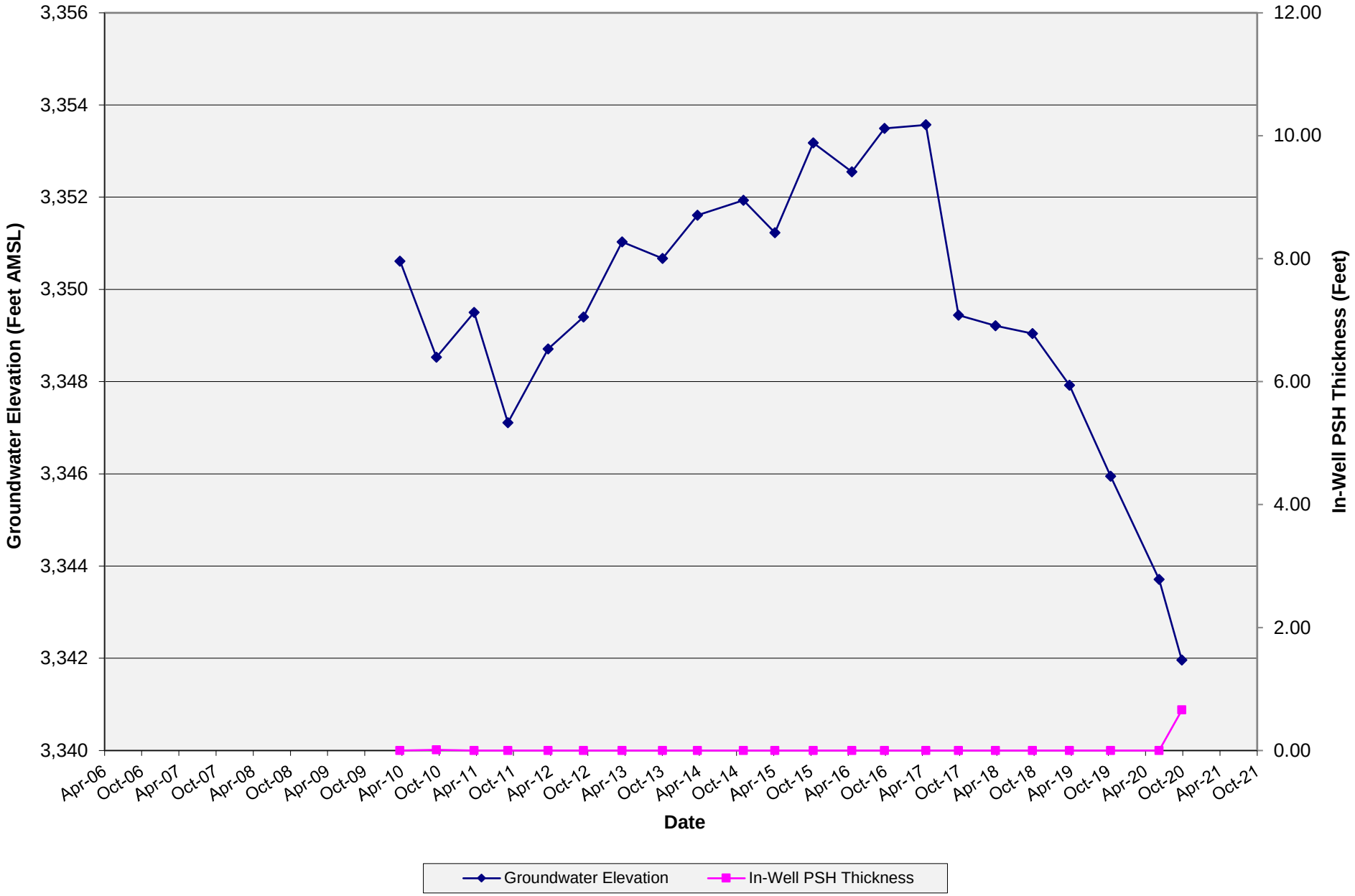


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Received by OCD: 6/23/2021 4:05:29 PM

TEL-1: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Tetra Ethyl Lead Surface Impoundment

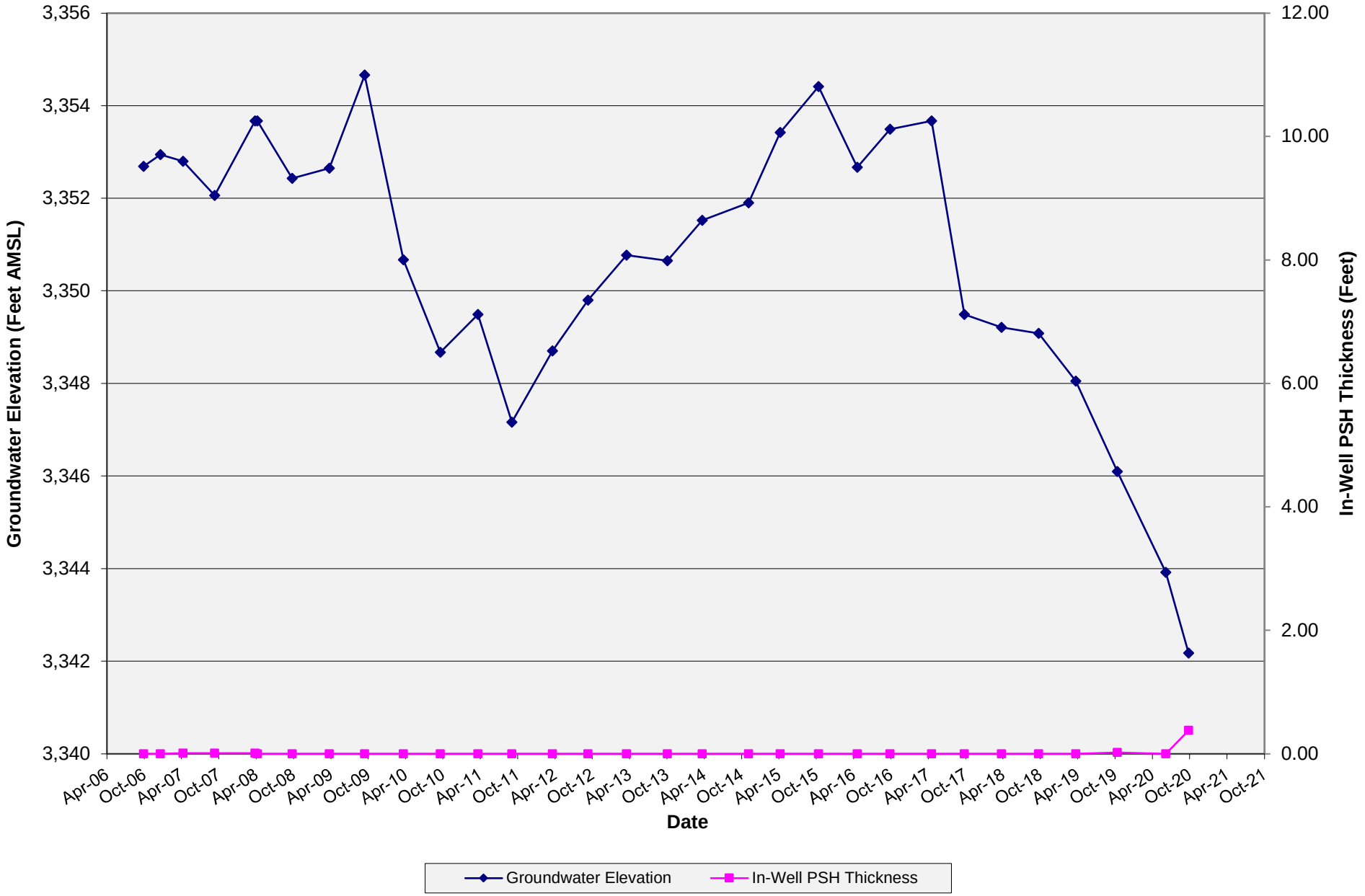


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Received by OCD: 6/23/2021 4:05:29 PM

TEL-2: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

Tetra Ethyl Lead Surface Impoundment

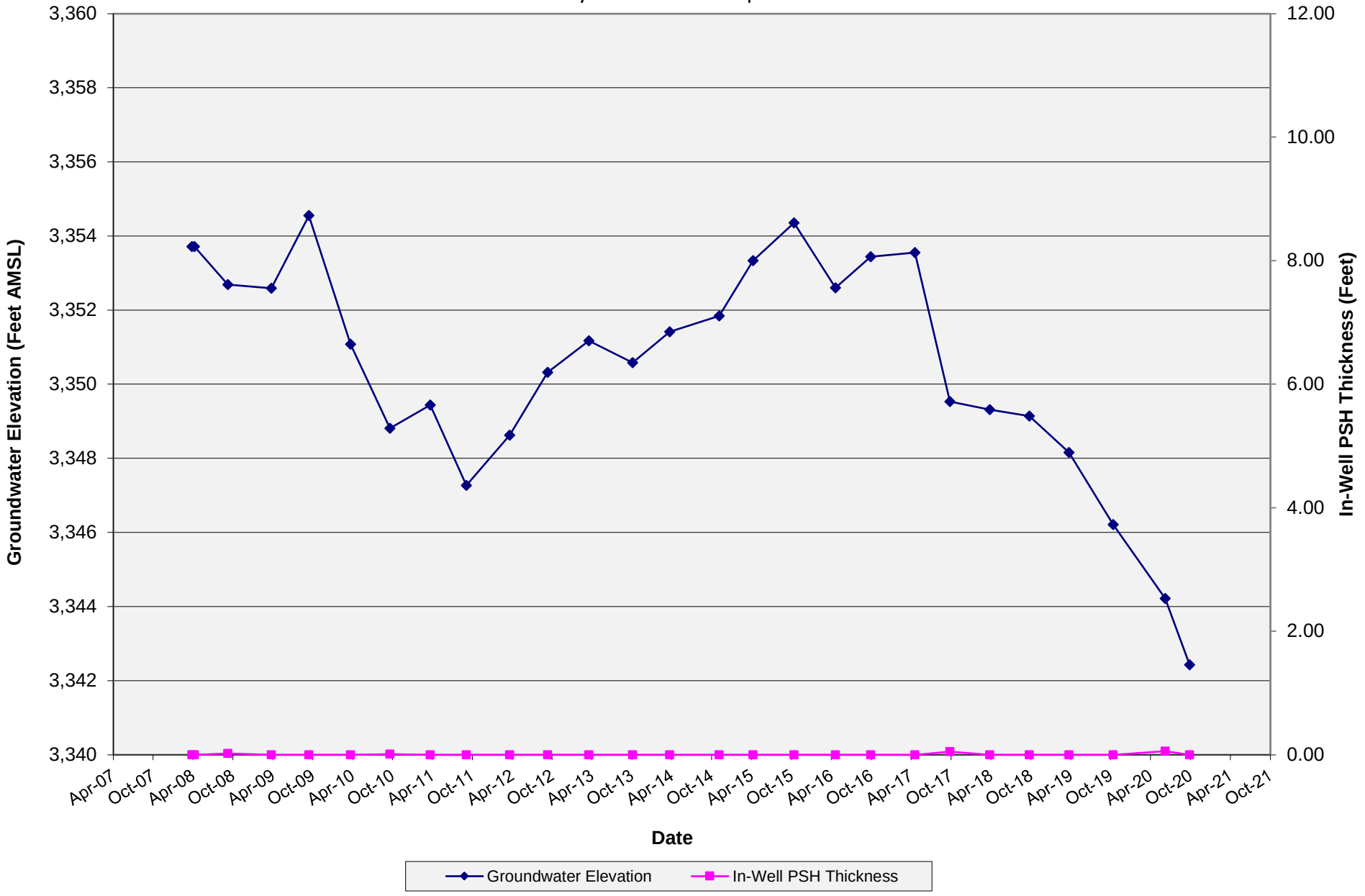


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Received by OCD: 6/23/2021 4:05:29 PM

TEL-3: Groundwater Elevations and In-Well PSH Thicknesses

HollyFrontier Navajo Refining LLC - Artesia Refinery

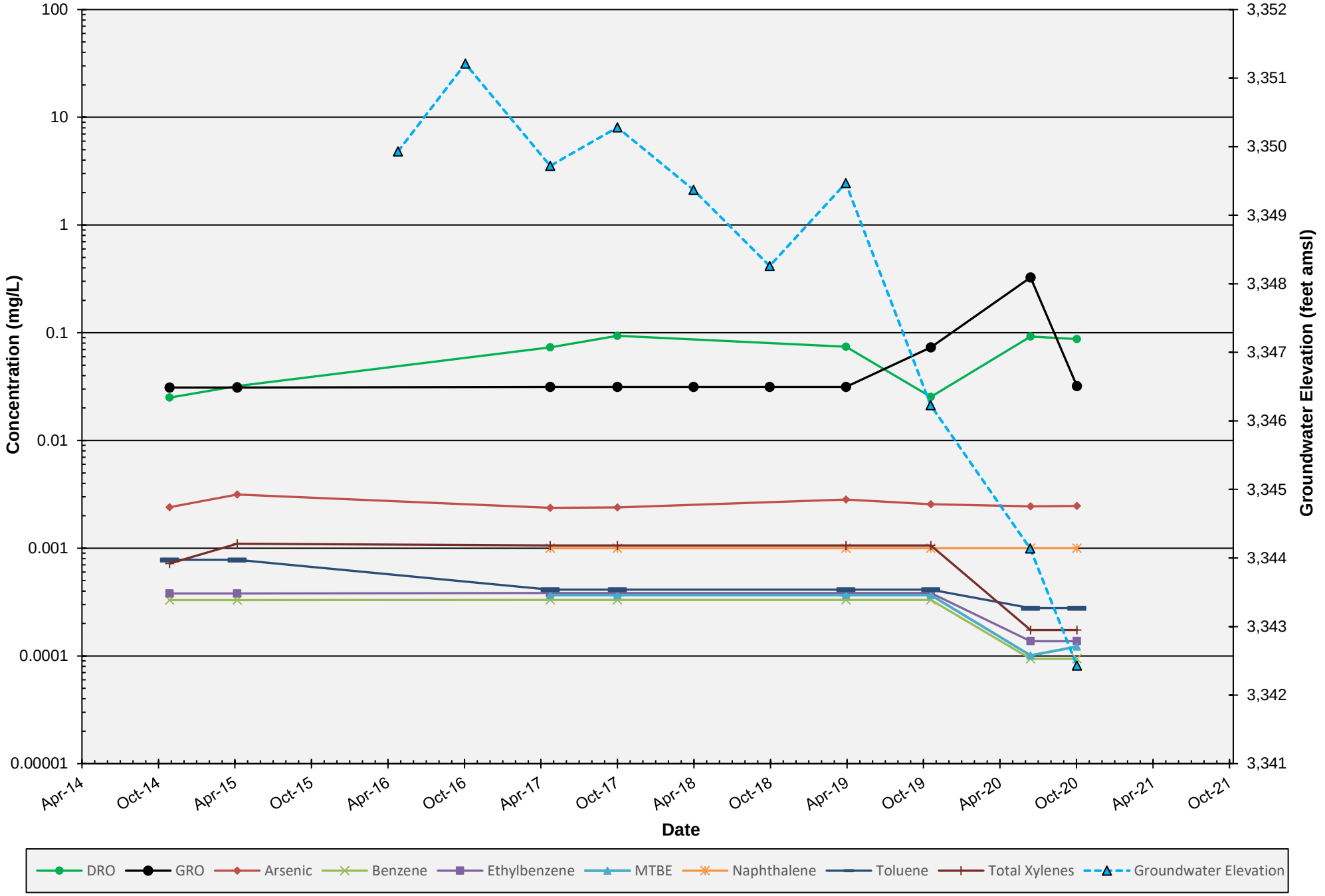
Tetra Ethyl Lead Surface Impoundment



MW-136: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

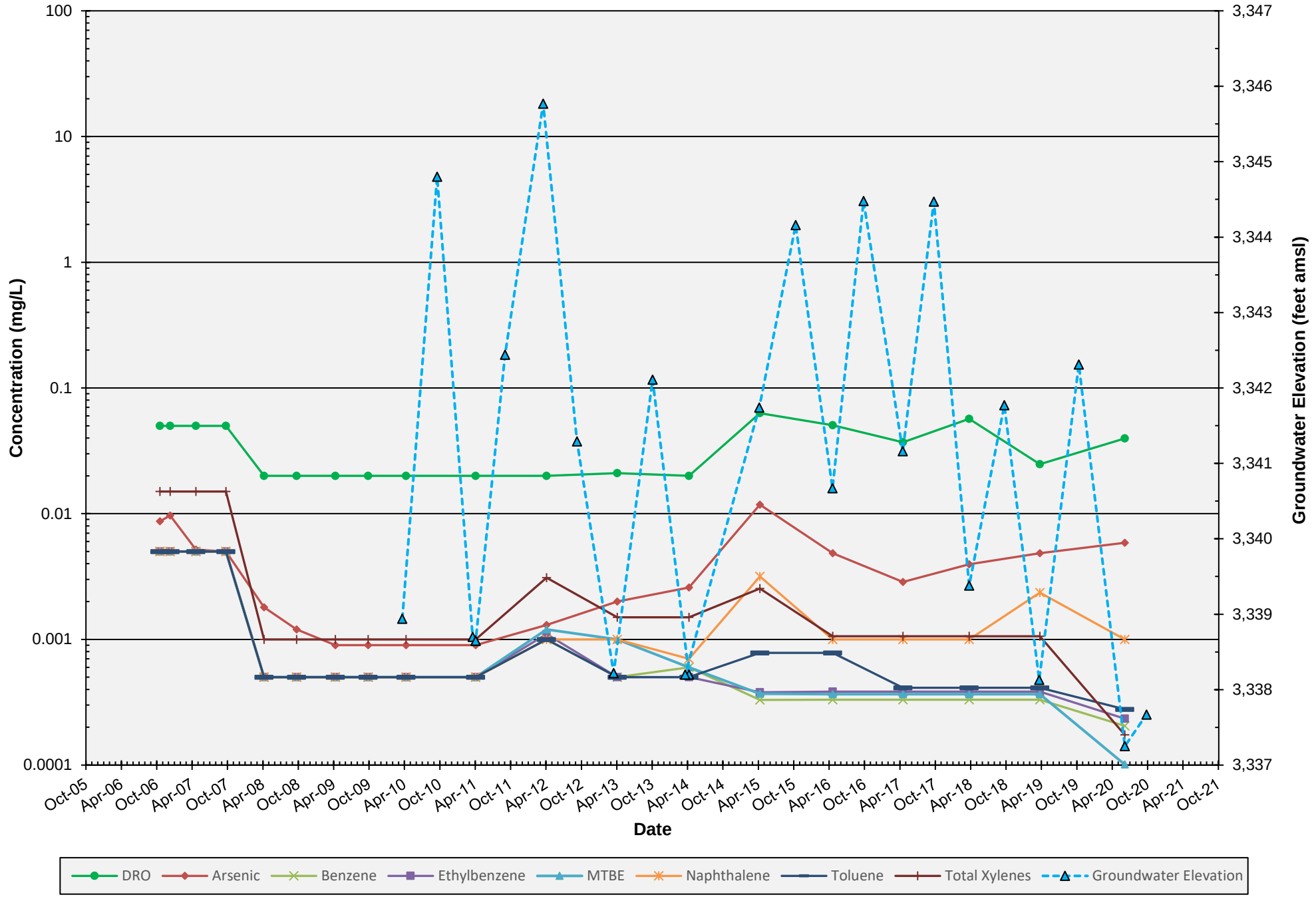
Up-Gradient of Refinery



KWB-13: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

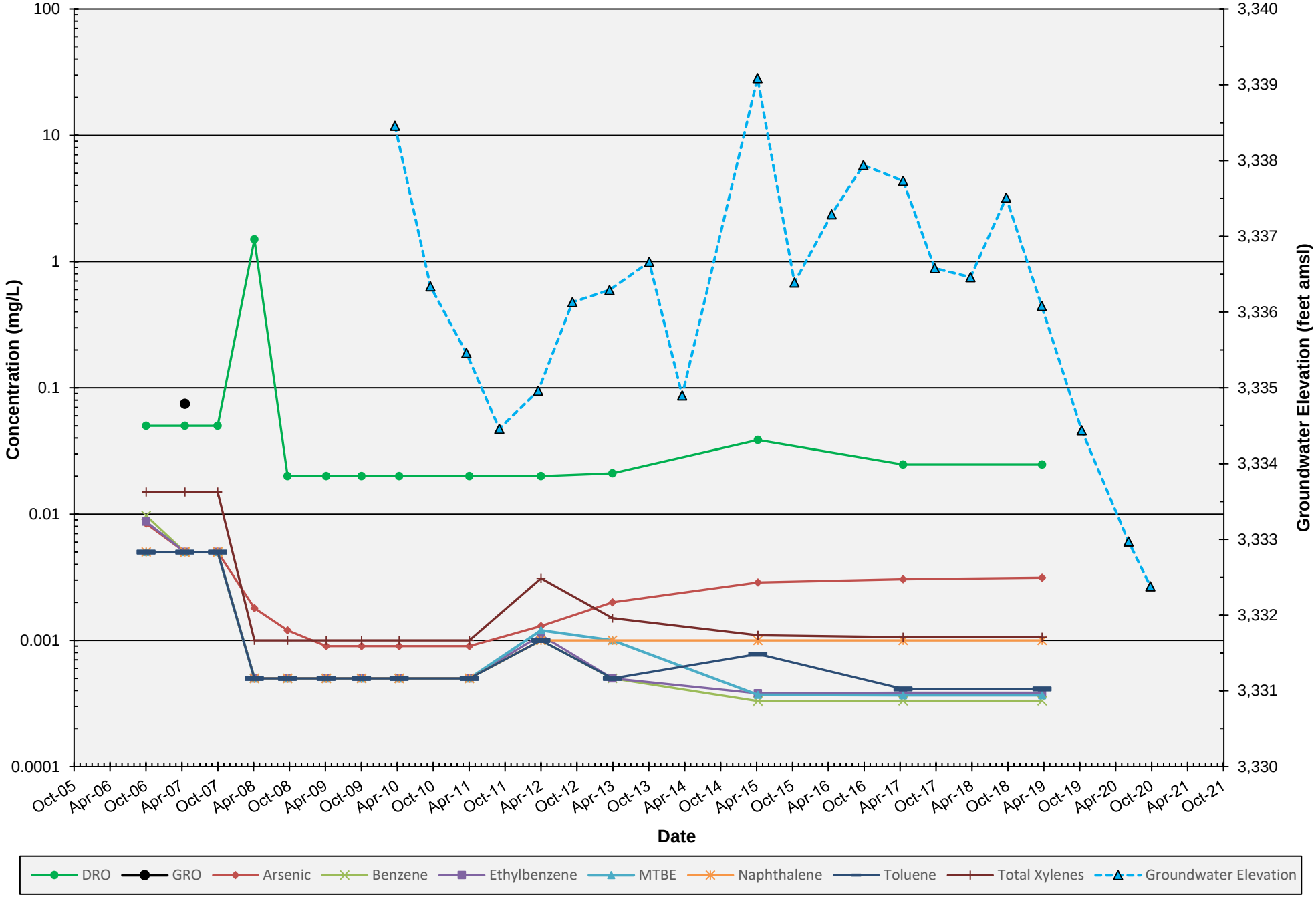
Cross-Gradient of Refinery



NP-5: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

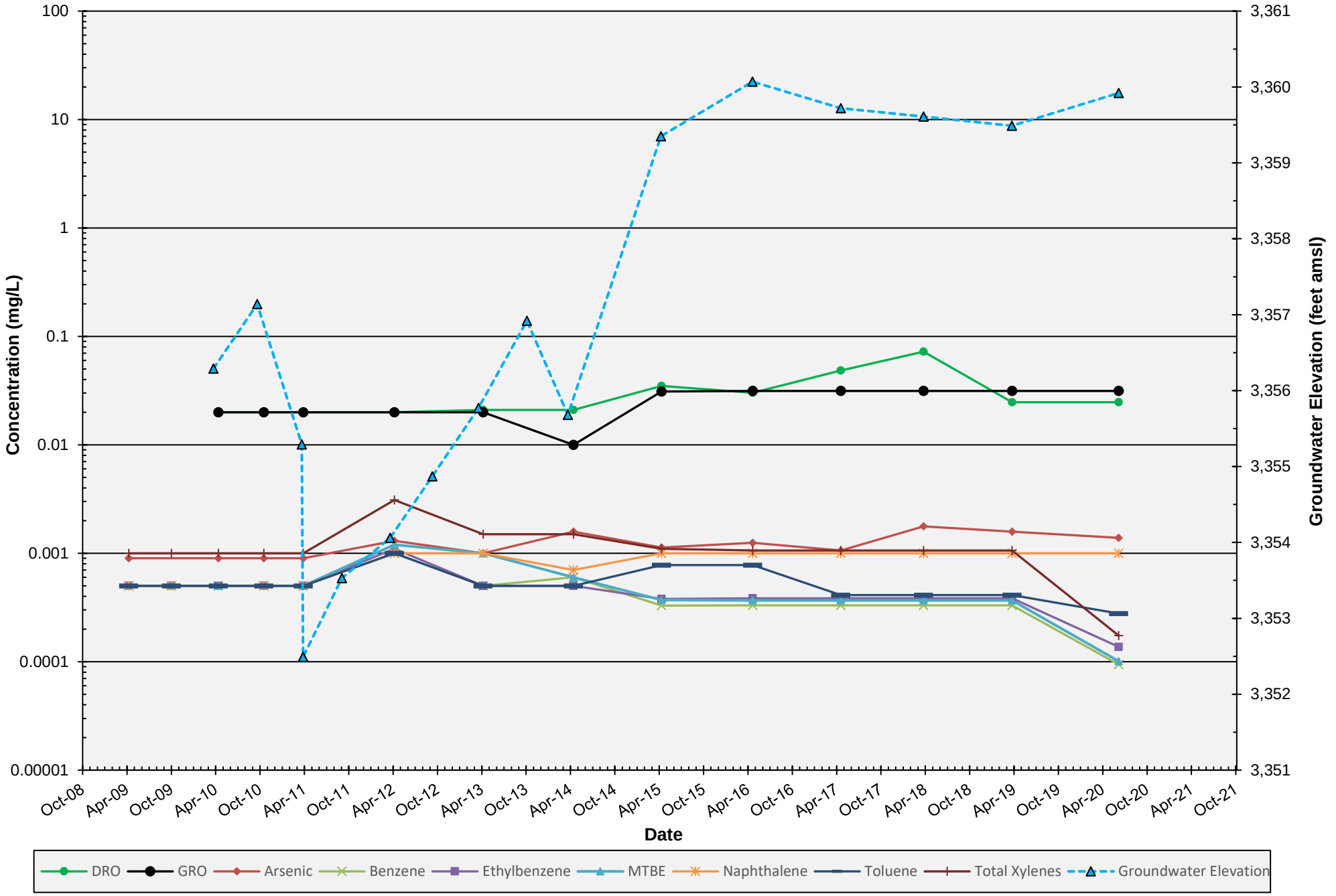
Cross-Gradient of Refinery



UG-1: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

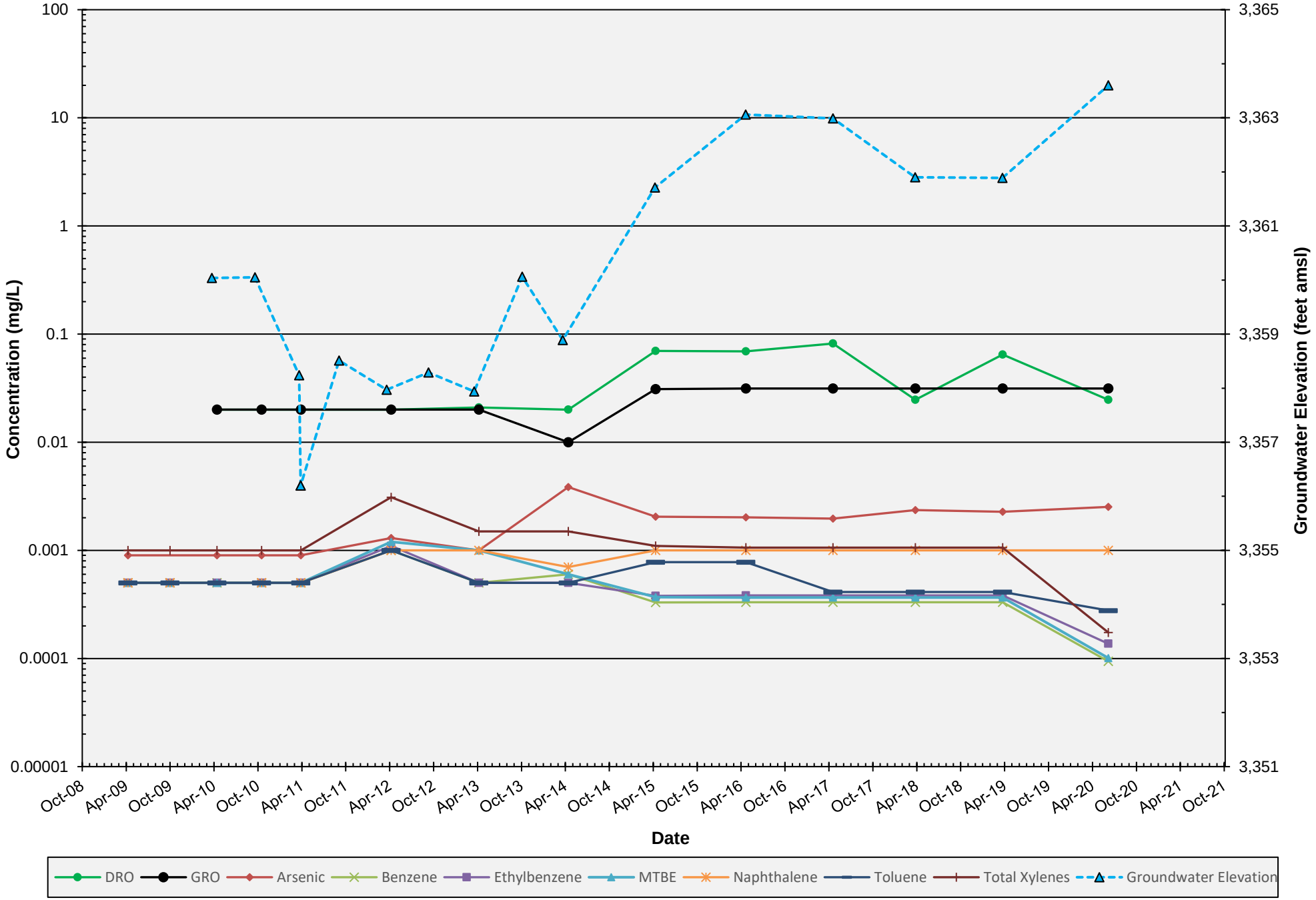
Up-Gradient of Refinery



UG-2: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

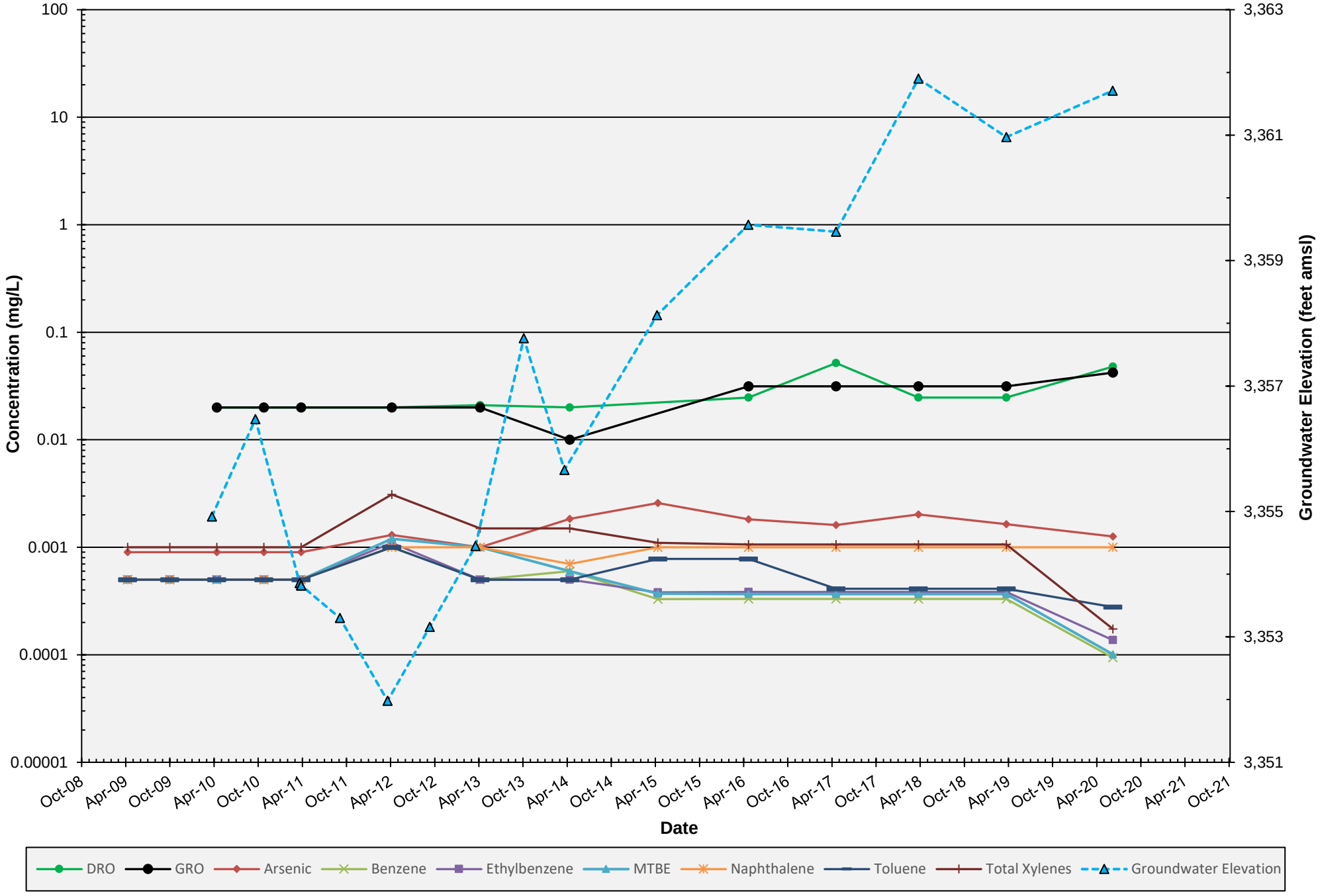
Up-Gradient of Refinery



UG-3R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

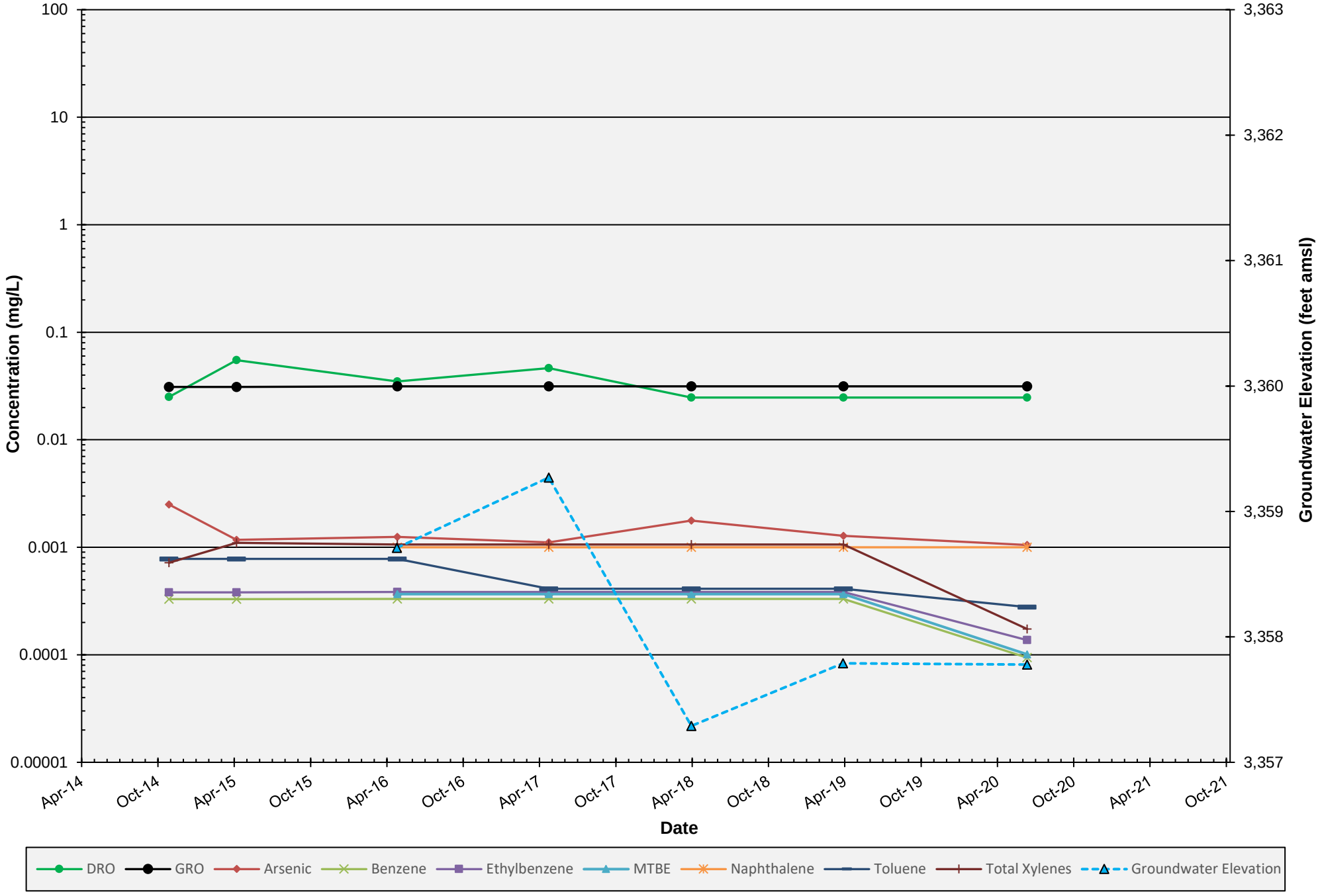
Up-Gradient of Refinery



UG-4: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

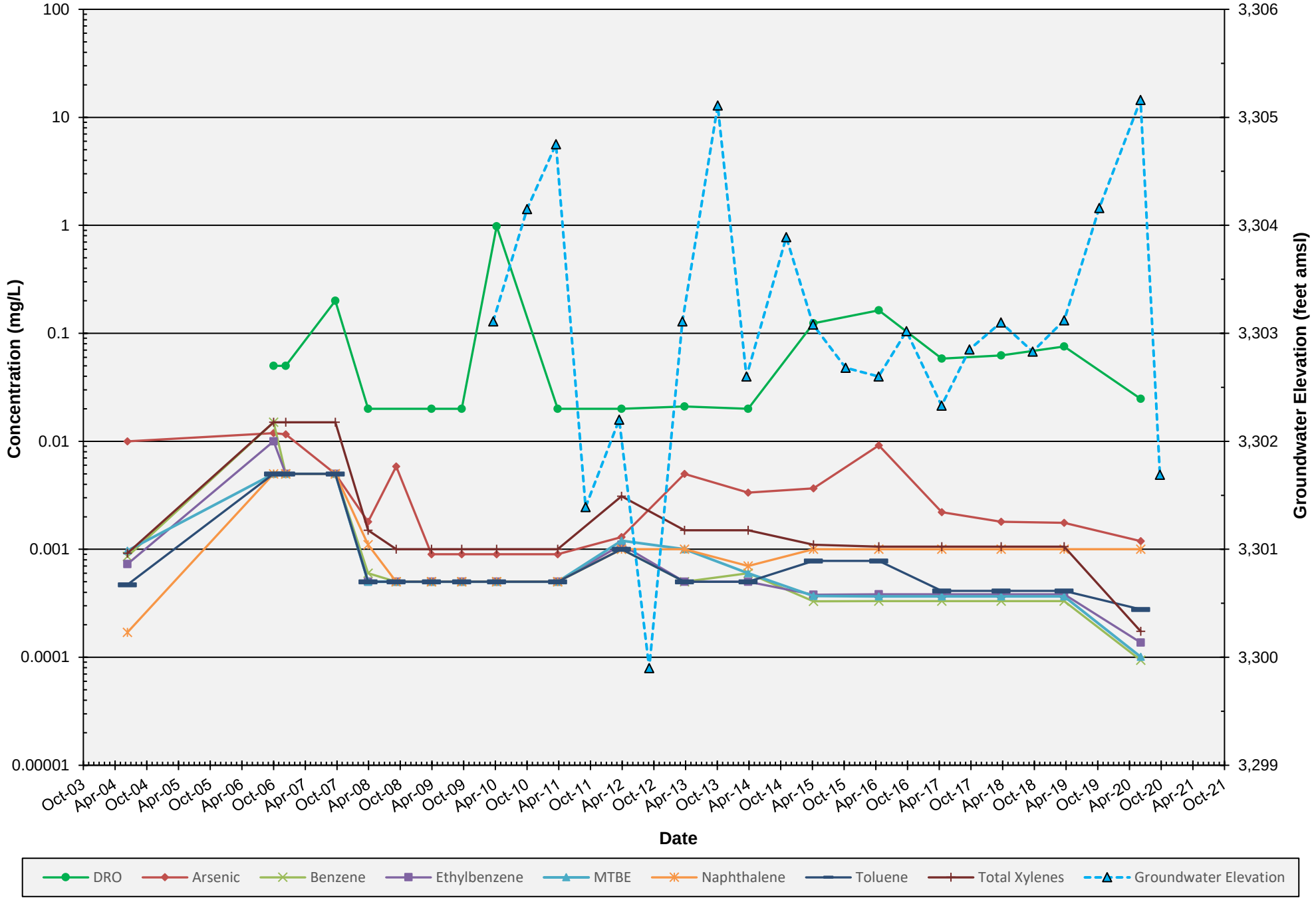
Up-Gradient of Refinery



MW-1R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

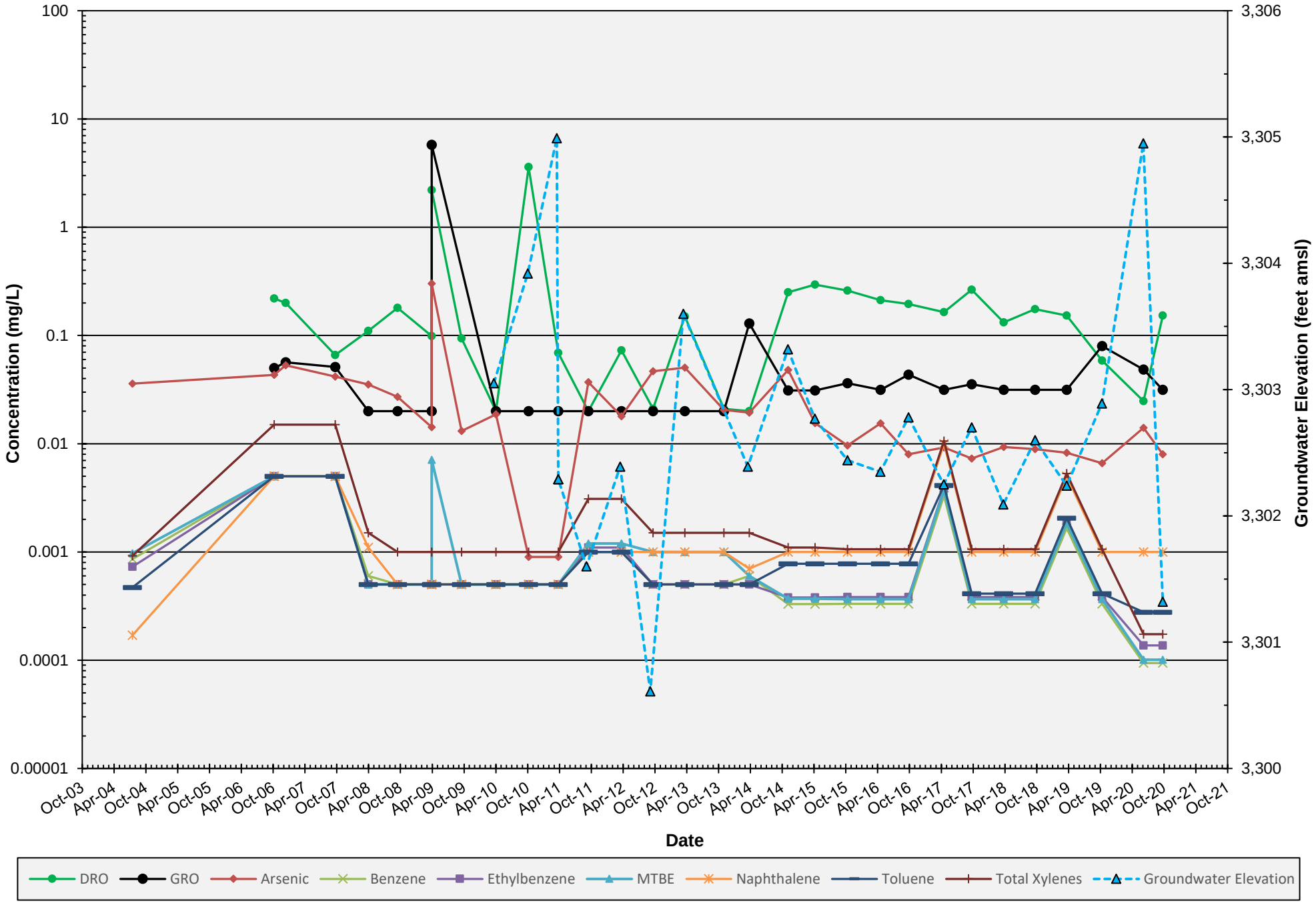
Evaporation Ponds



MW-2A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

Evaporation Ponds

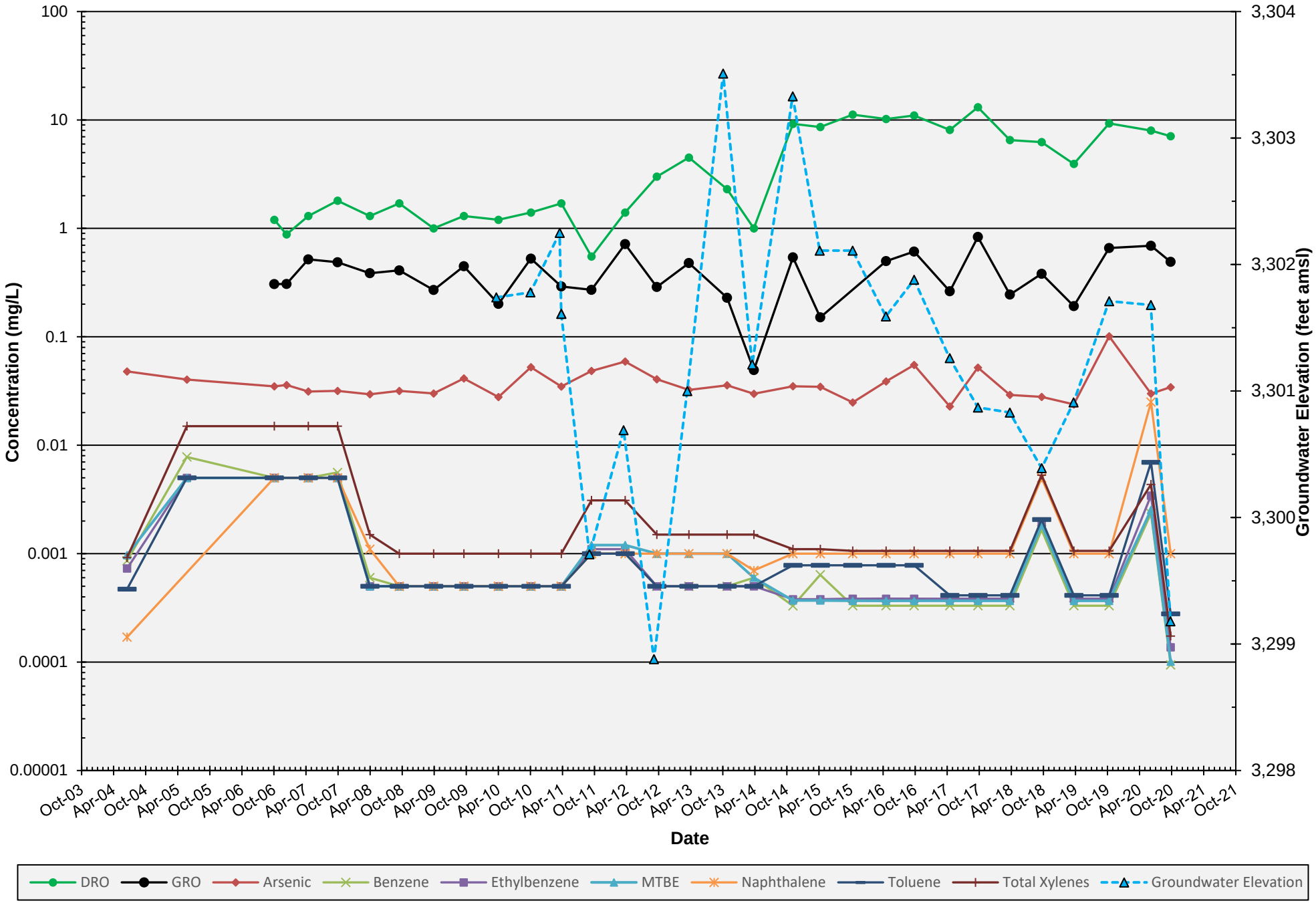


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MW-3: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

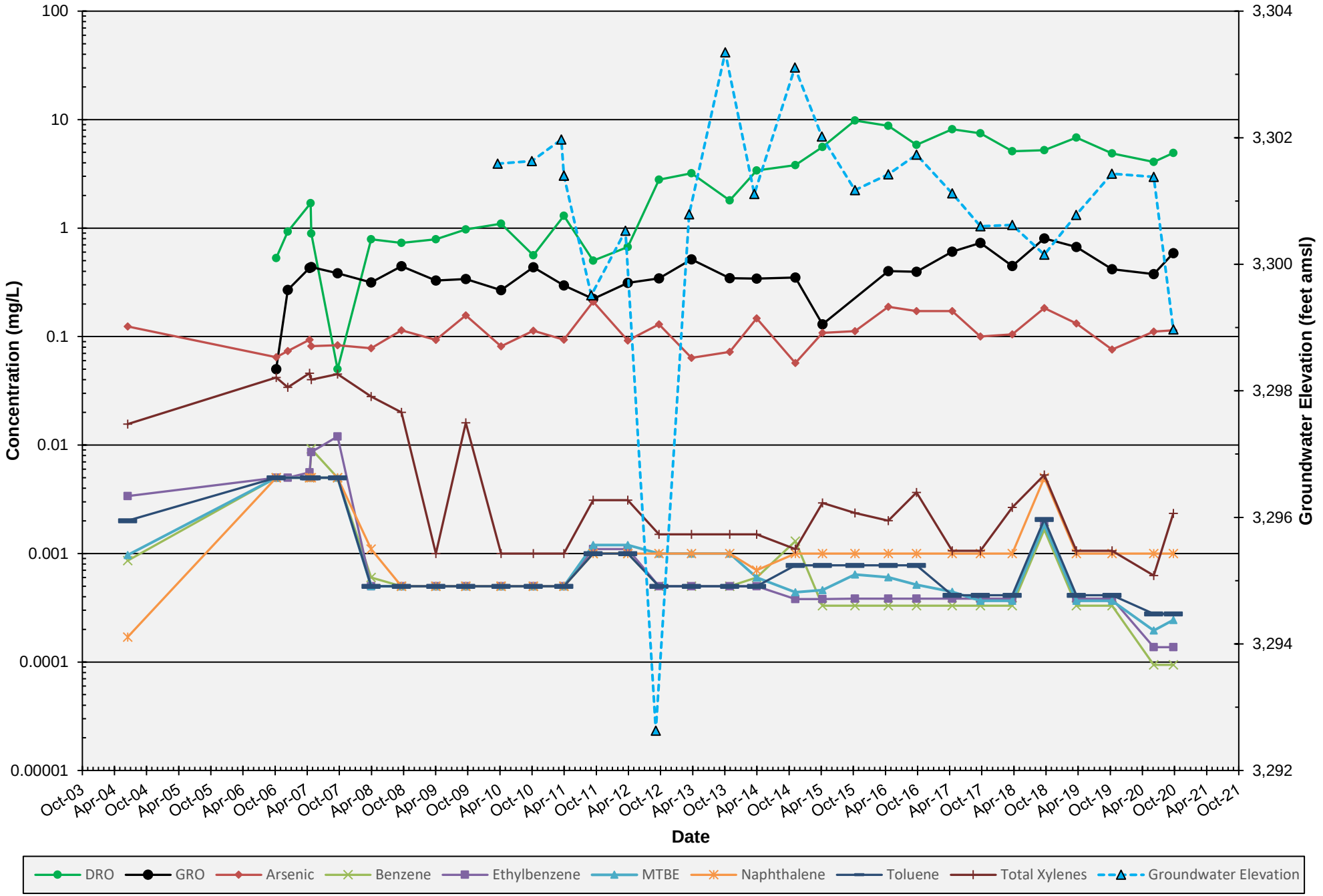
Evaporation Ponds



MW-4A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

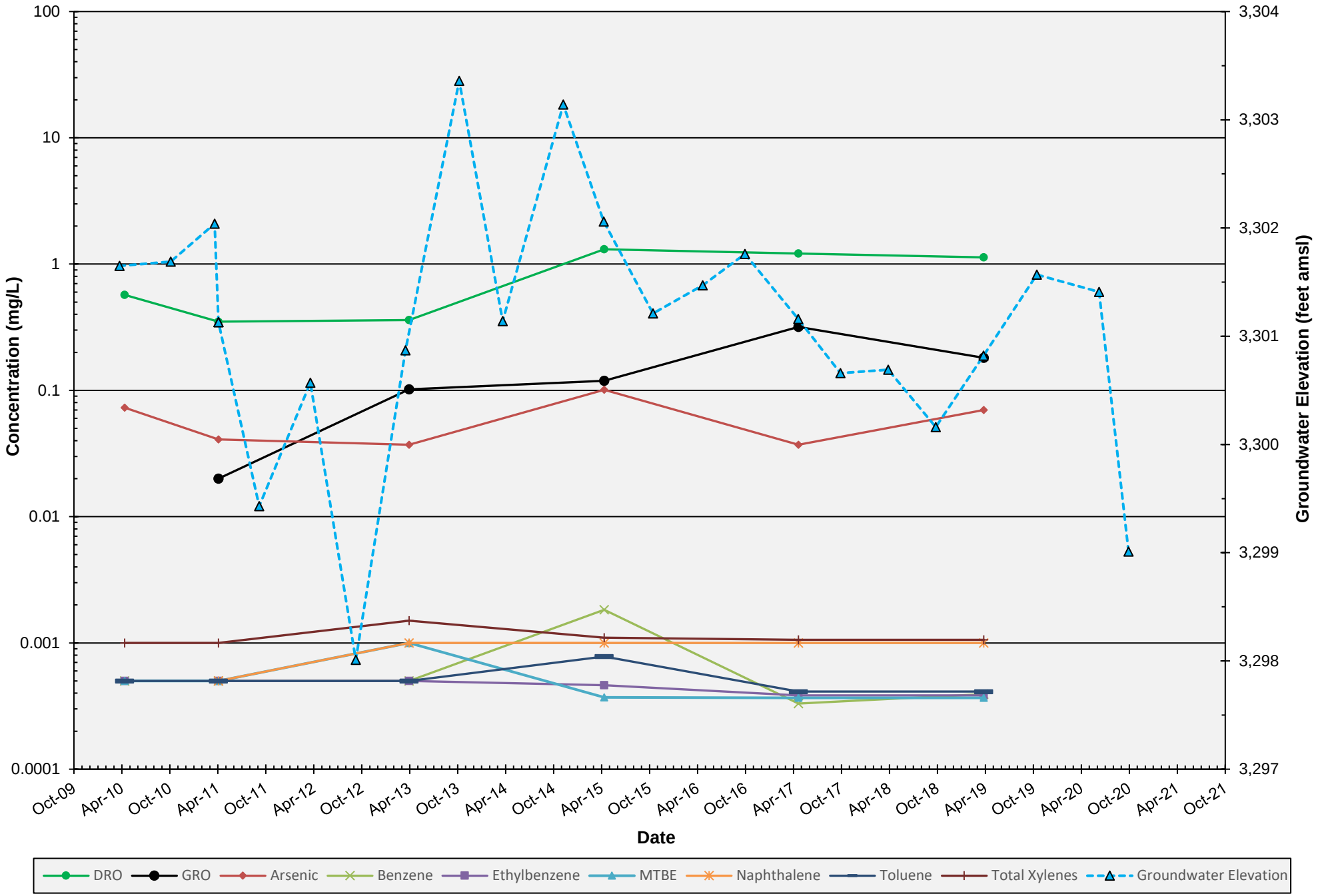
Evaporation Ponds



MW-4B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

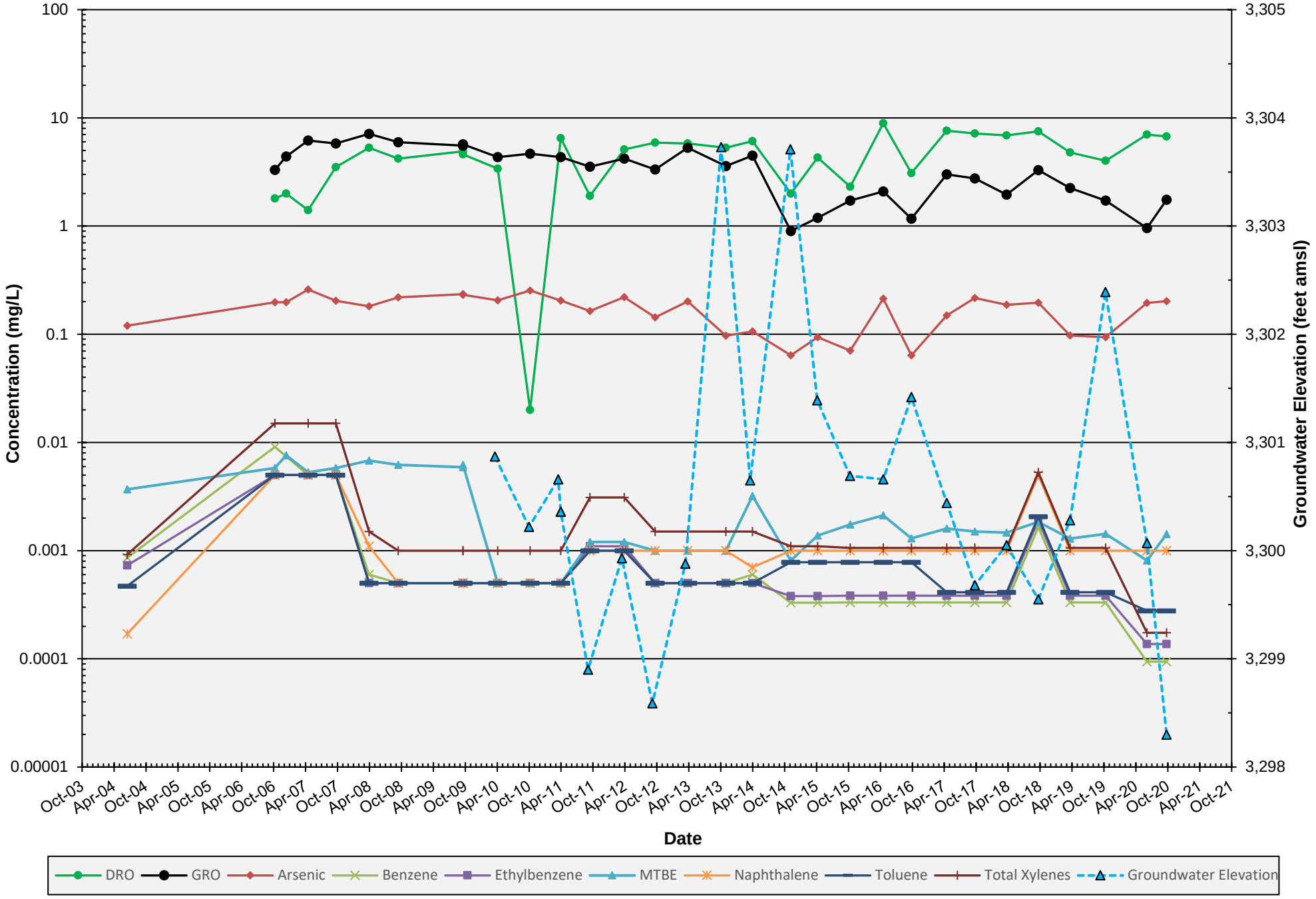
Evaporation Ponds



MW-5A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

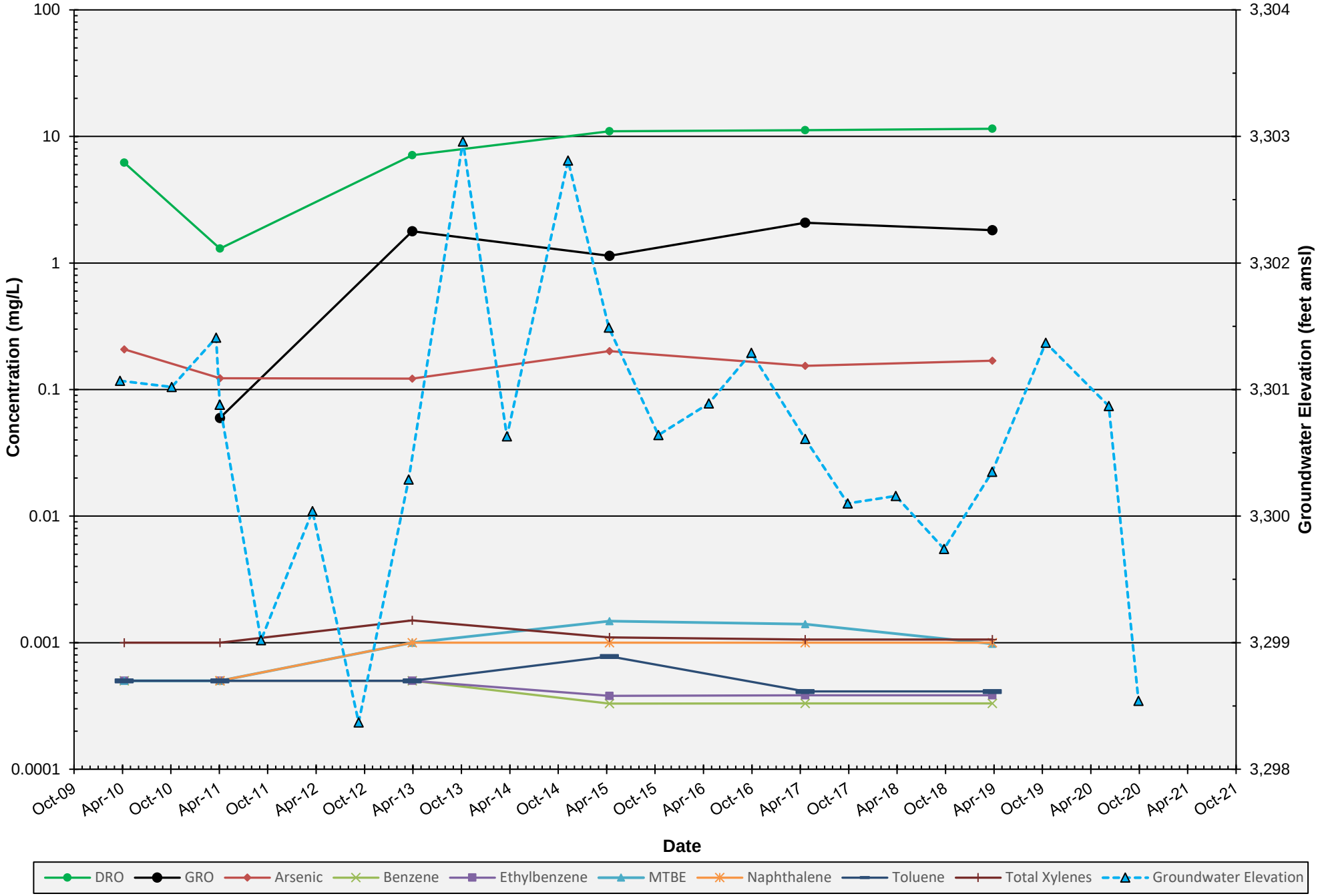
Evaporation Ponds



MW-5B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

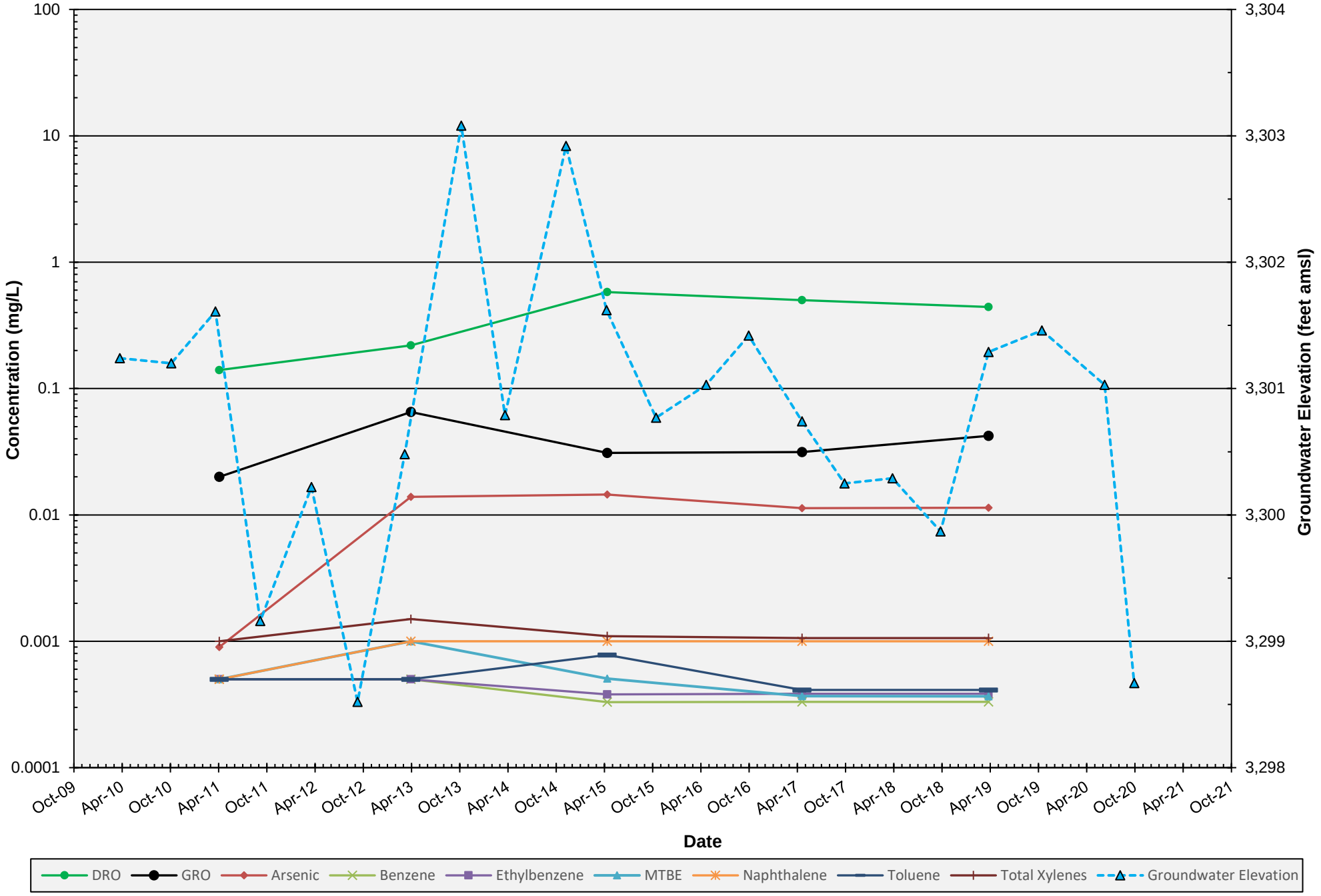
Evaporation Ponds



MW-5C: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

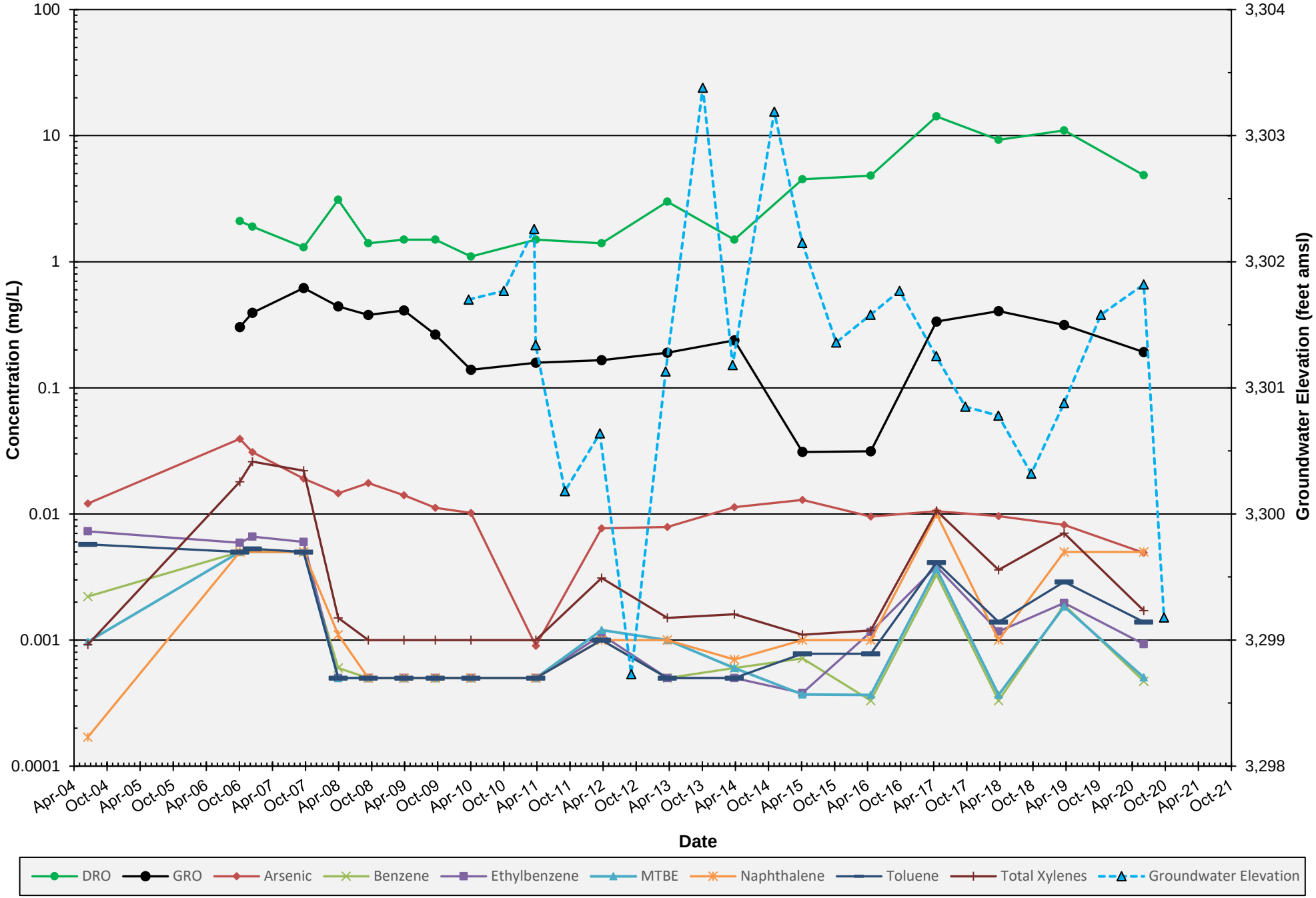
Evaporation Ponds



MW-6A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

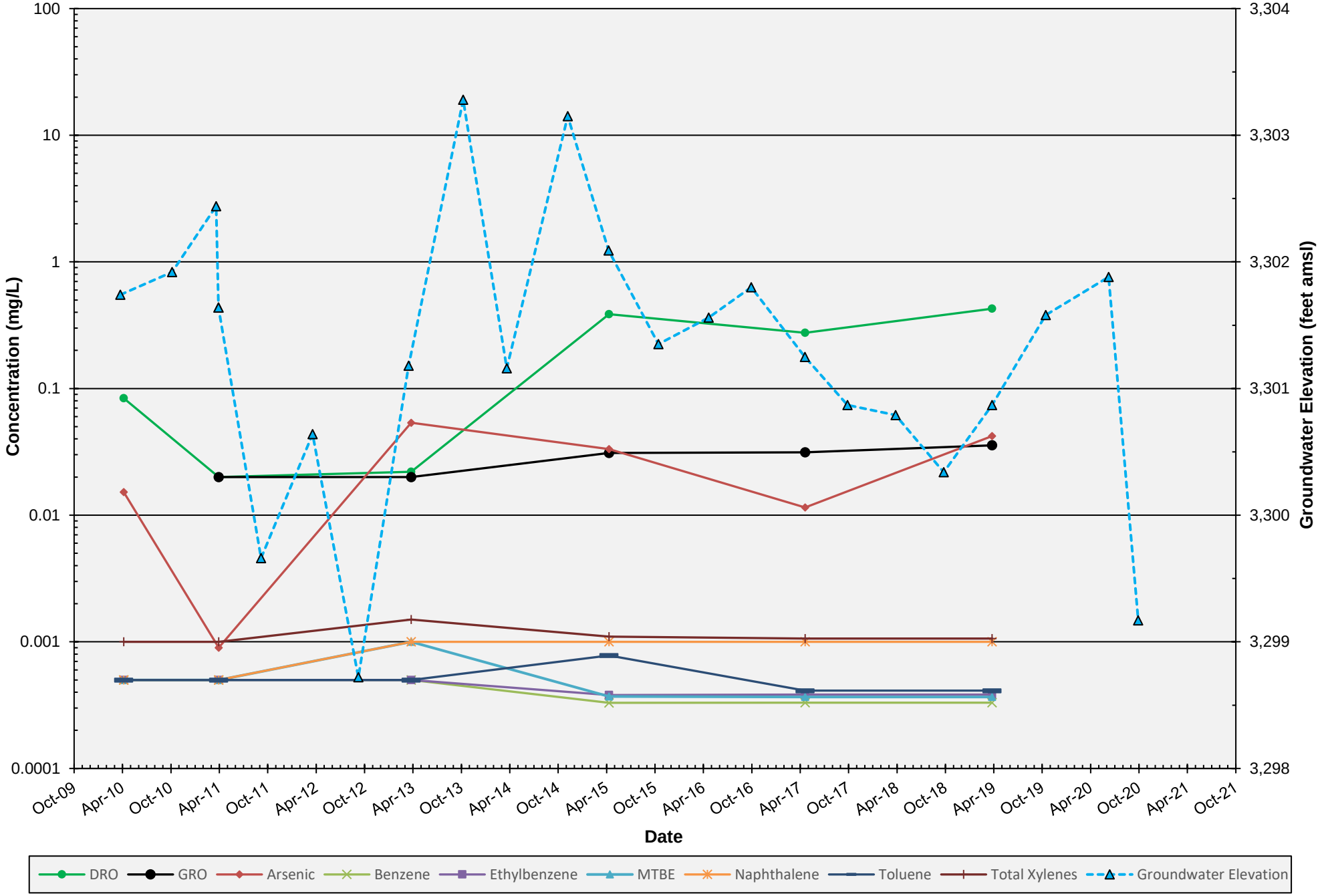
Evaporation Ponds



MW-6B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

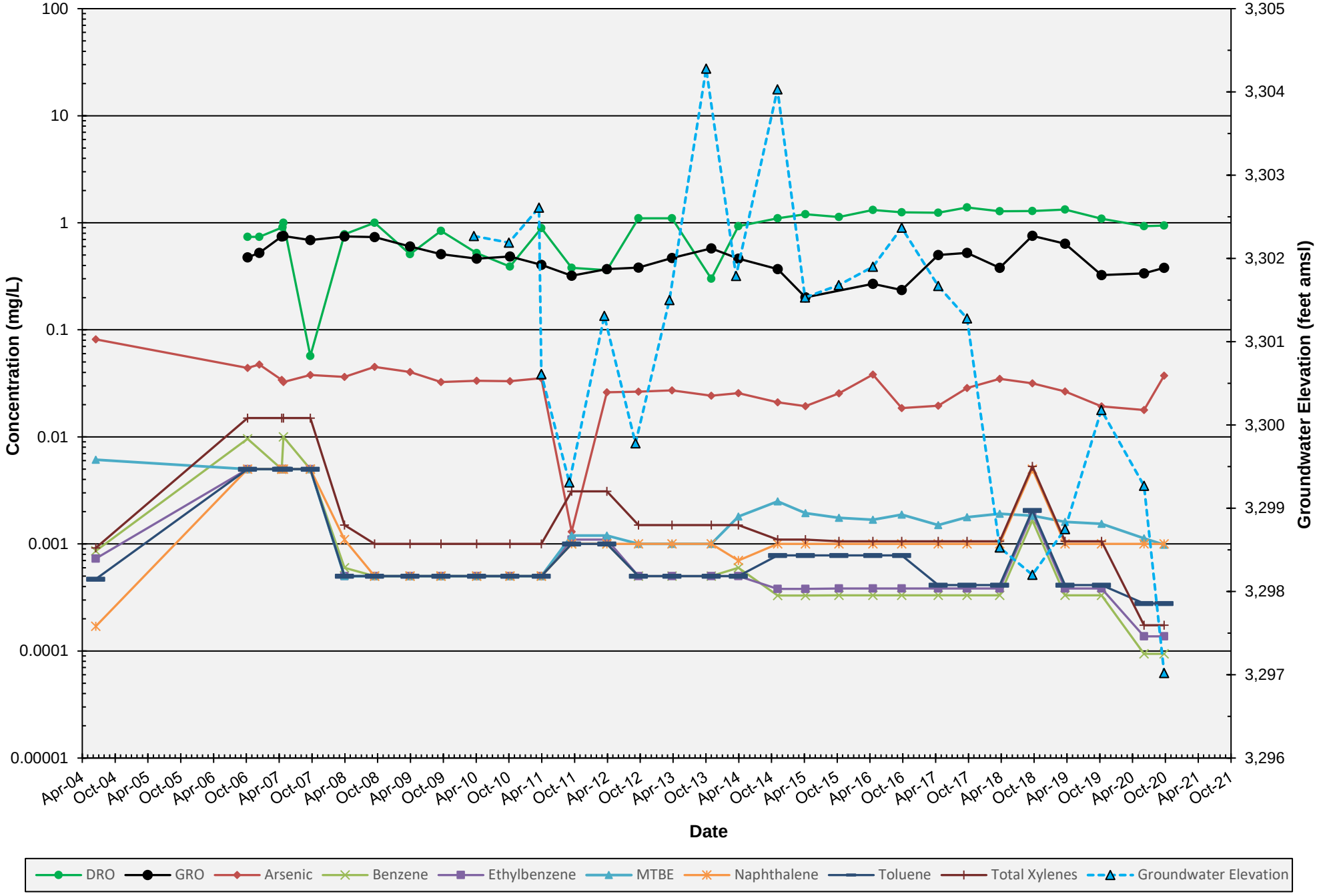
Evaporation Ponds



MW-7A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

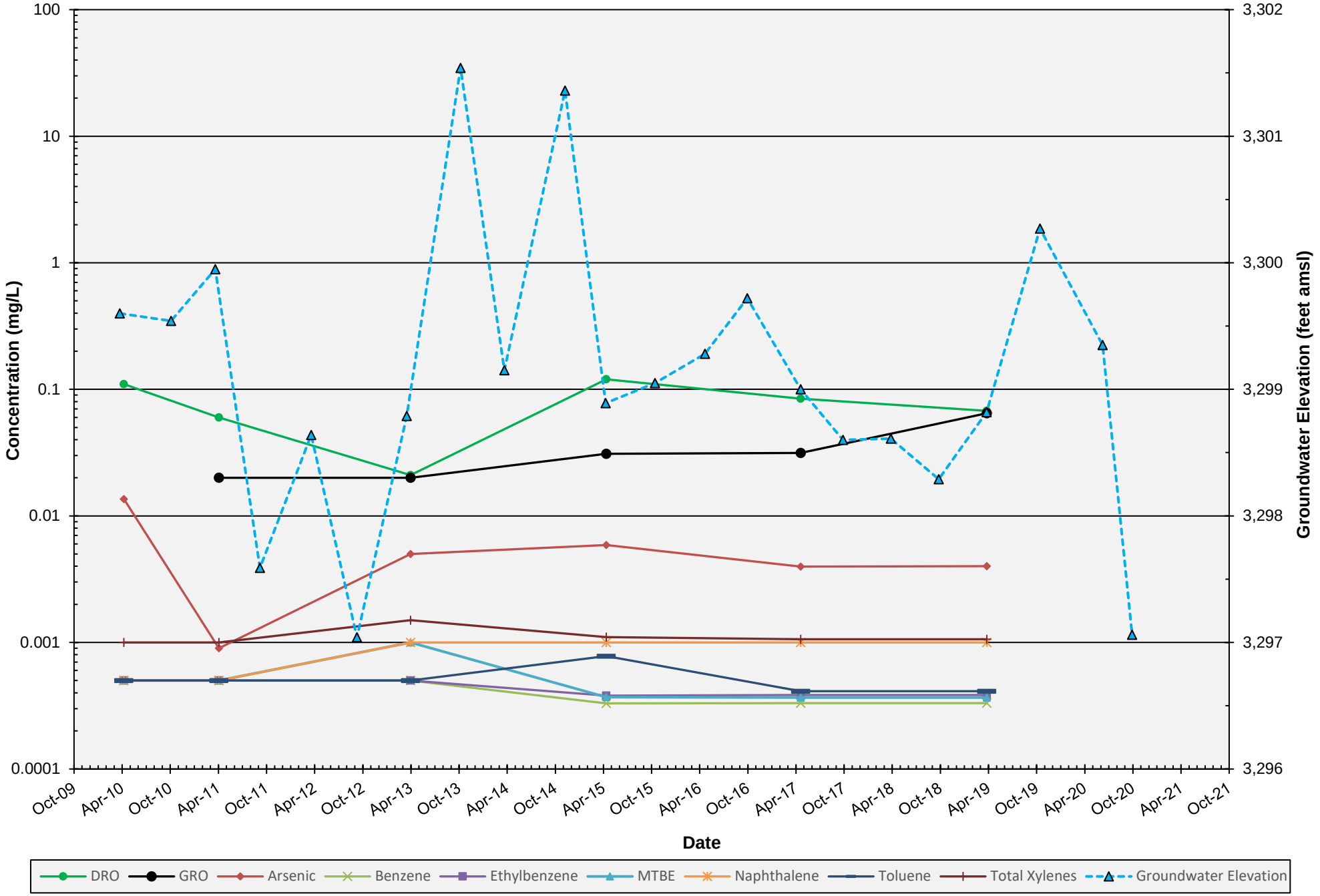
Evaporation Ponds



MW-7B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

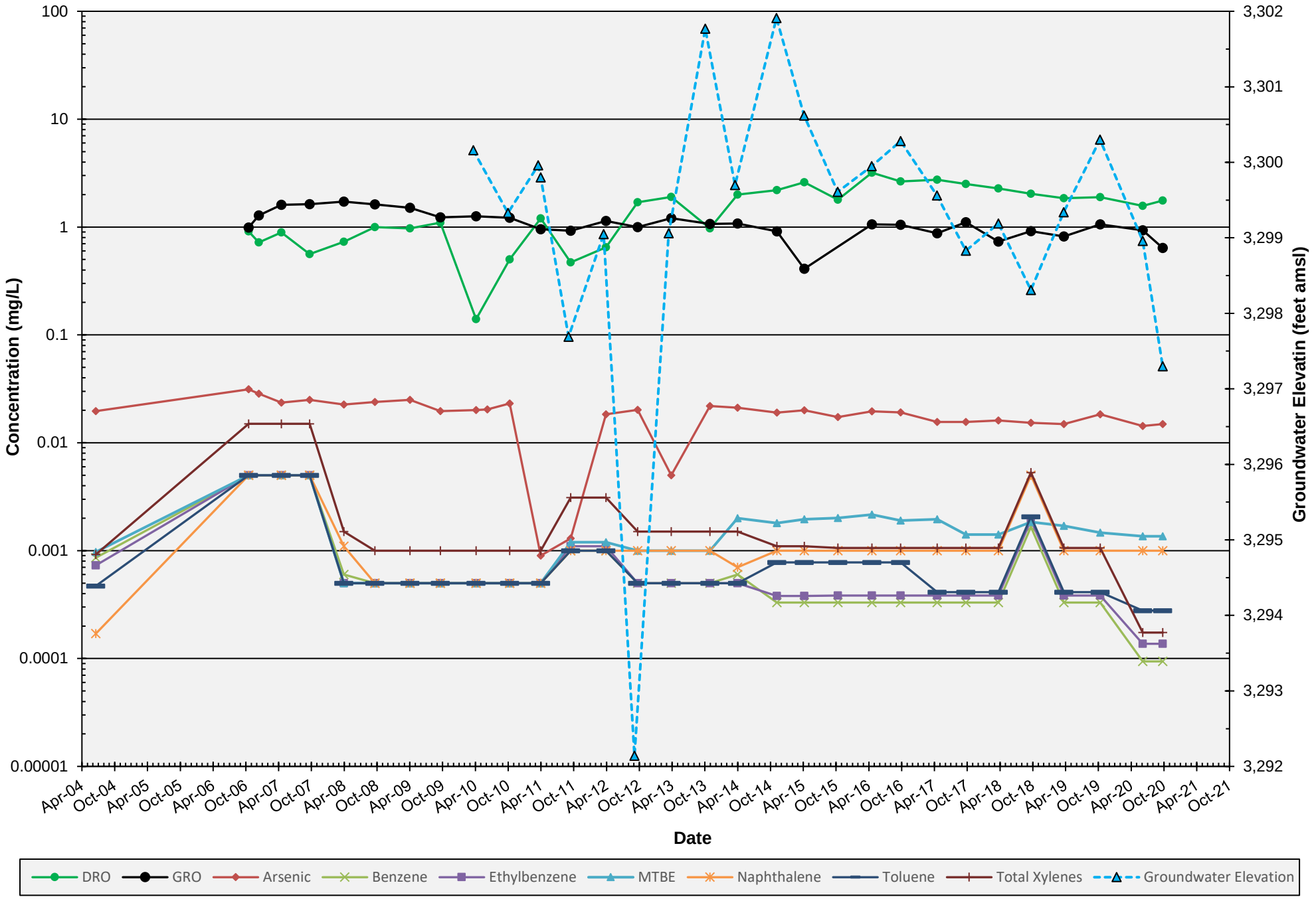
Evaporation Ponds



MW-10: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

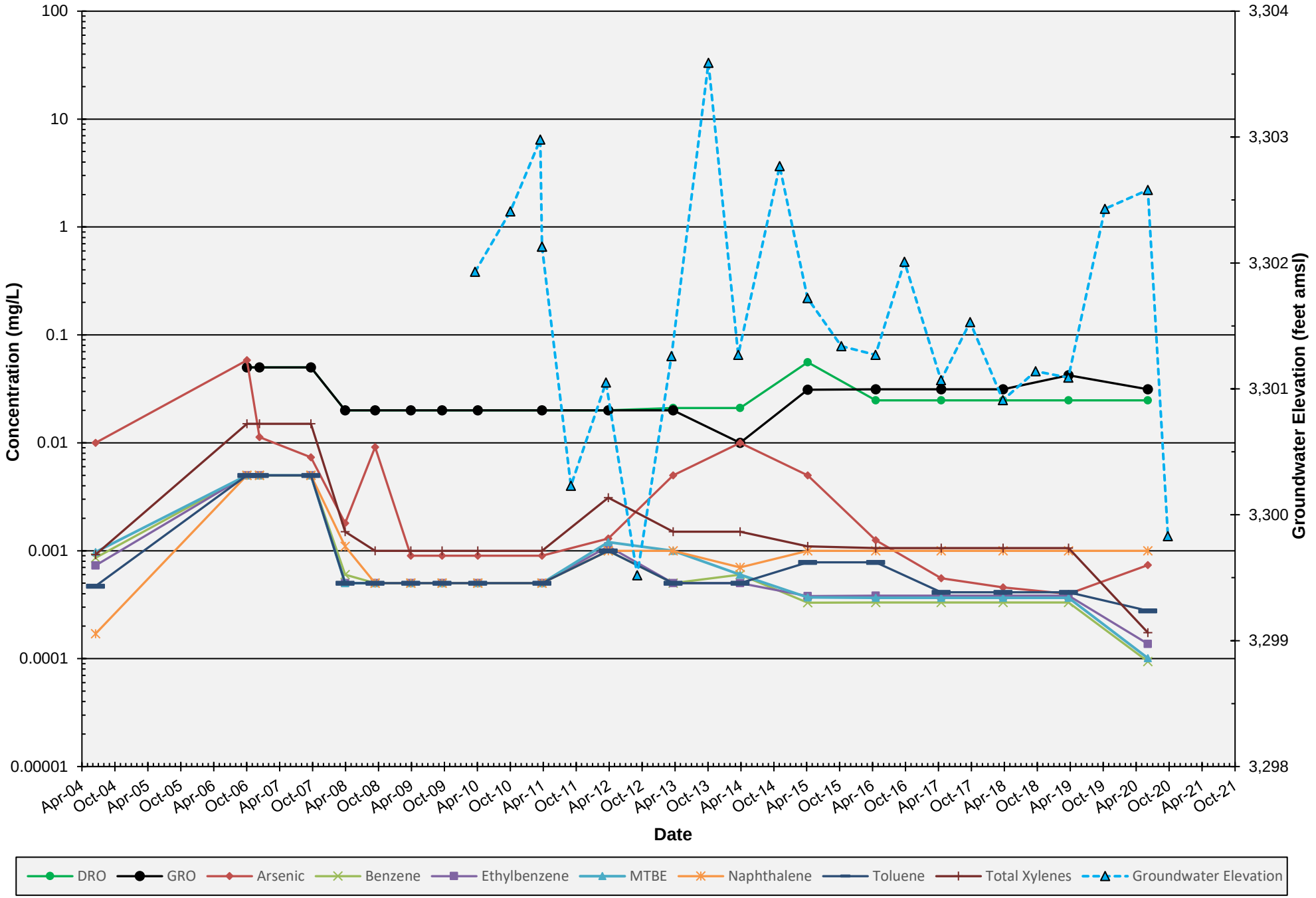
Evaporation Ponds



MW-11A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

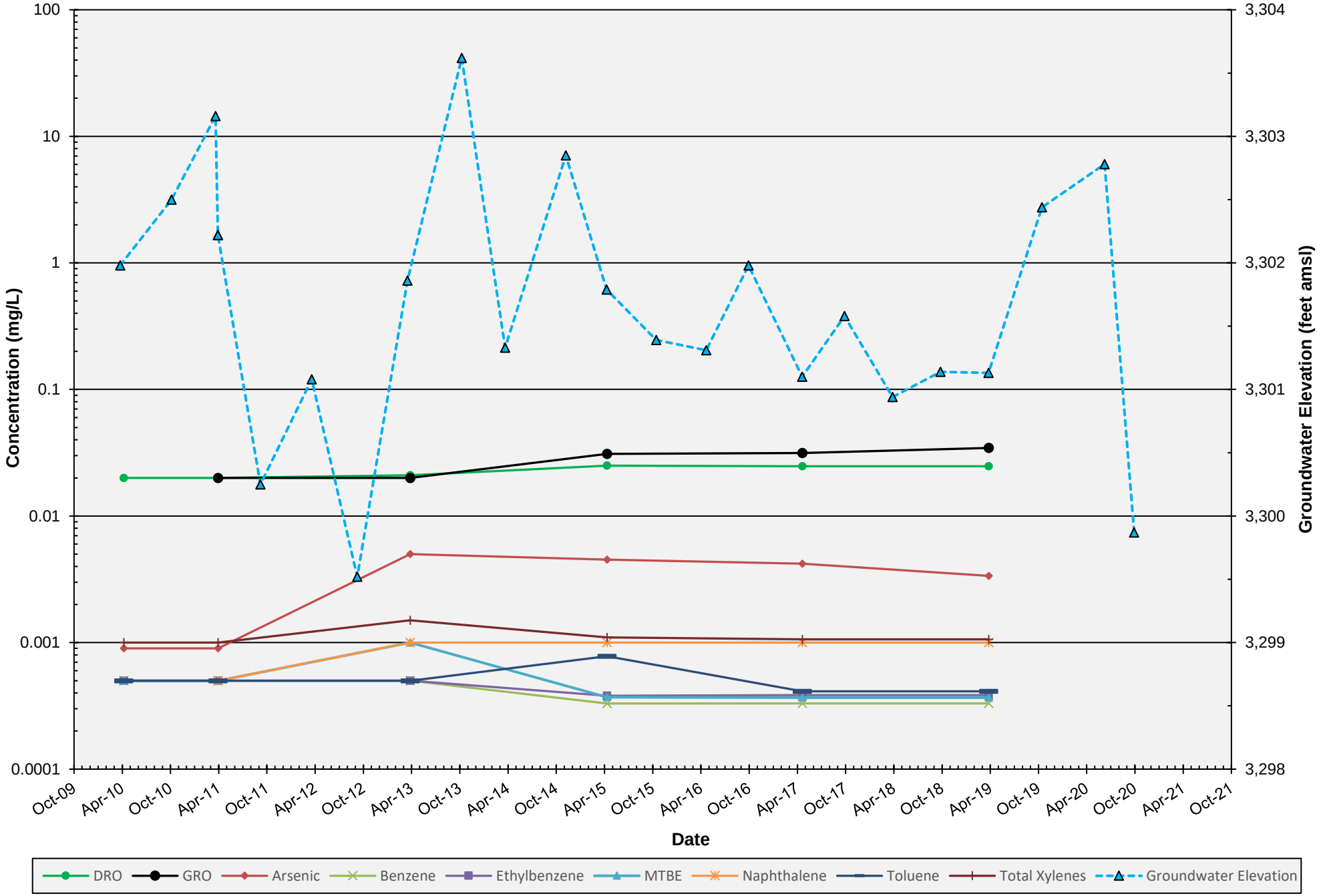
Evaporation Ponds



MW-11B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

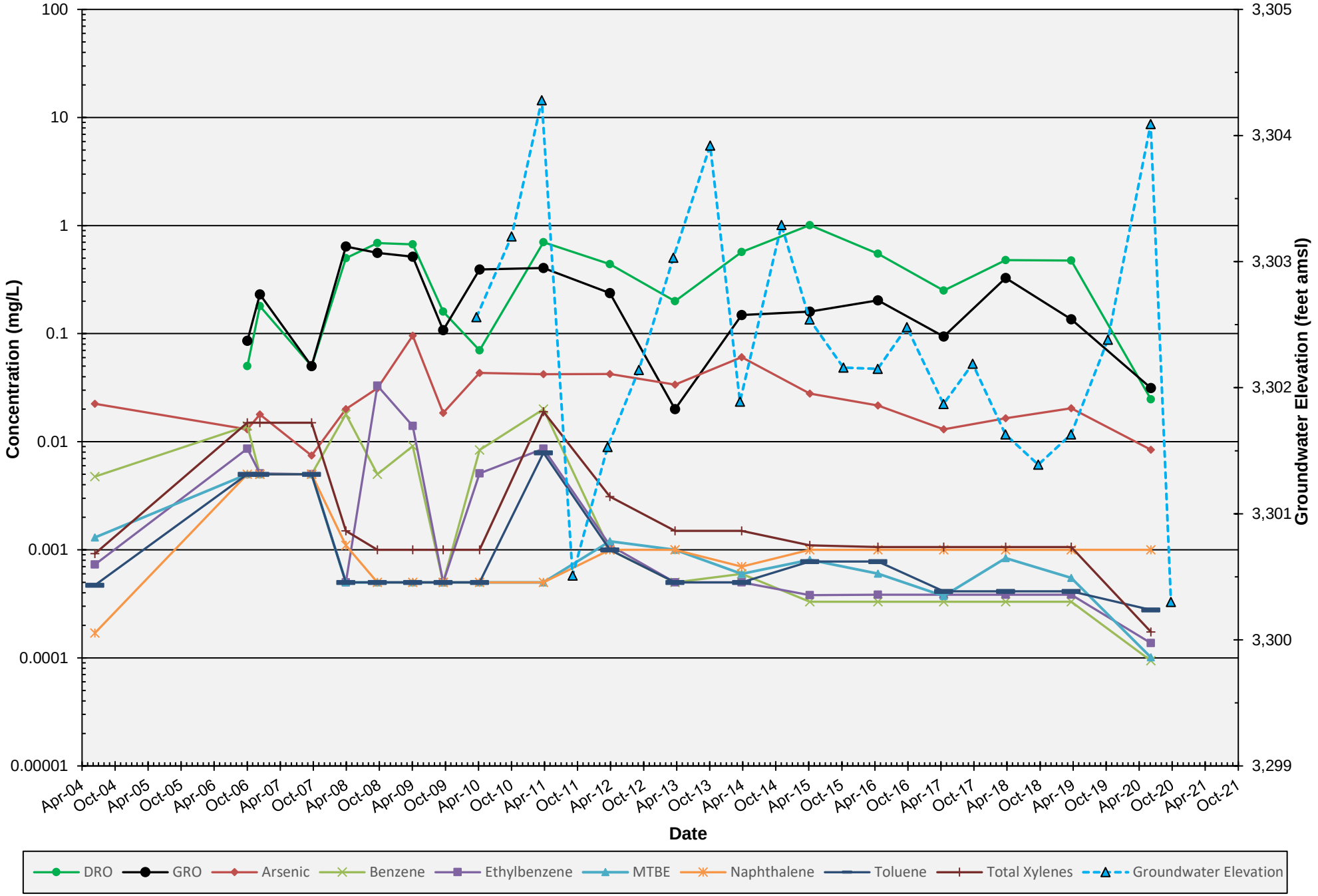
Evaporation Ponds



MW-15: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

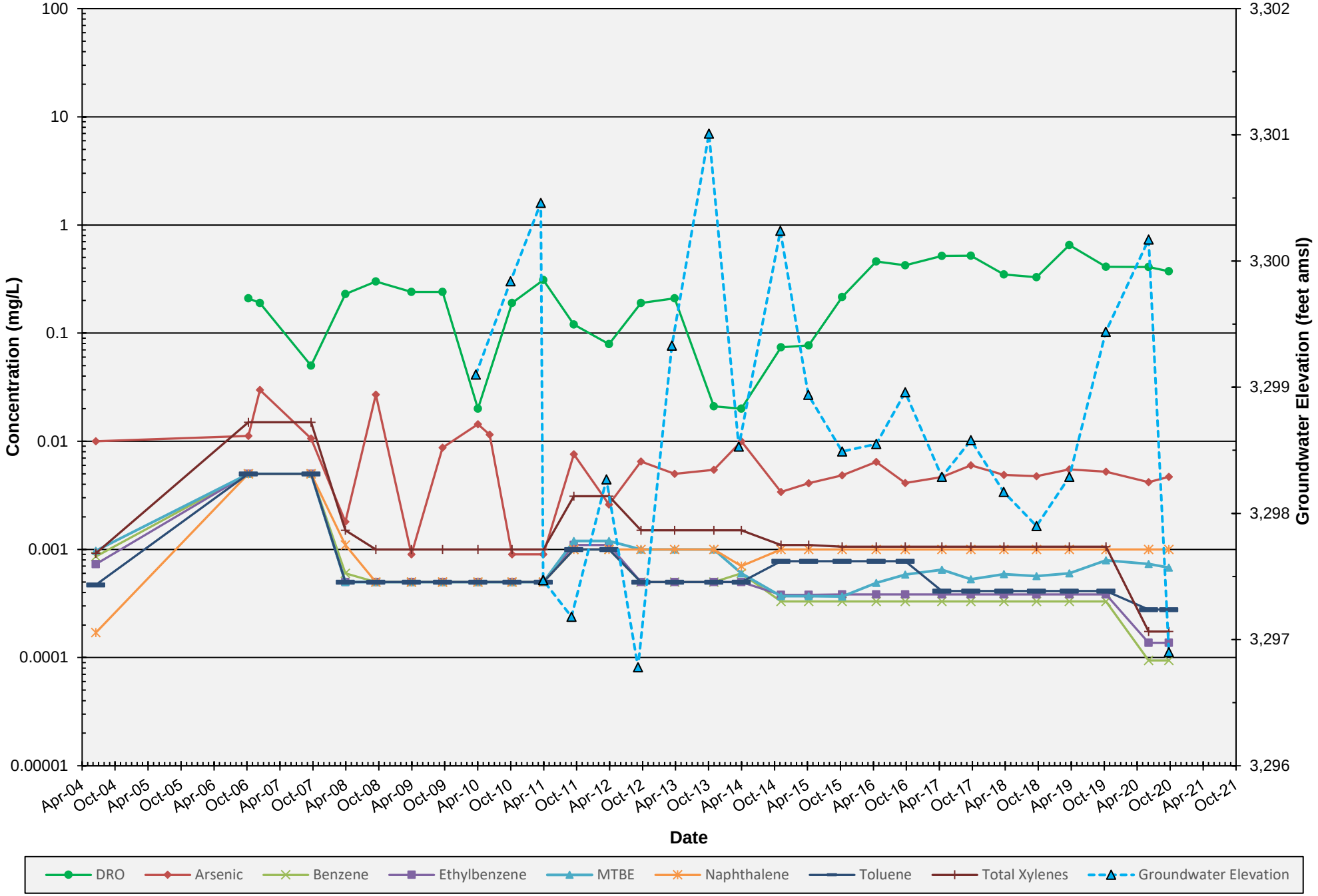
Evaporation Ponds



MW-18A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

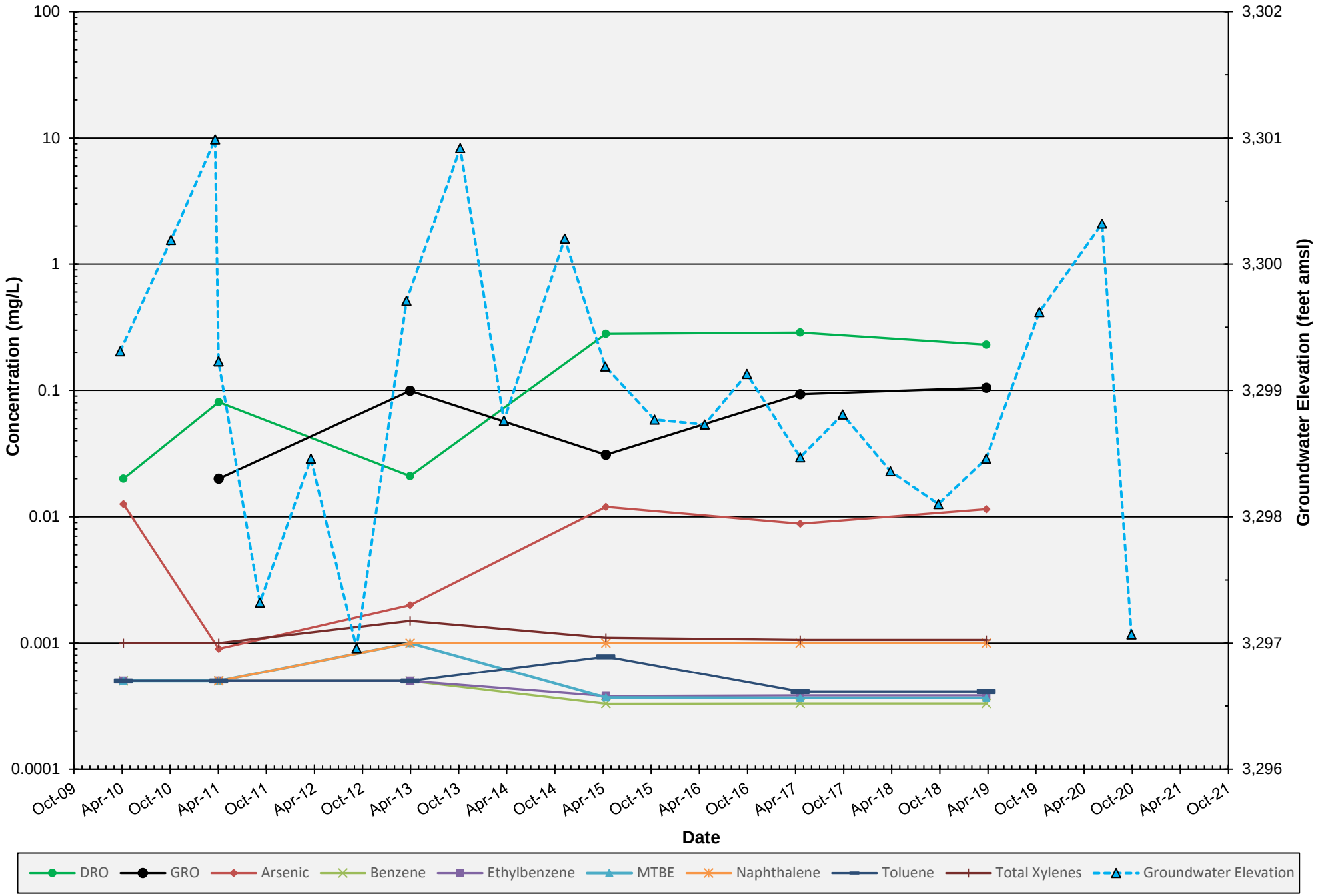
Evaporation Ponds



MW-18B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

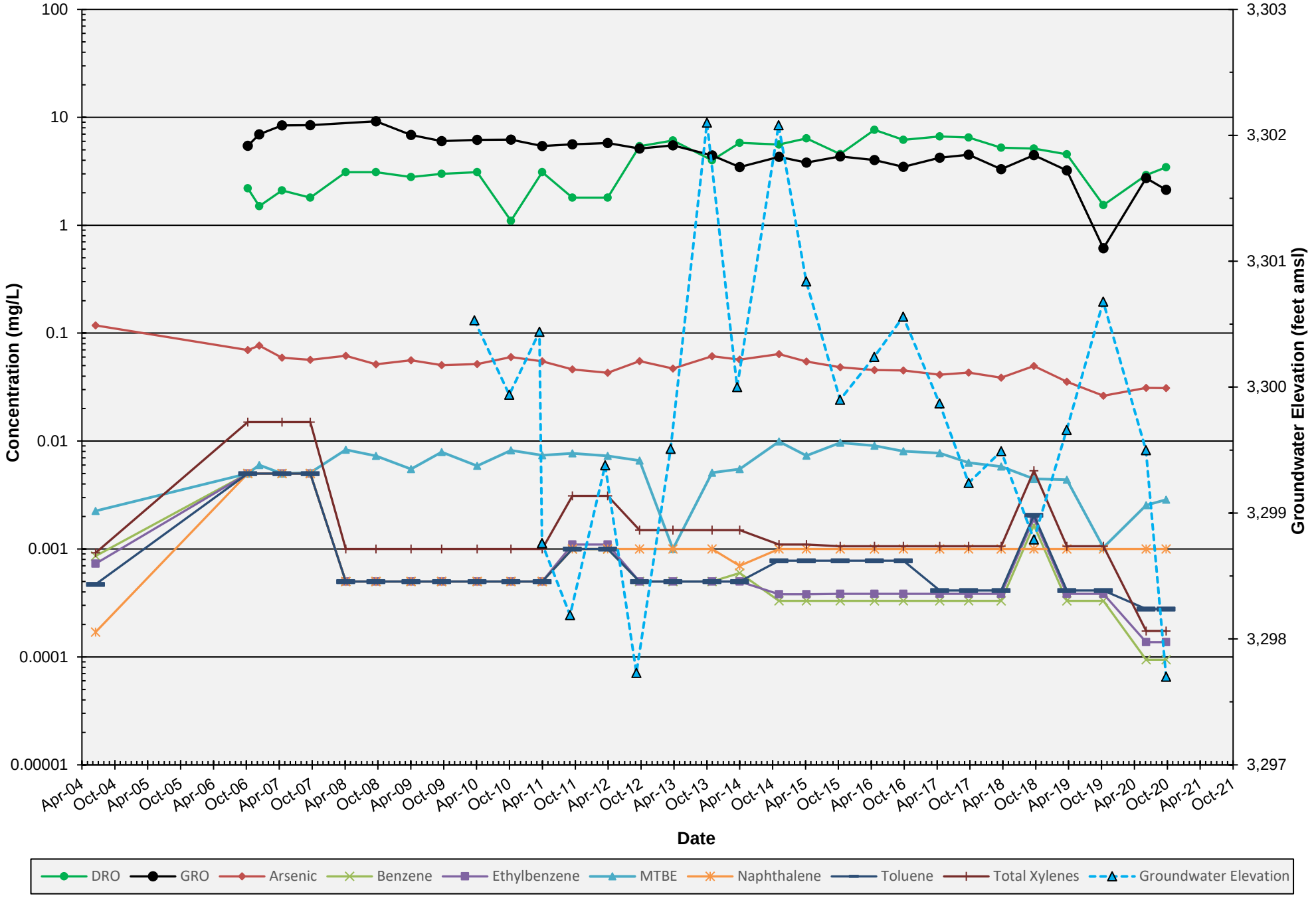
Evaporation Ponds



MW-22A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

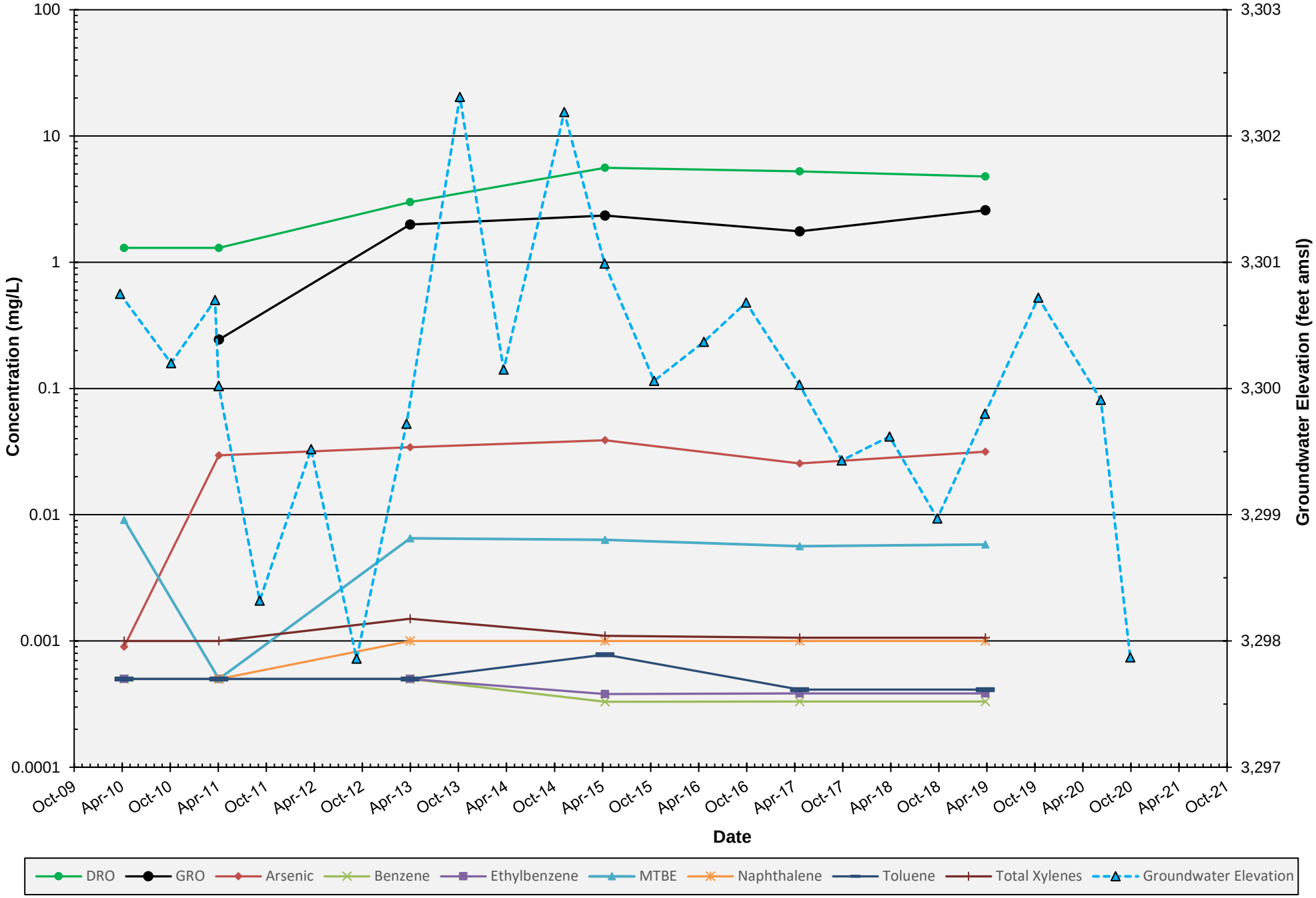
Evaporation Ponds



MW-22B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

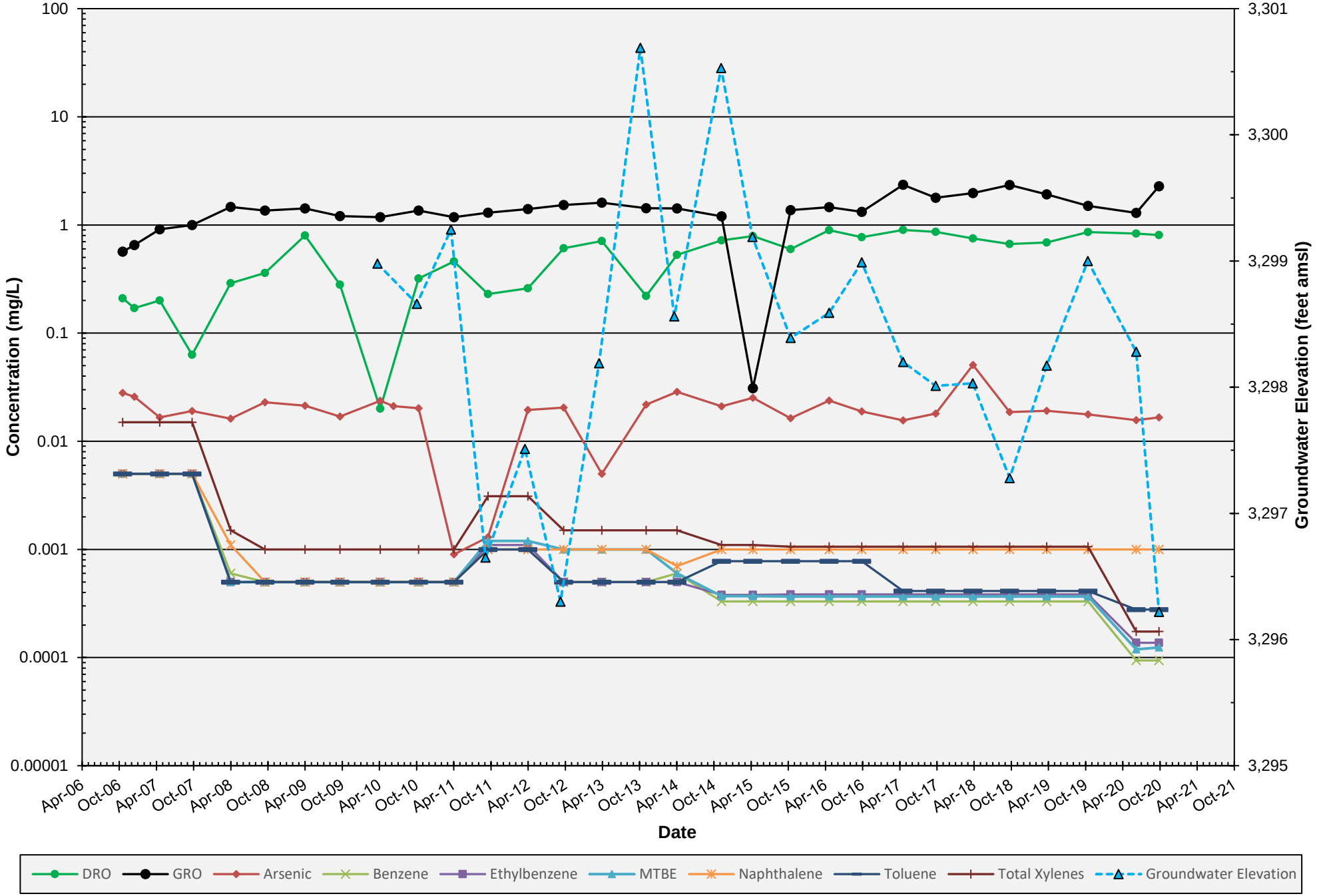
Evaporation Ponds



MW-70: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

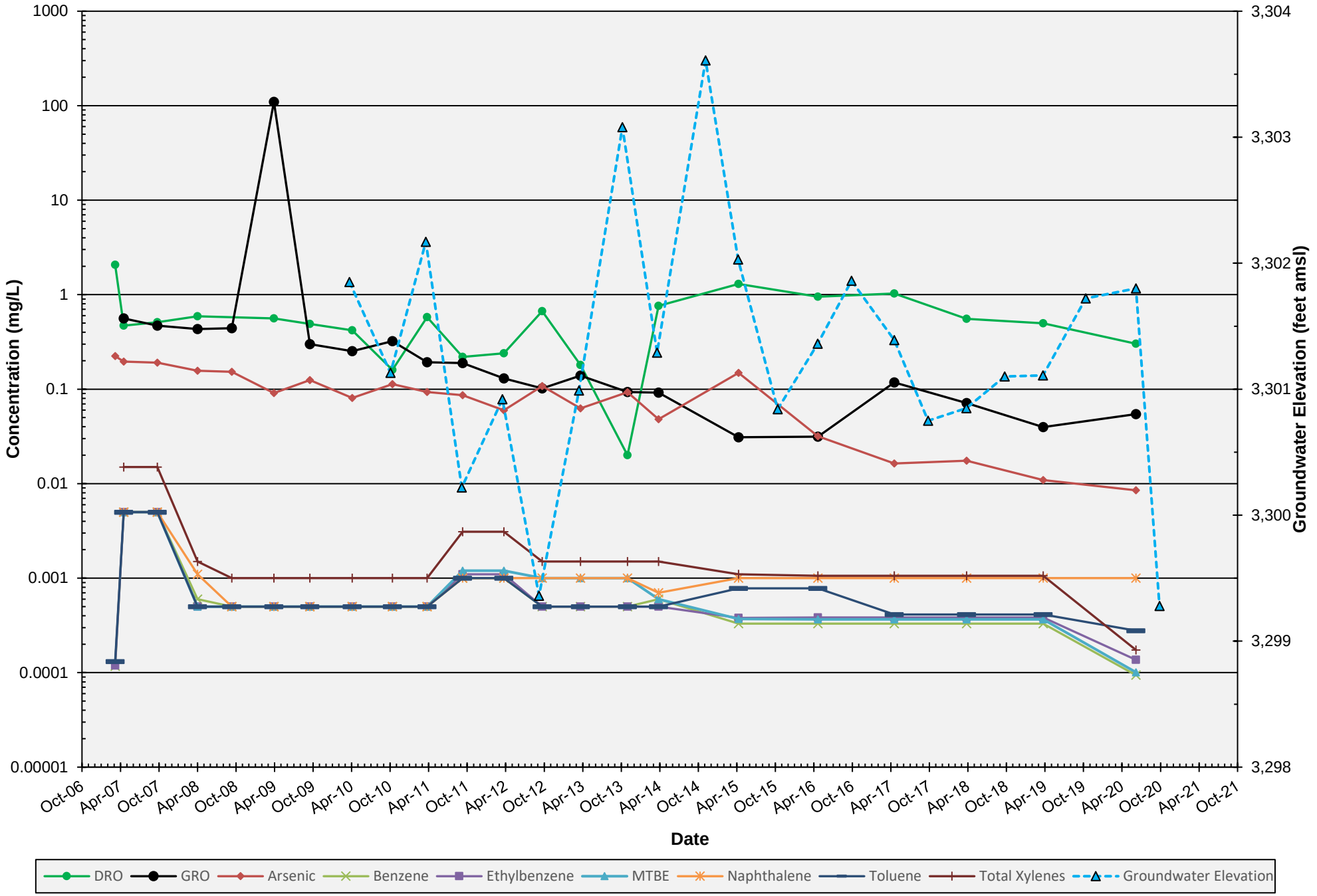
Evaporation Ponds



MW-72: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

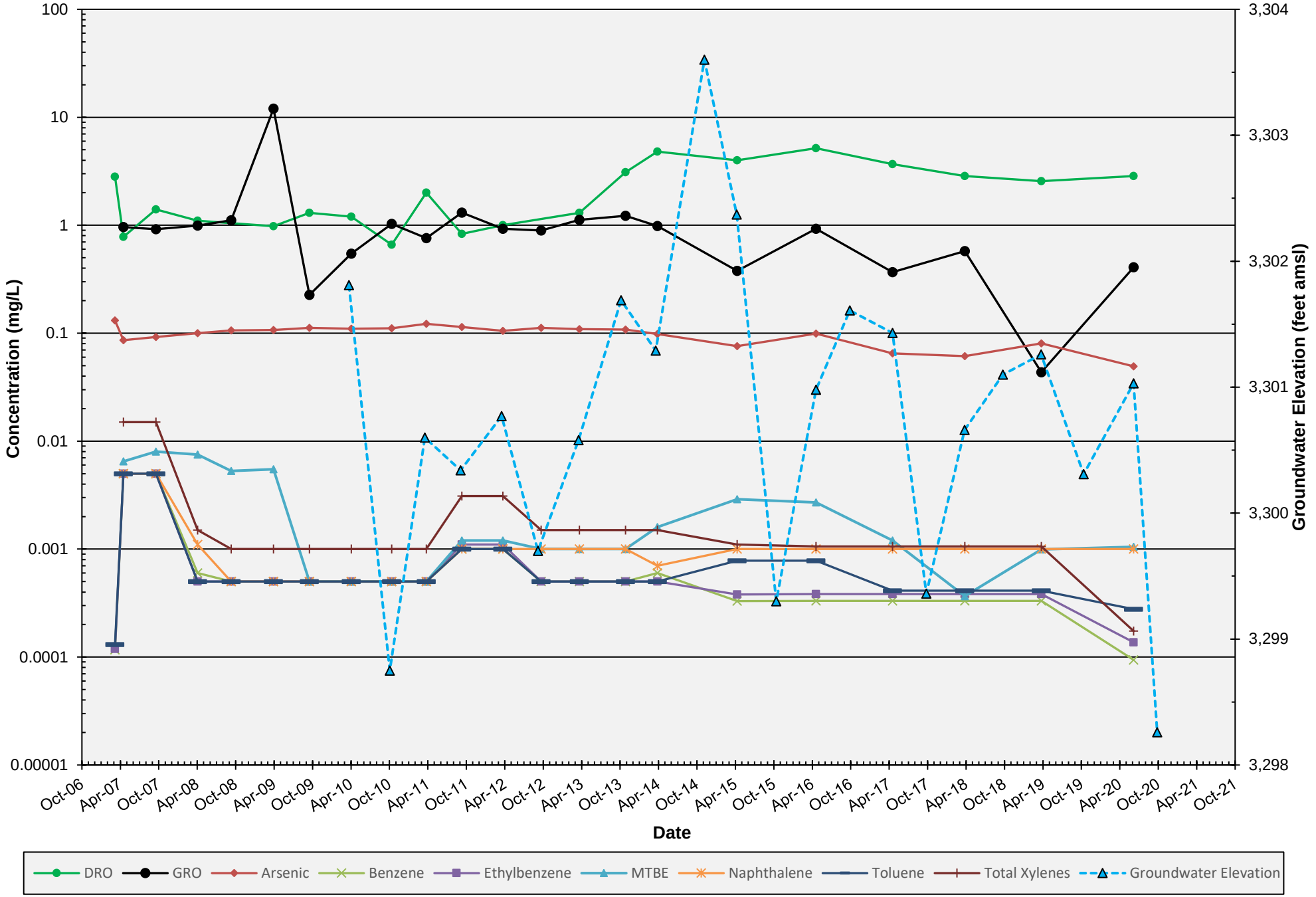
Evaporation Ponds



MW-73: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

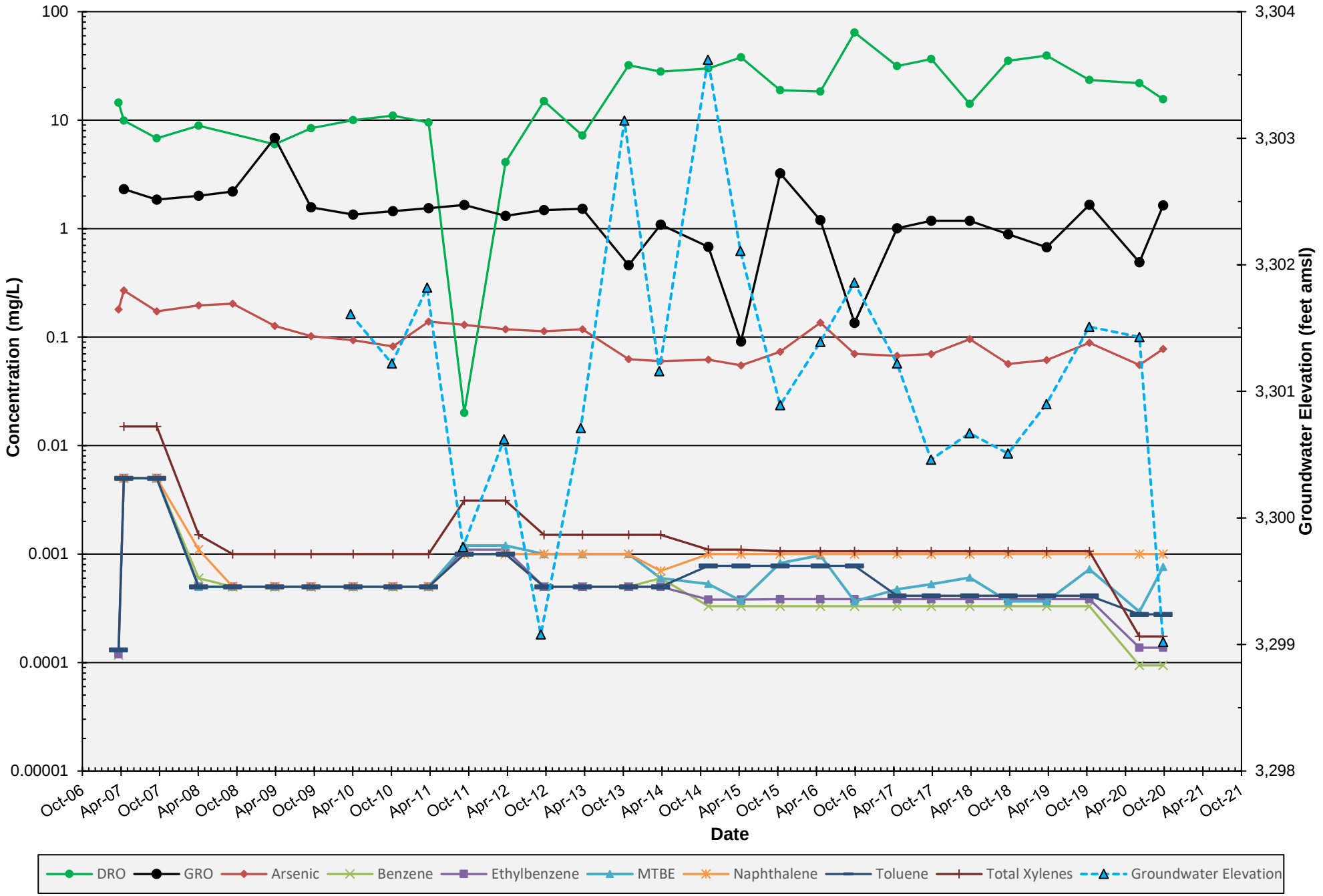
Evaporation Ponds



MW-74: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

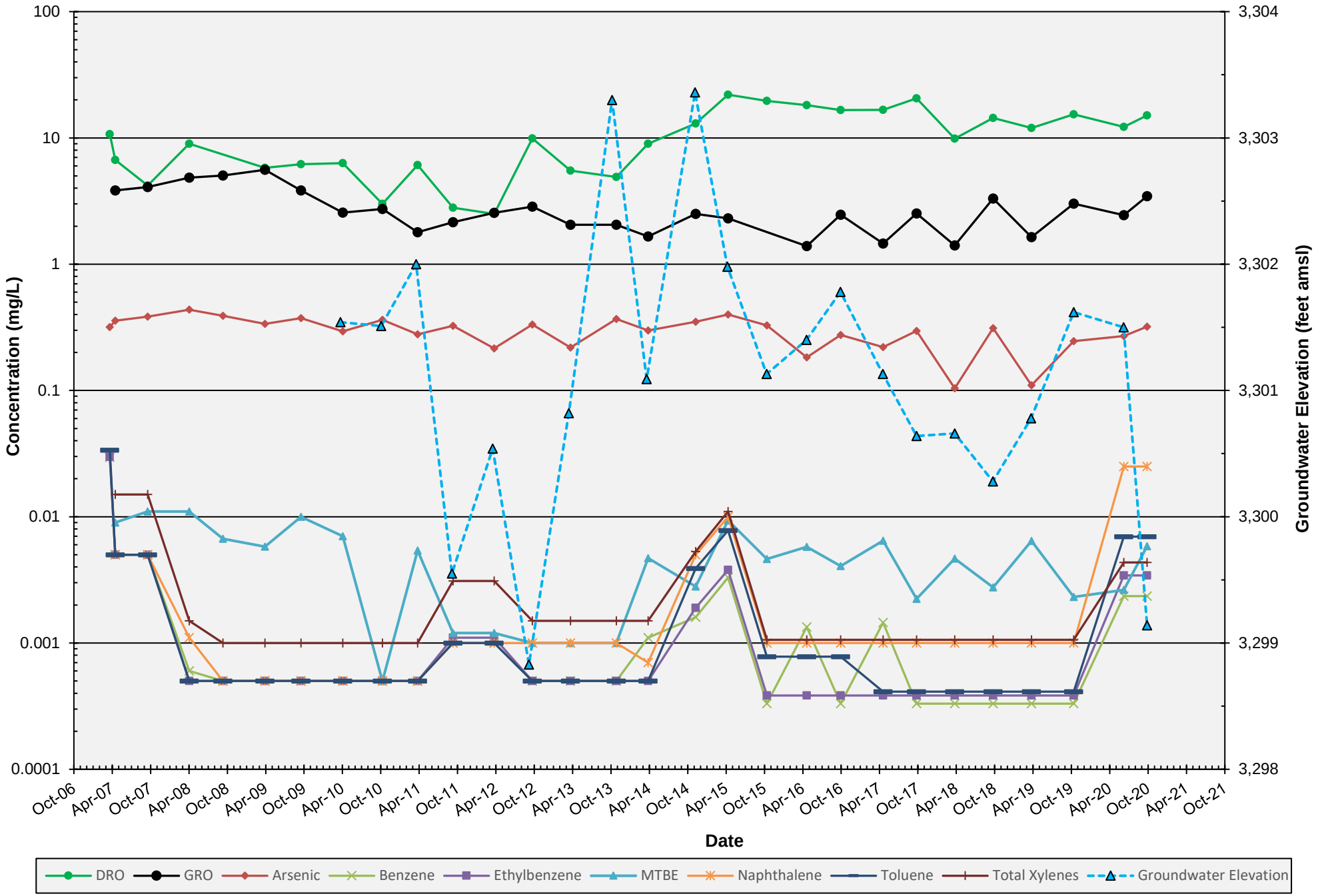
Evaporation Ponds



MW-75: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

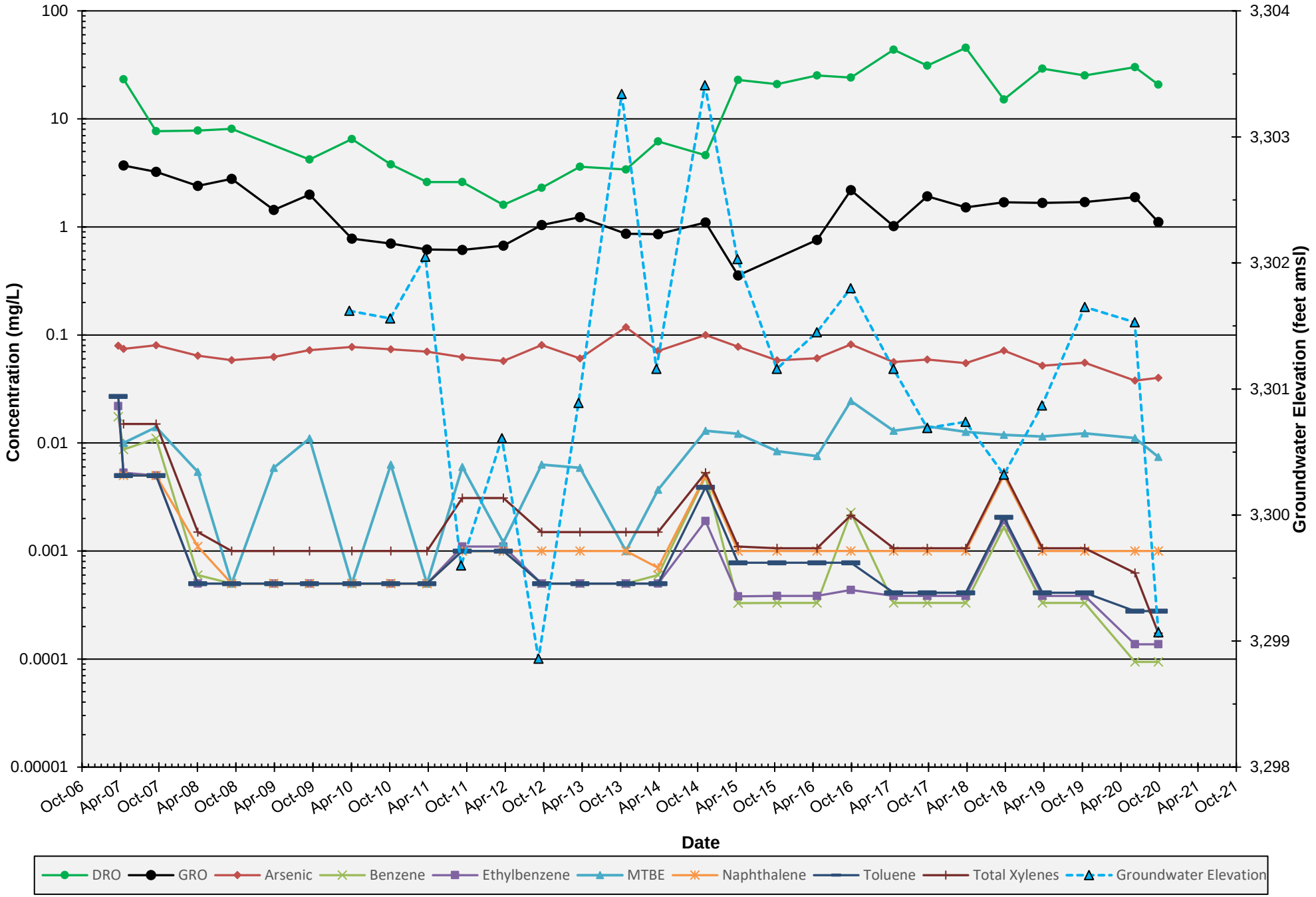
Evaporation Ponds



MW-76: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

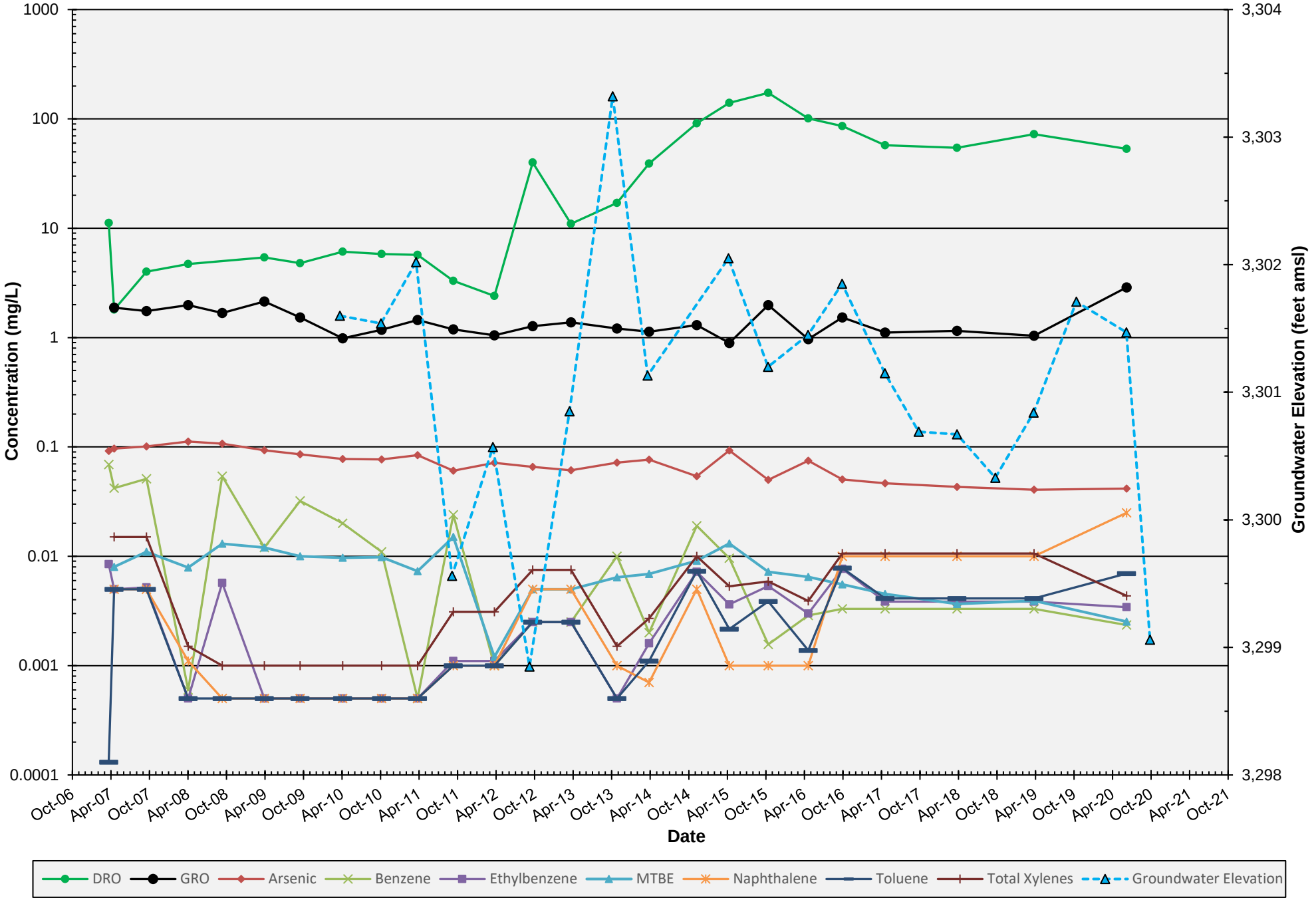
Evaporation Ponds



MW-77: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

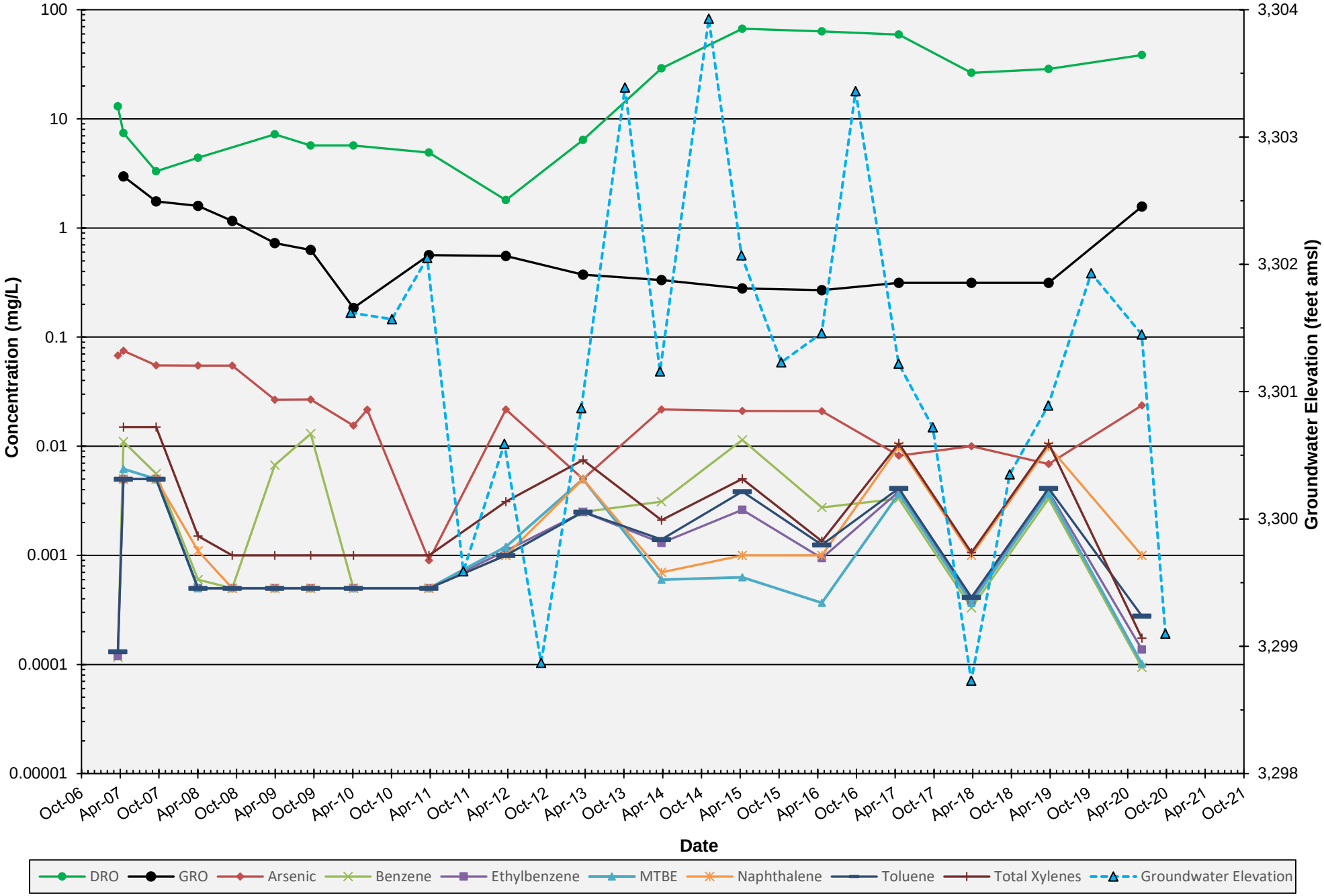
Evaporation Ponds



MW-78: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

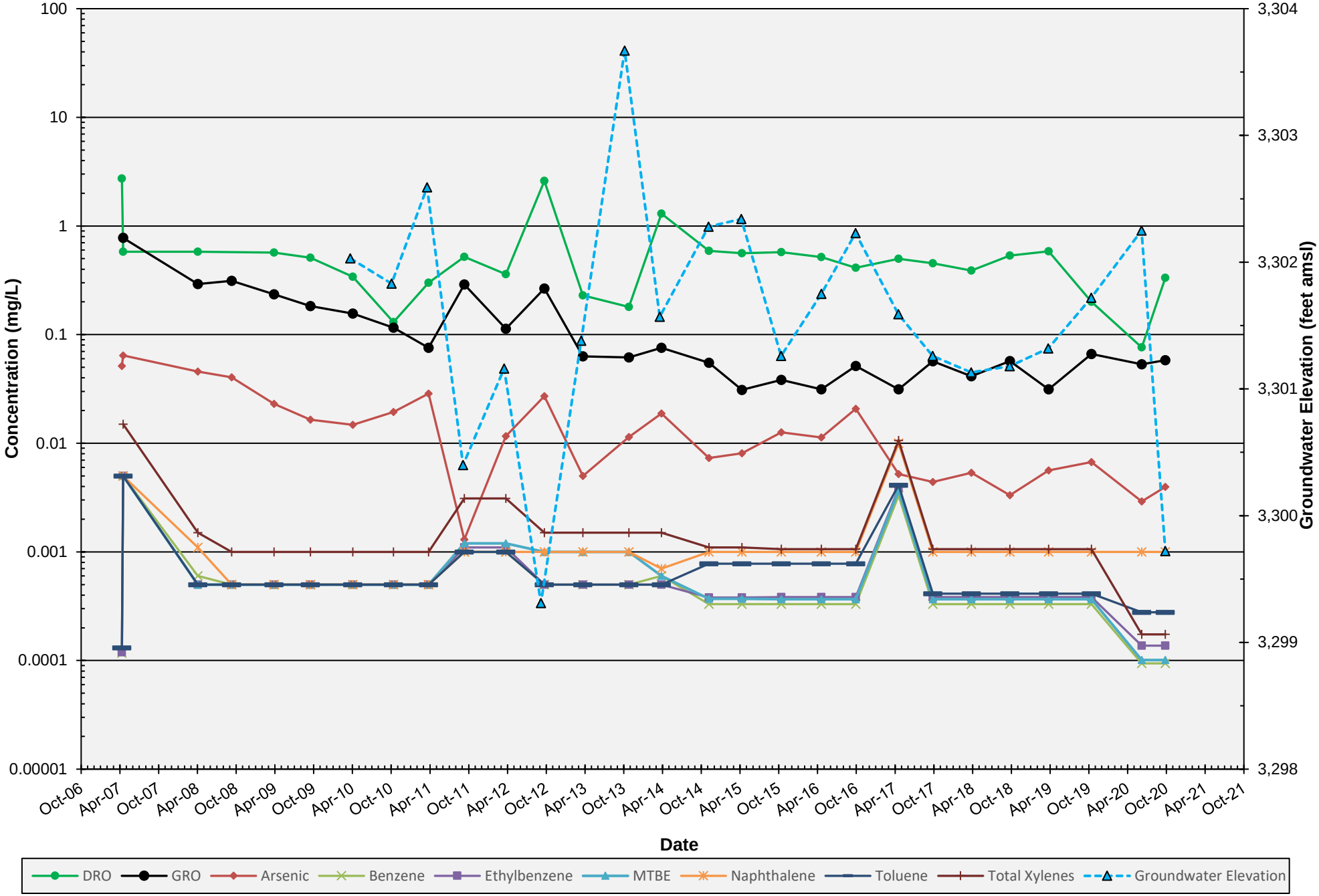
Evaporation Ponds



MW-79: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

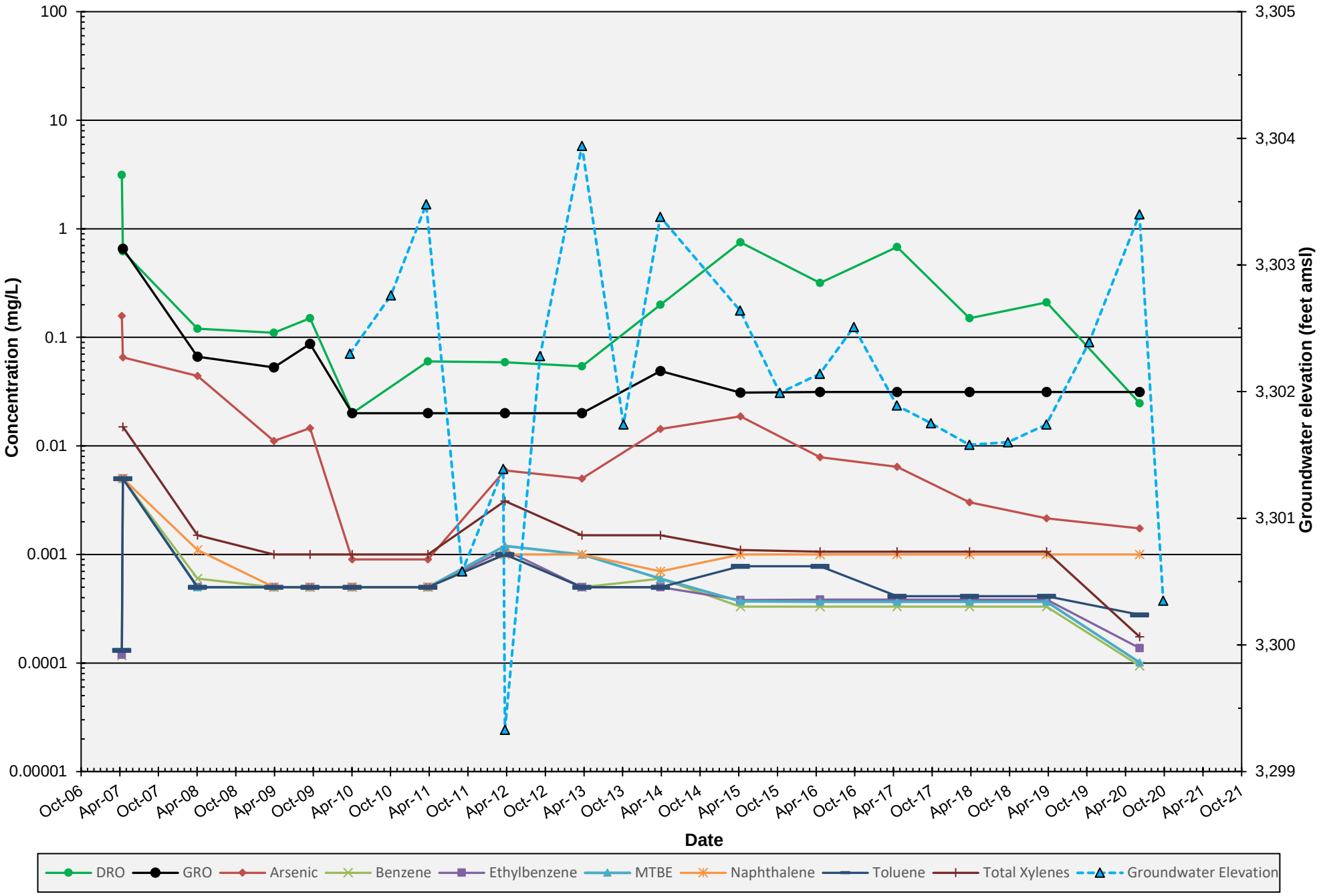
Evaporation Ponds



MW-80: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

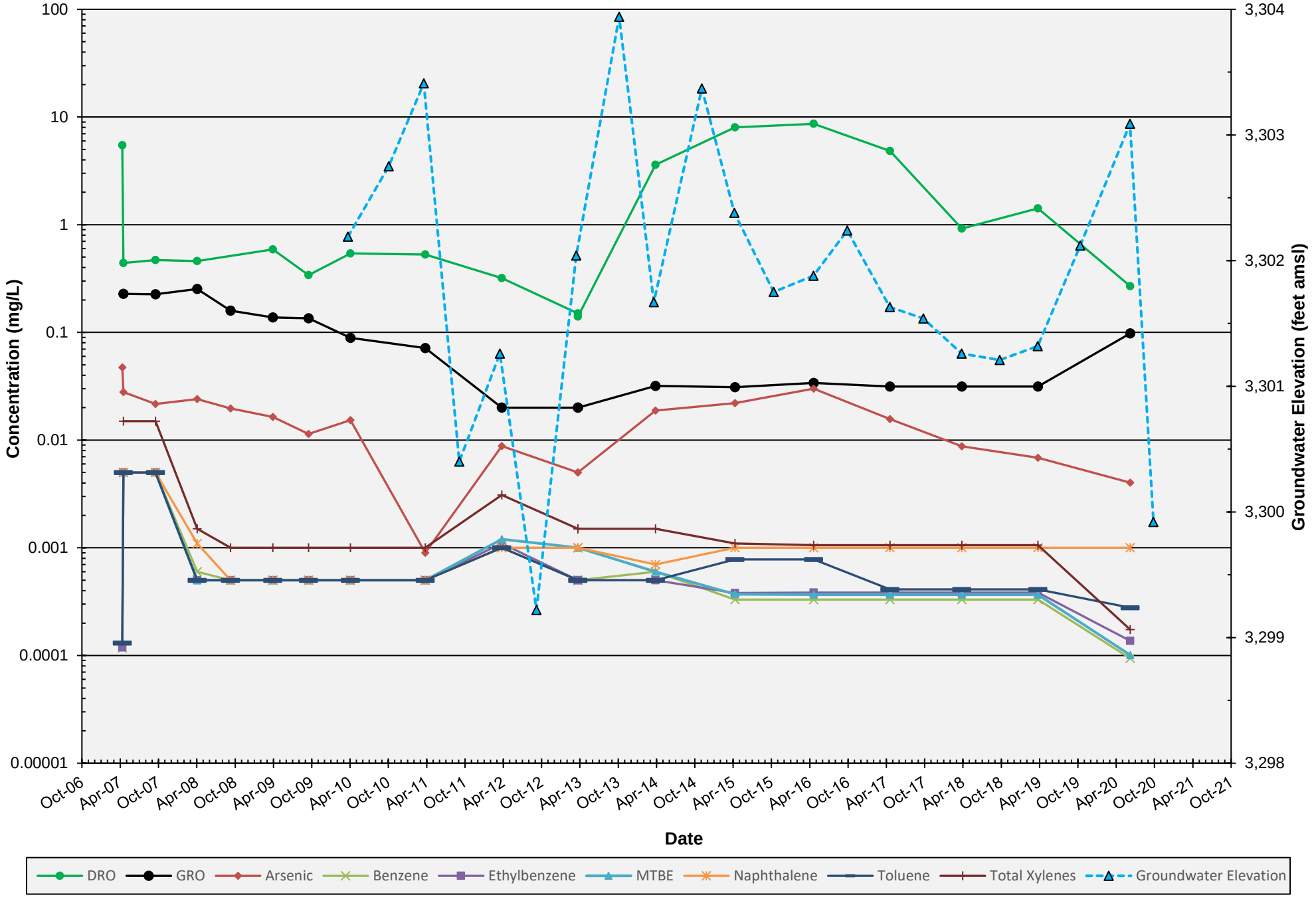
Evaporation Ponds



MW-81: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

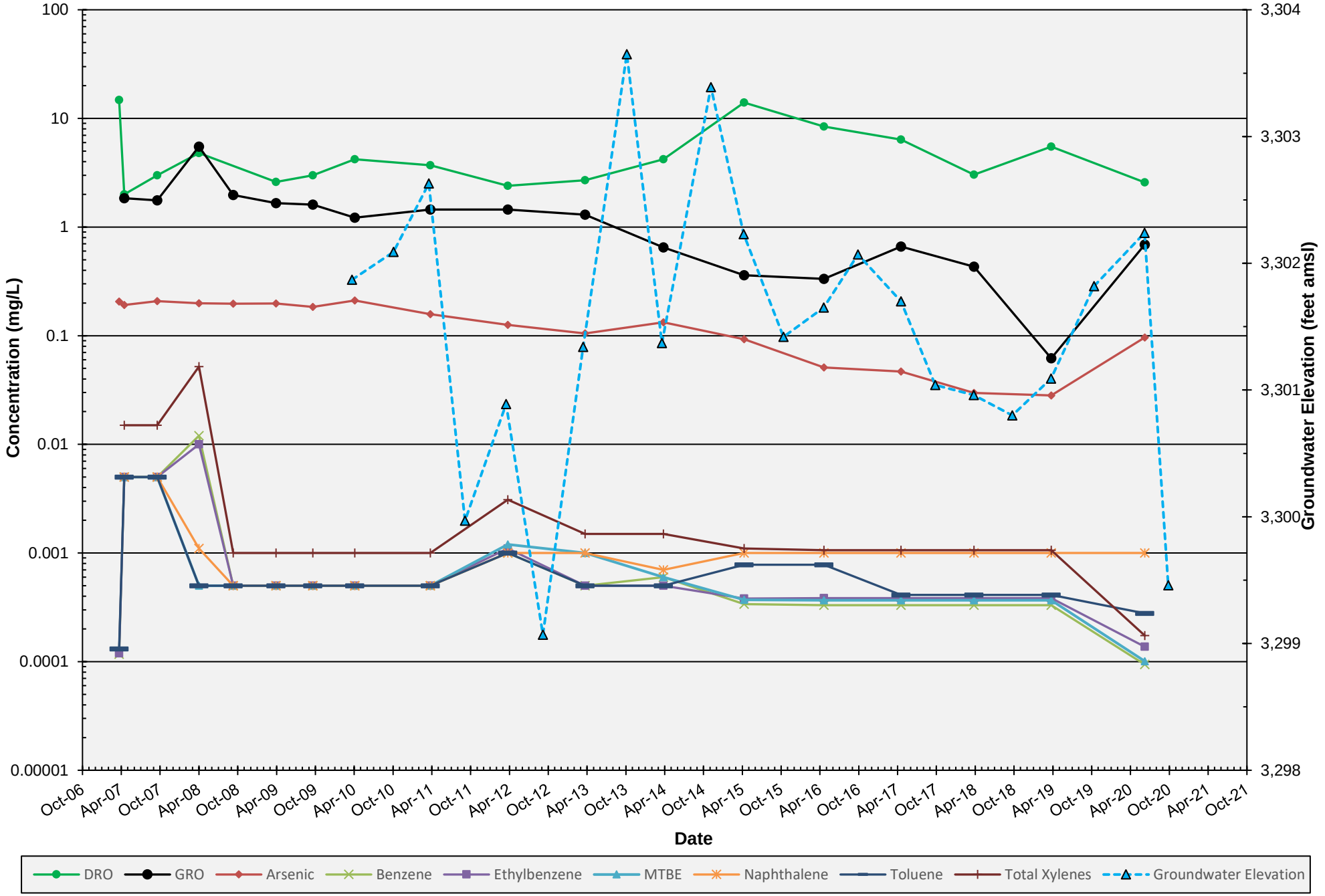
Evaporation Ponds



MW-82: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

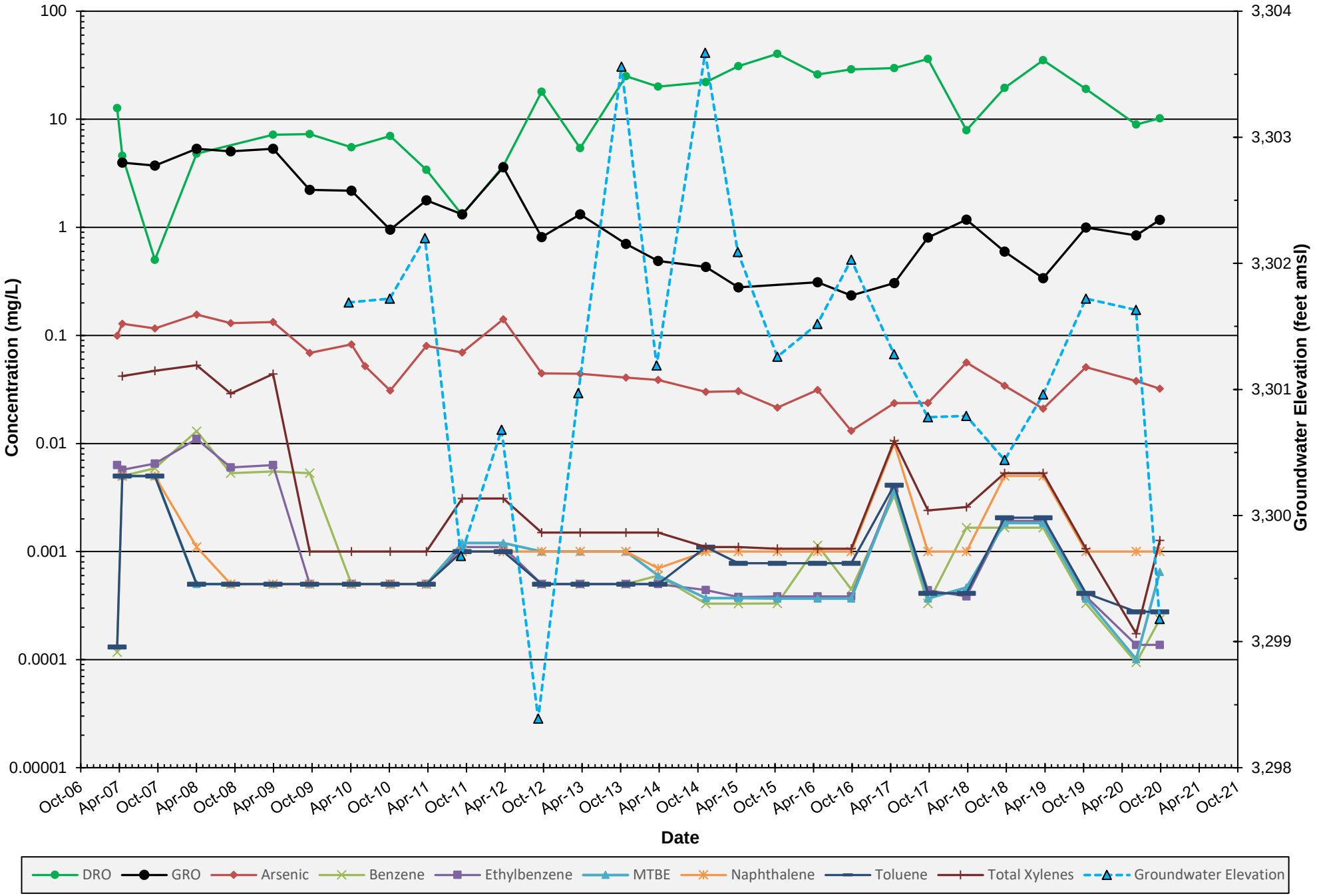
Evaporation Ponds



MW-83: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

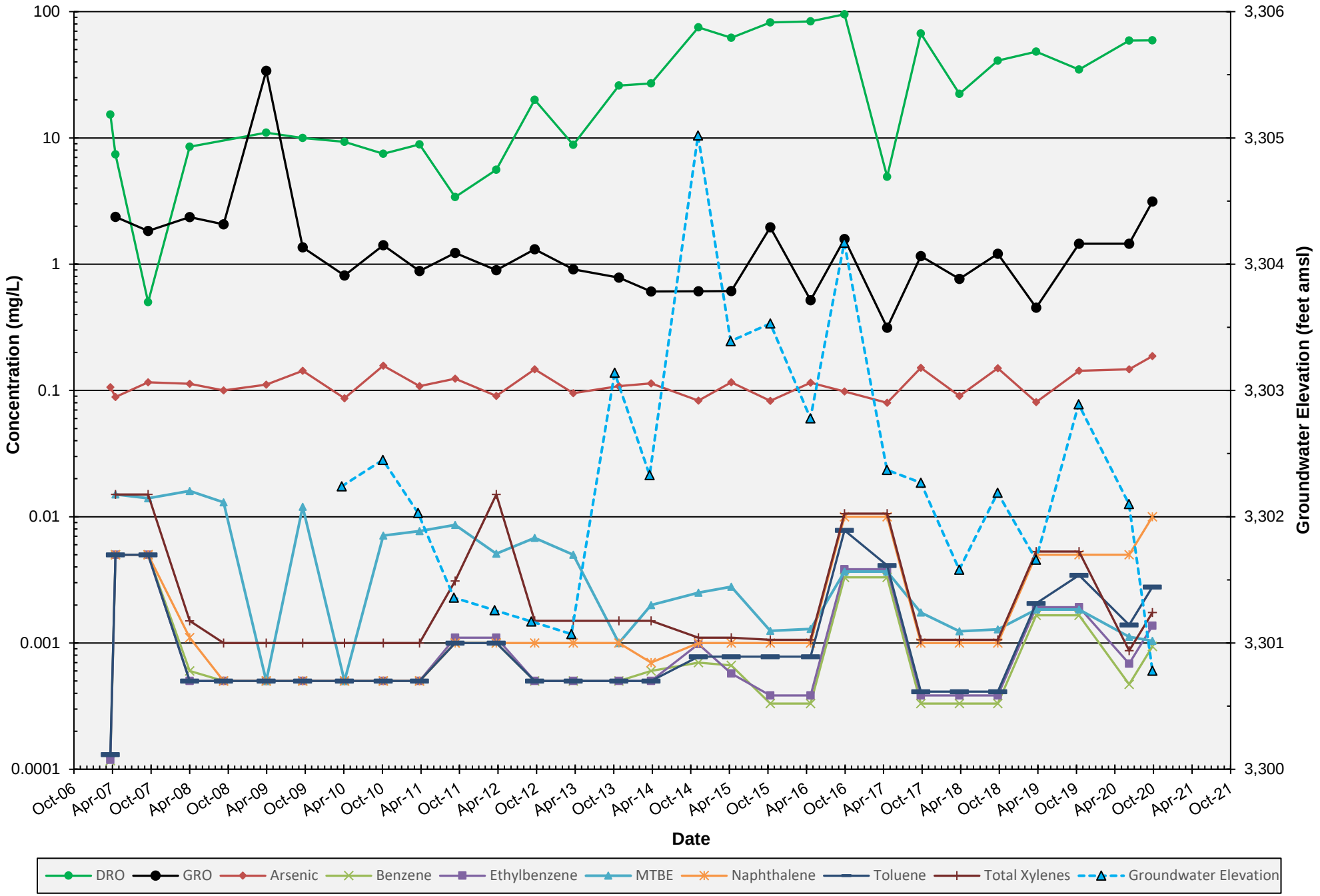
Evaporation Ponds



MW-84: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

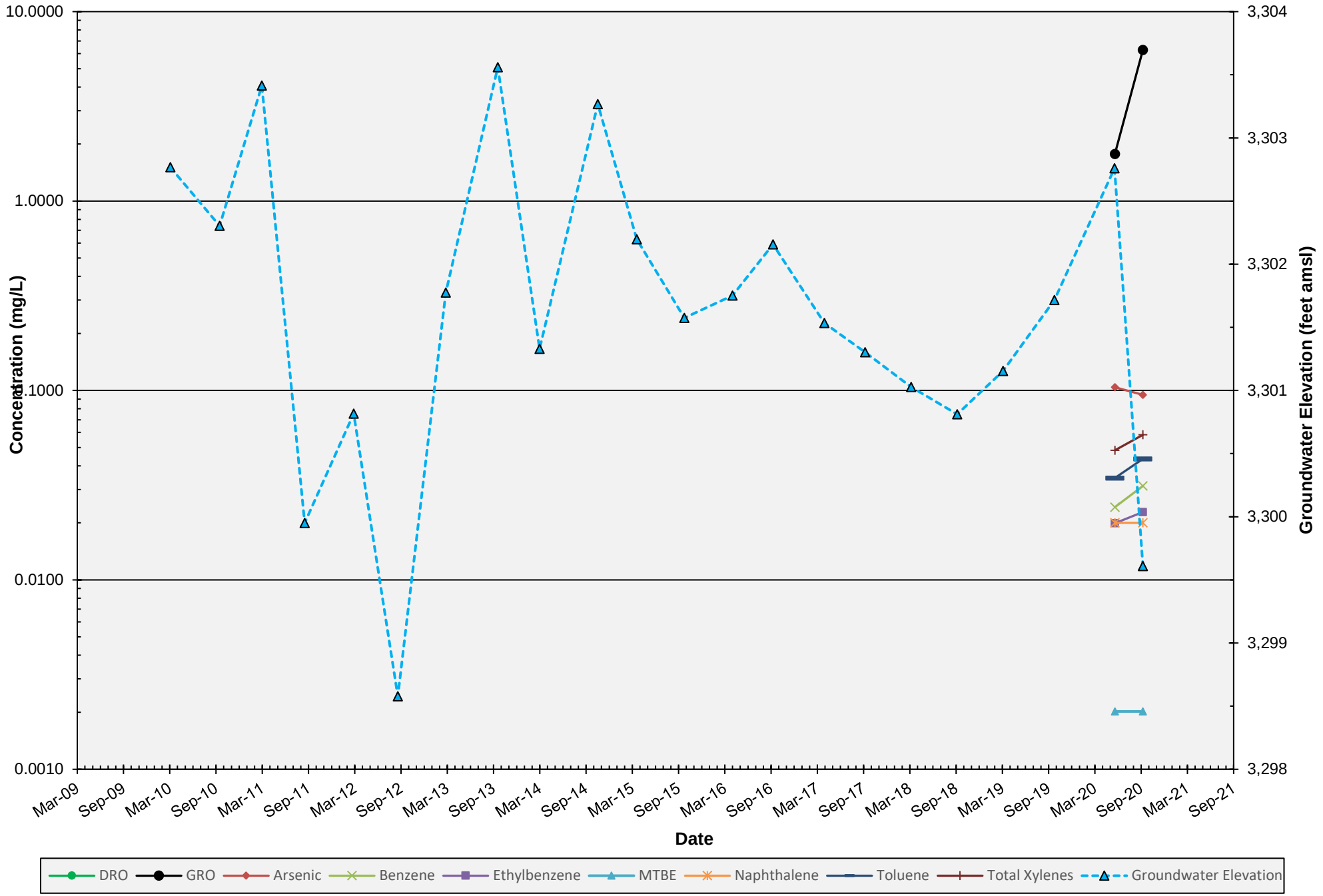
Evaporation Ponds



MW-86: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

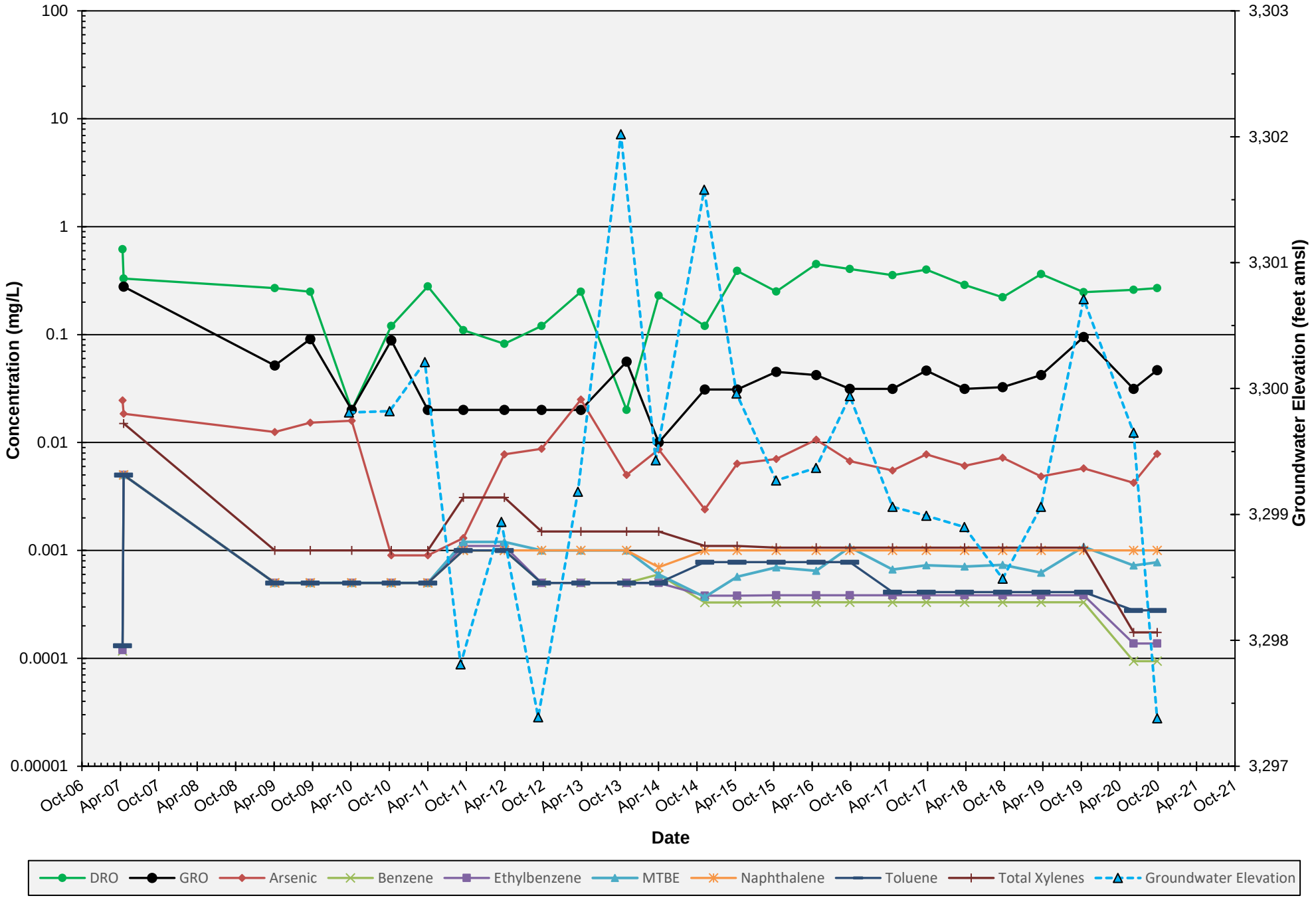
Evaporation Ponds



MW-87: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

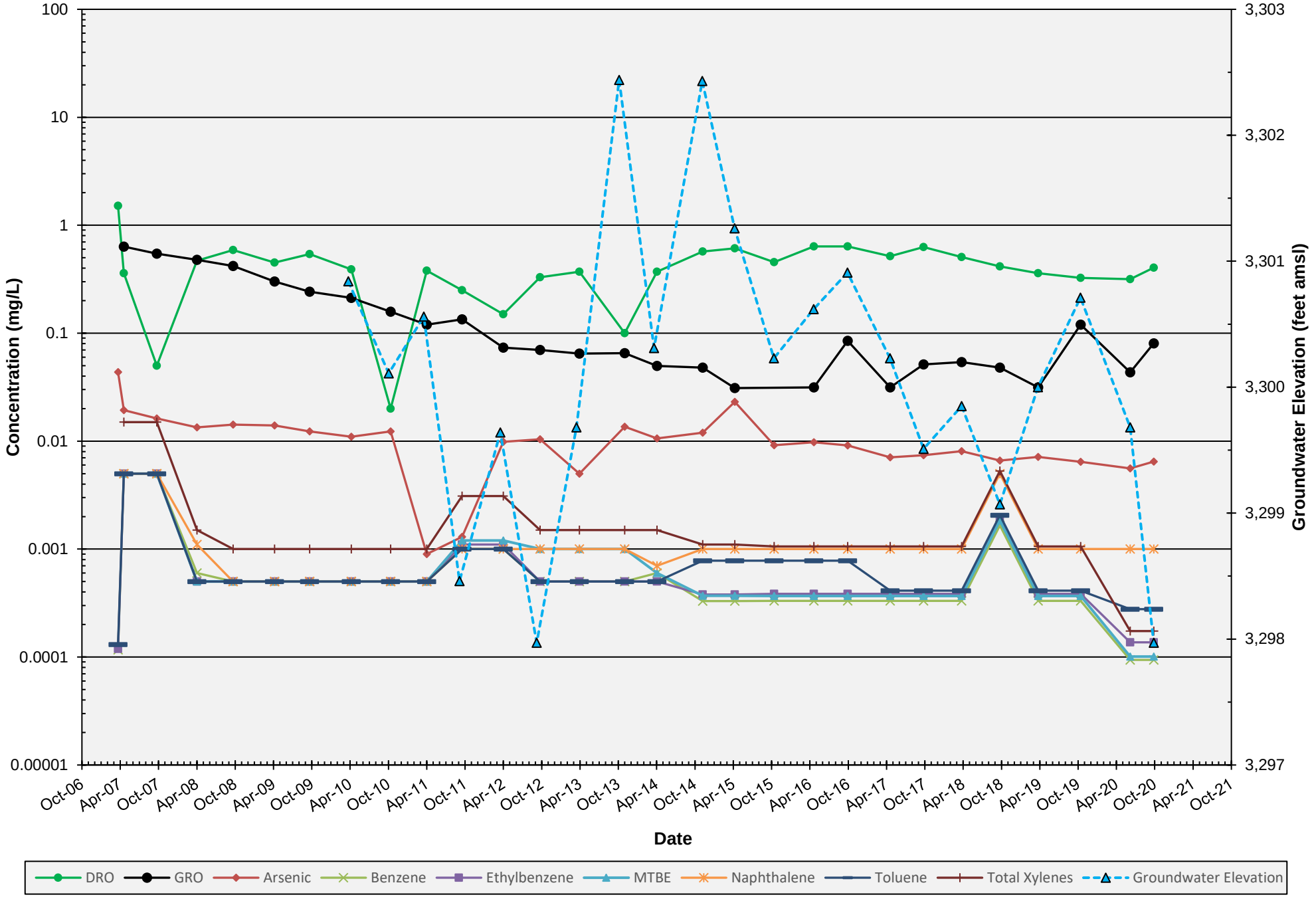
Evaporation Ponds



MW-88: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

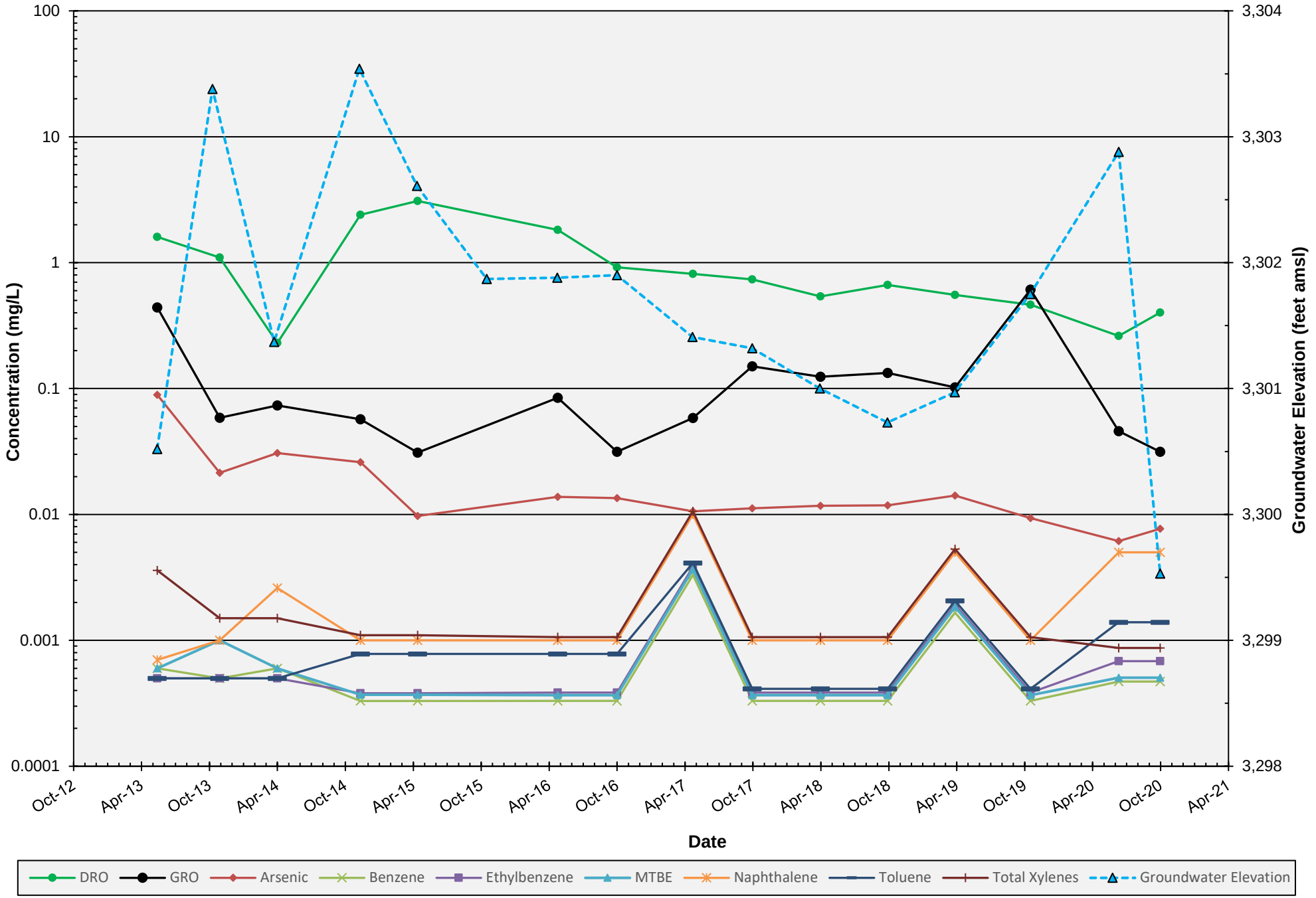
Evaporation Ponds



MW-120: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

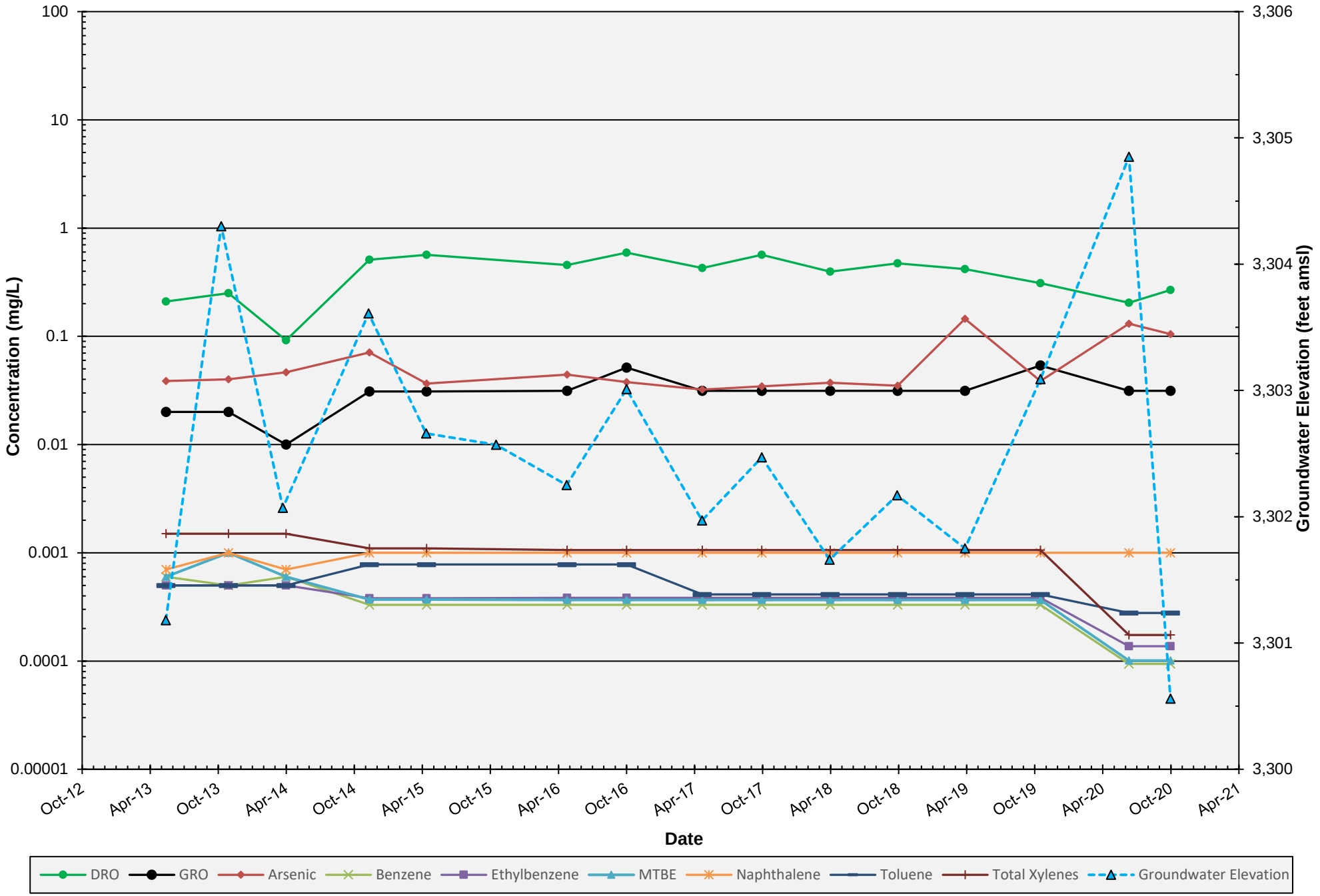
Evaporation Ponds



MW-121: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

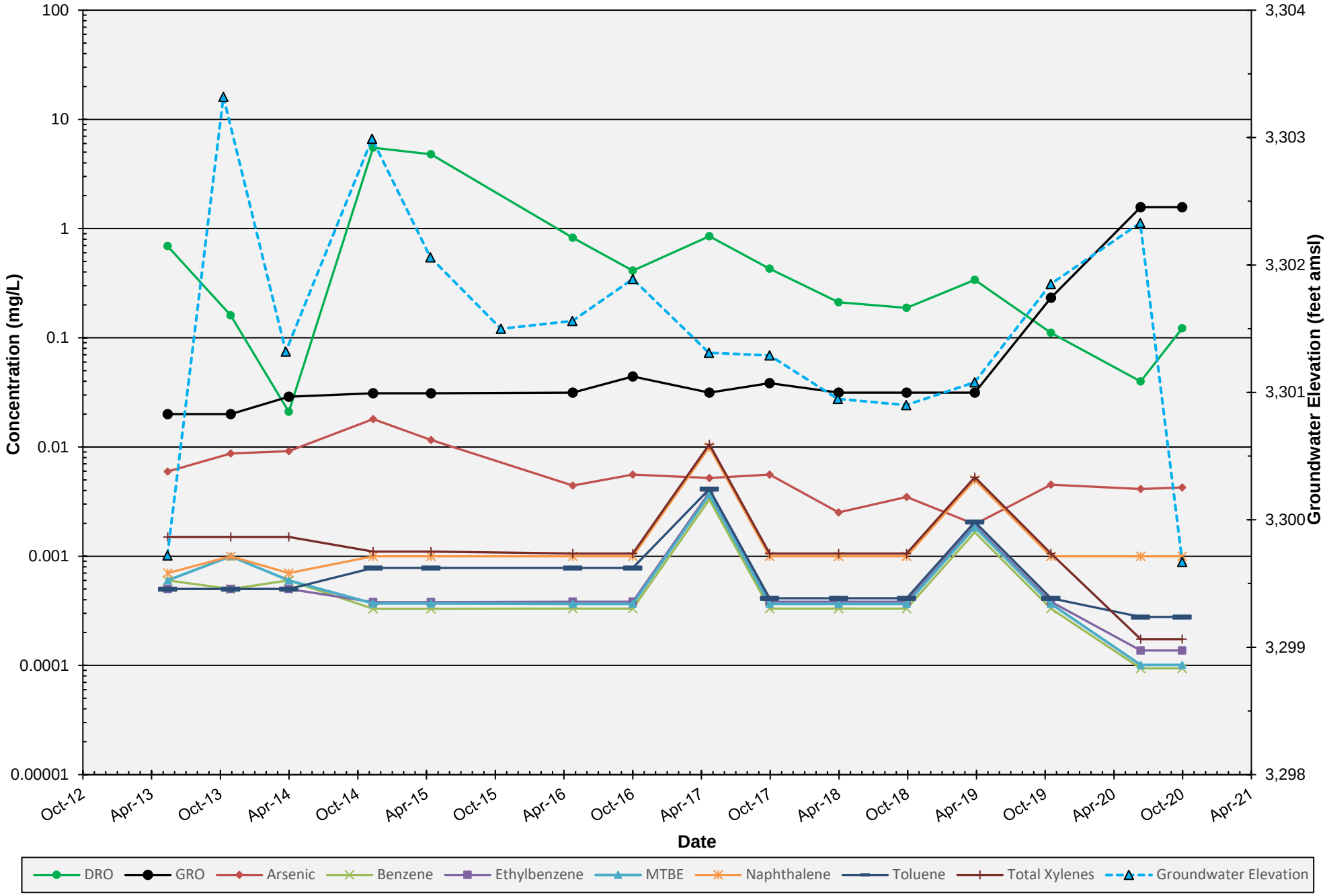
Evaporation Ponds



MW-122: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

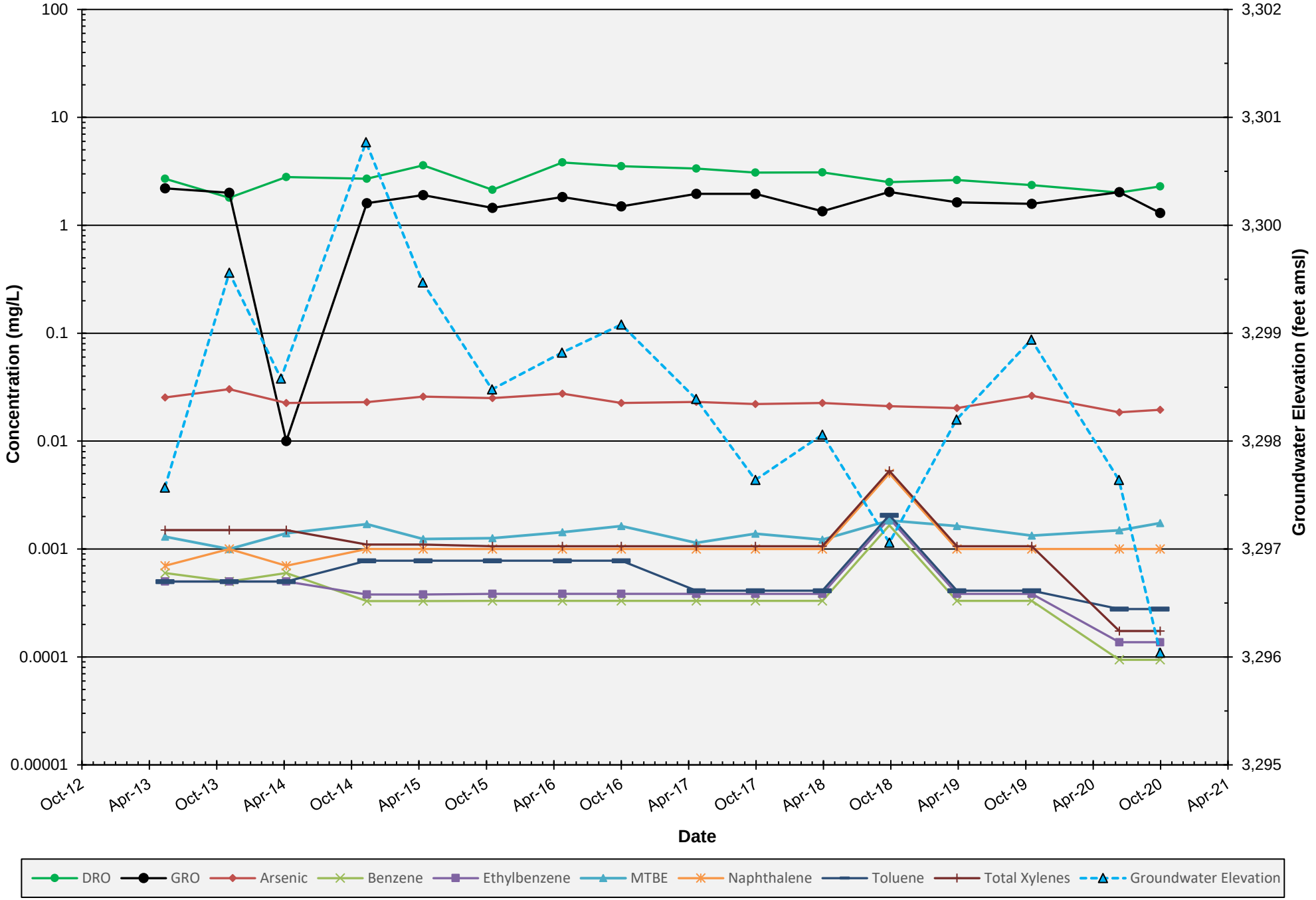
Evaporation Ponds



MW-123: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

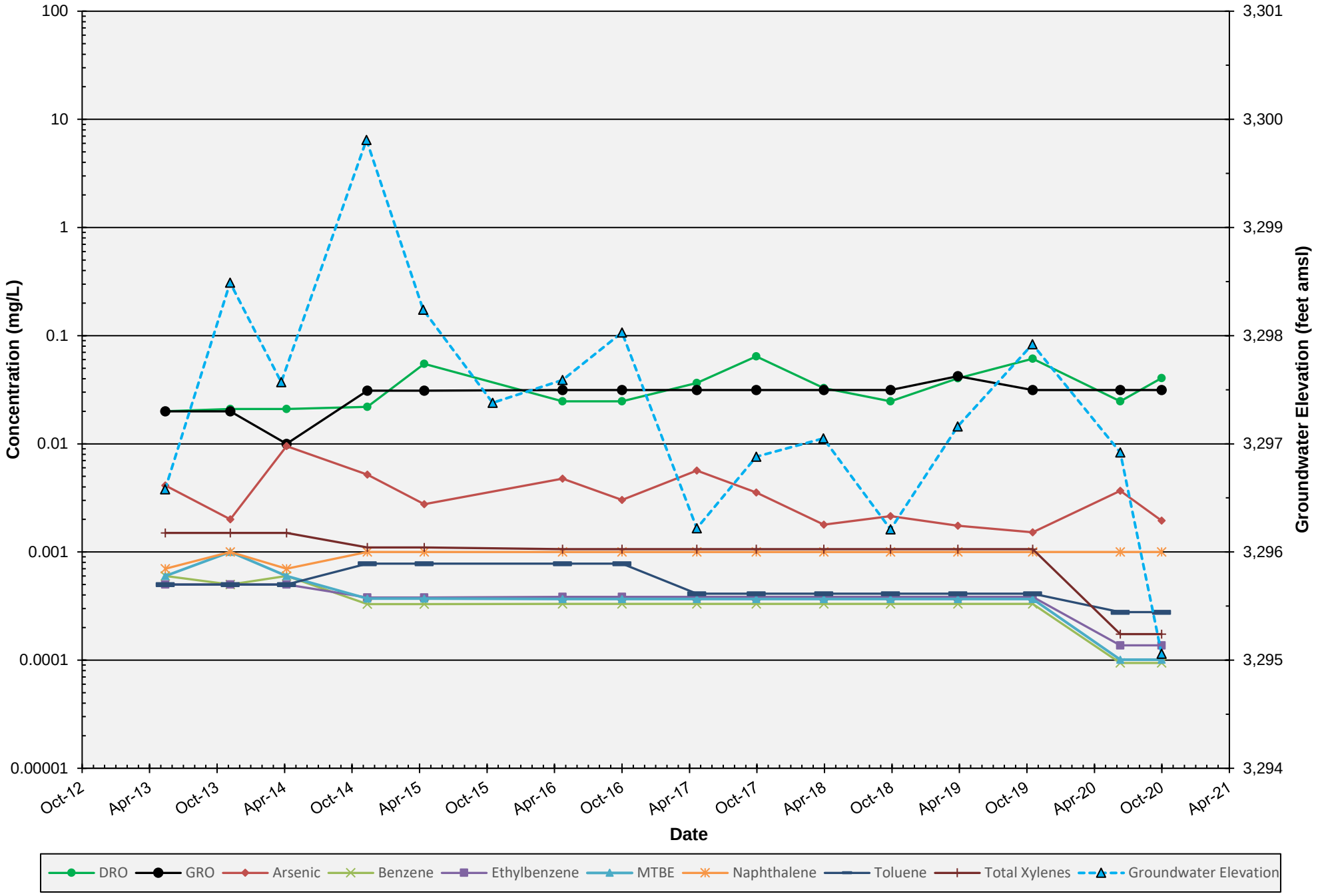
Evaporation Ponds



MW-124: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

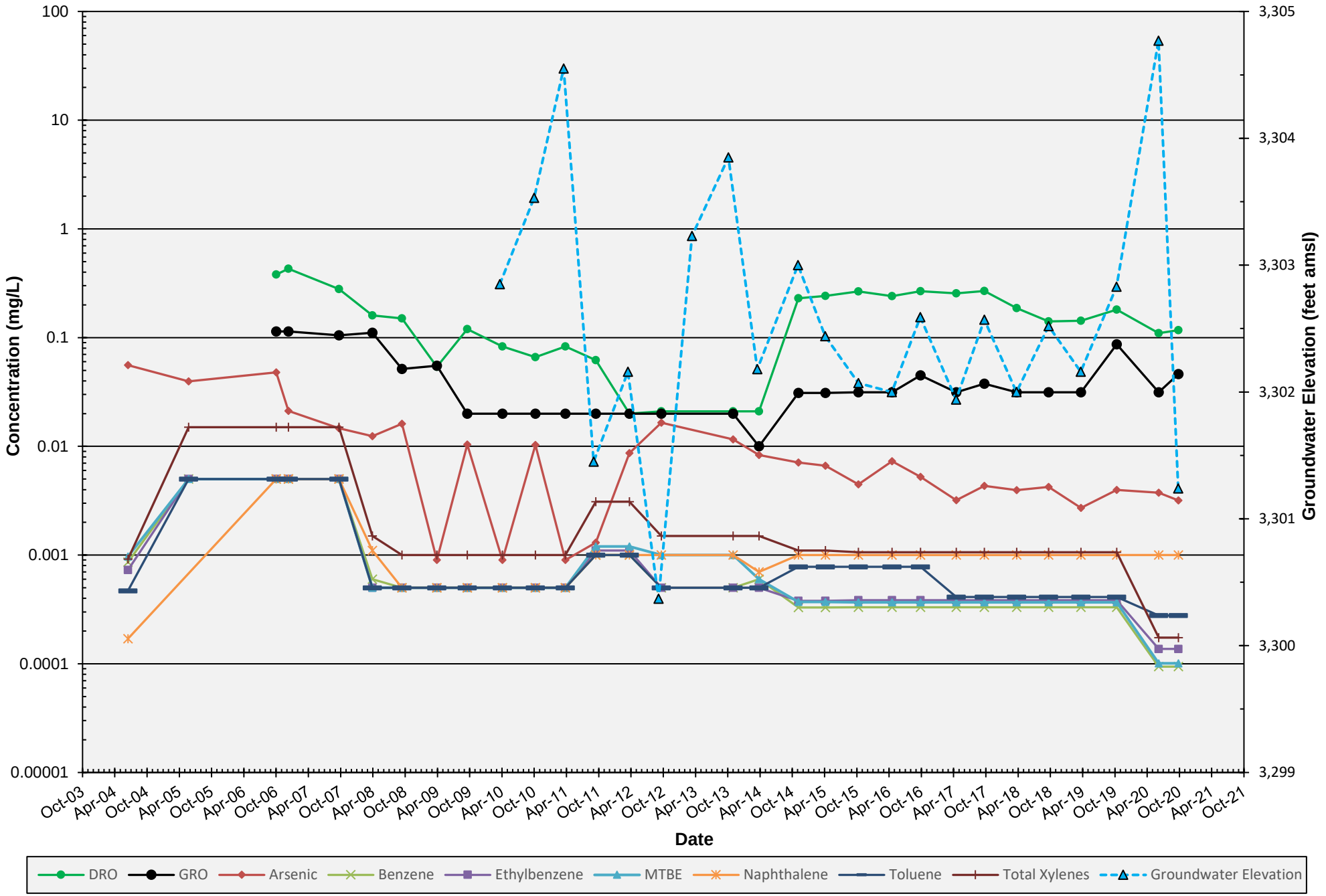
Evaporation Ponds



OCD-1 & OCD-1R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

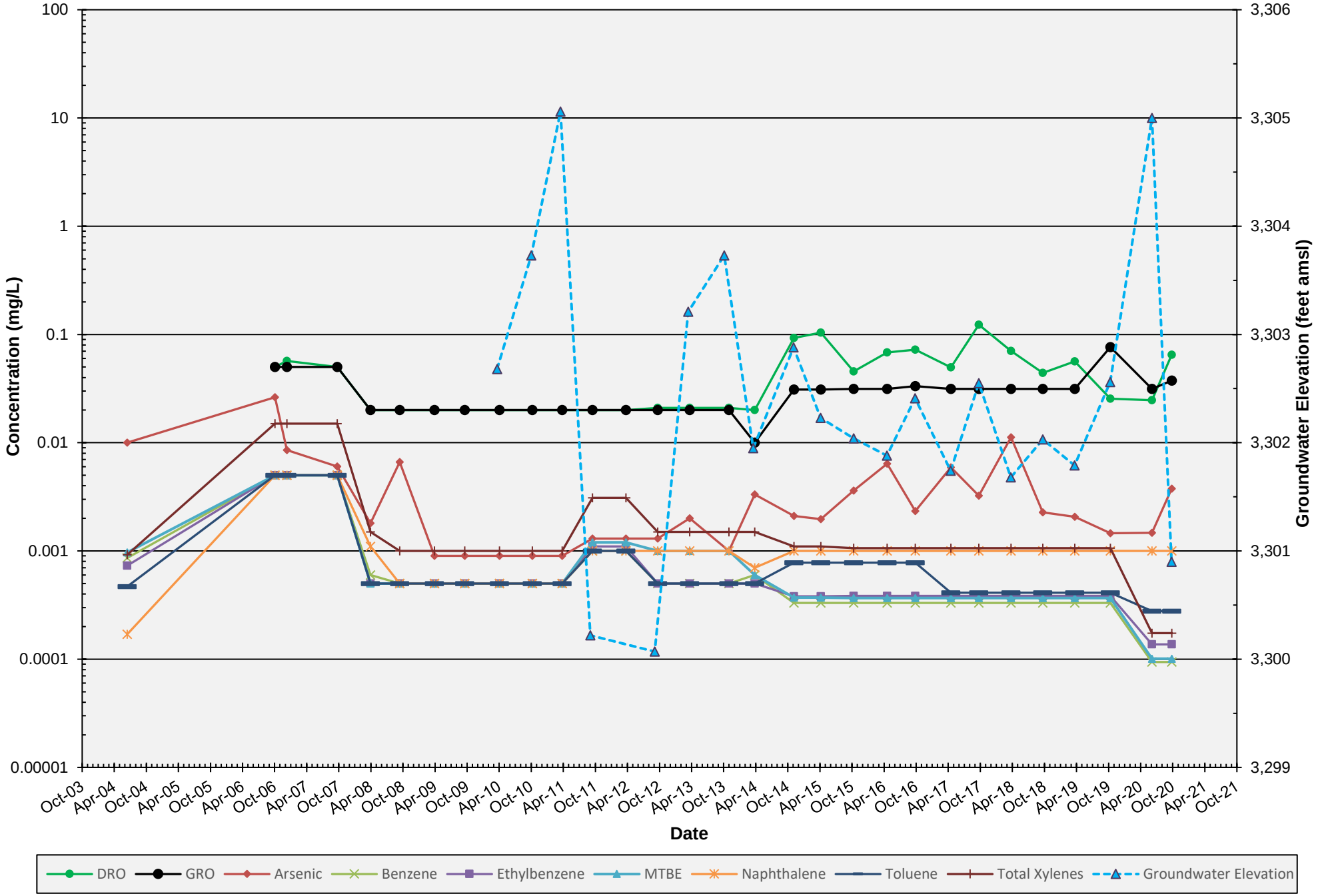
Evaporation Ponds



OCD-2A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

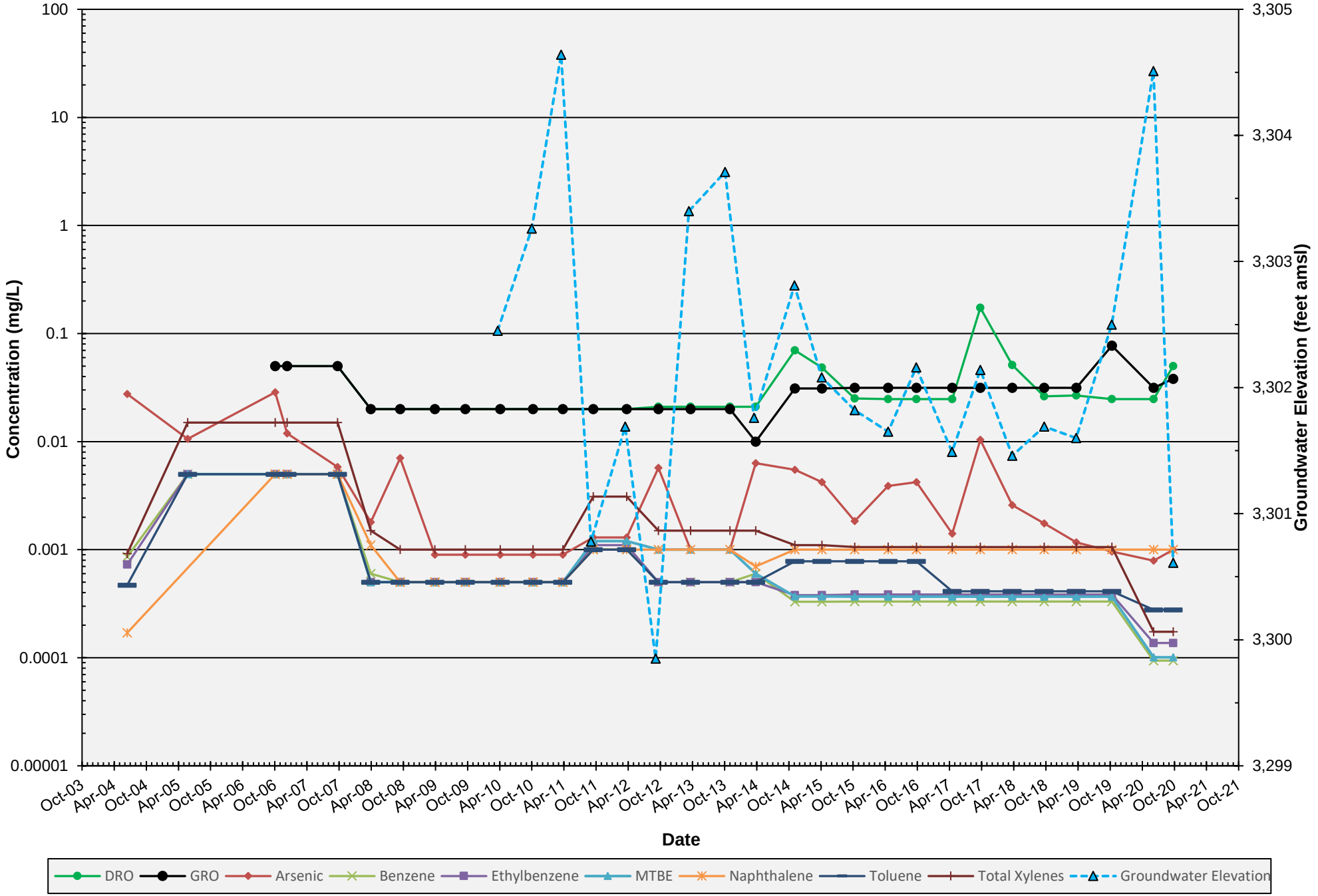
Evaporation Ponds



OCD-3: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

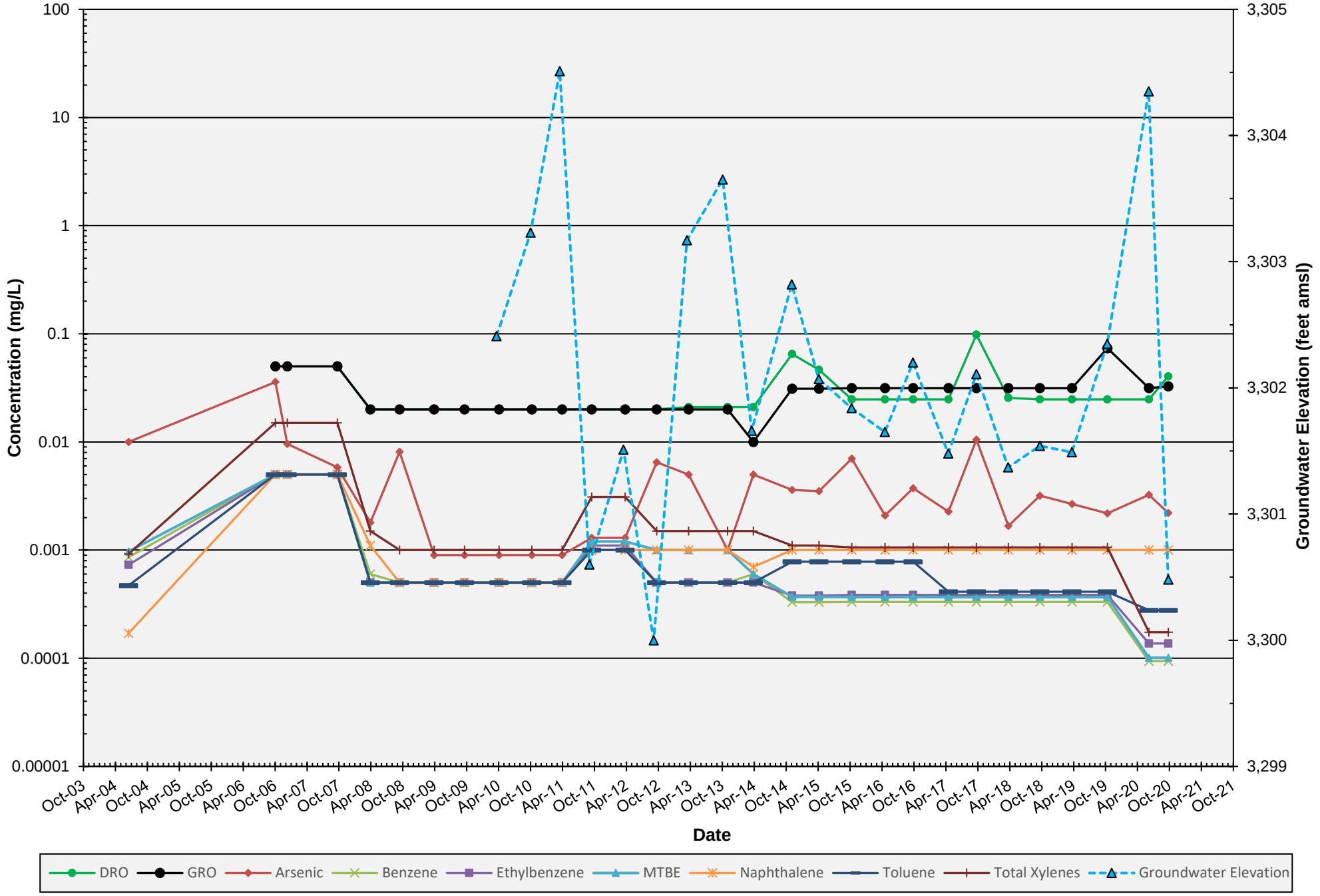
Evaporation Ponds



OCD-4: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

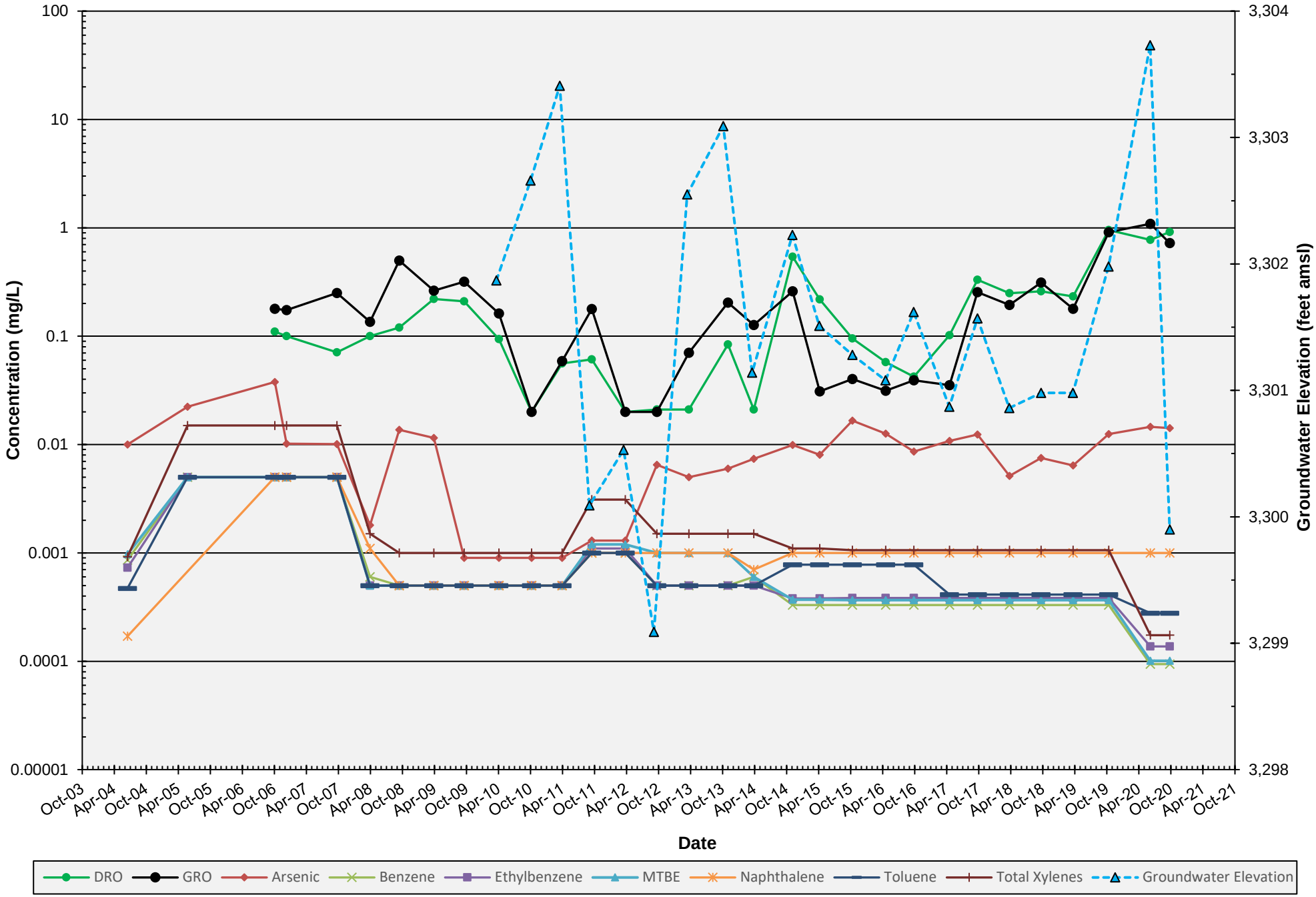
Evaporation Ponds



OCD-5: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

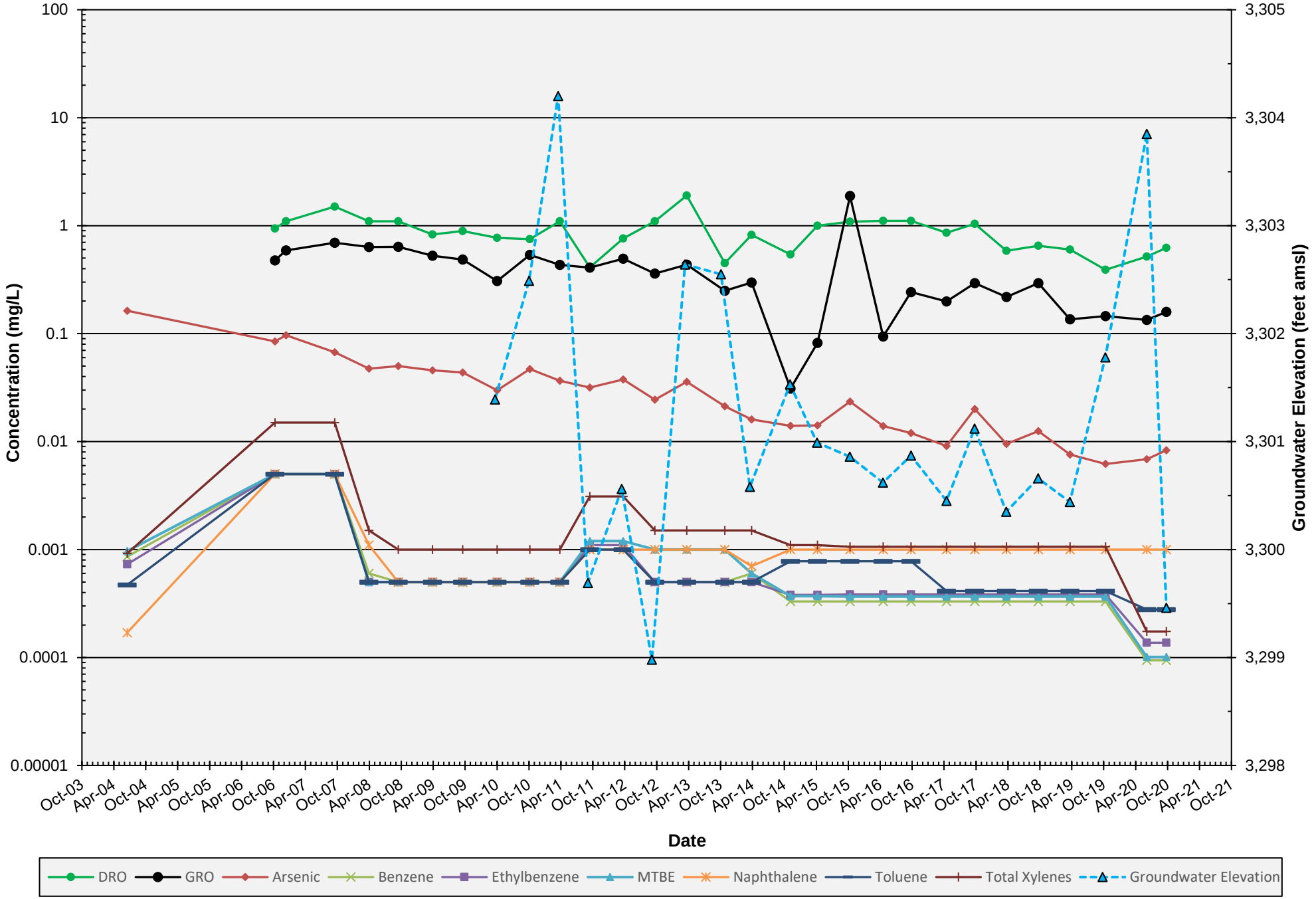
Evaporation Ponds



OCD-6: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

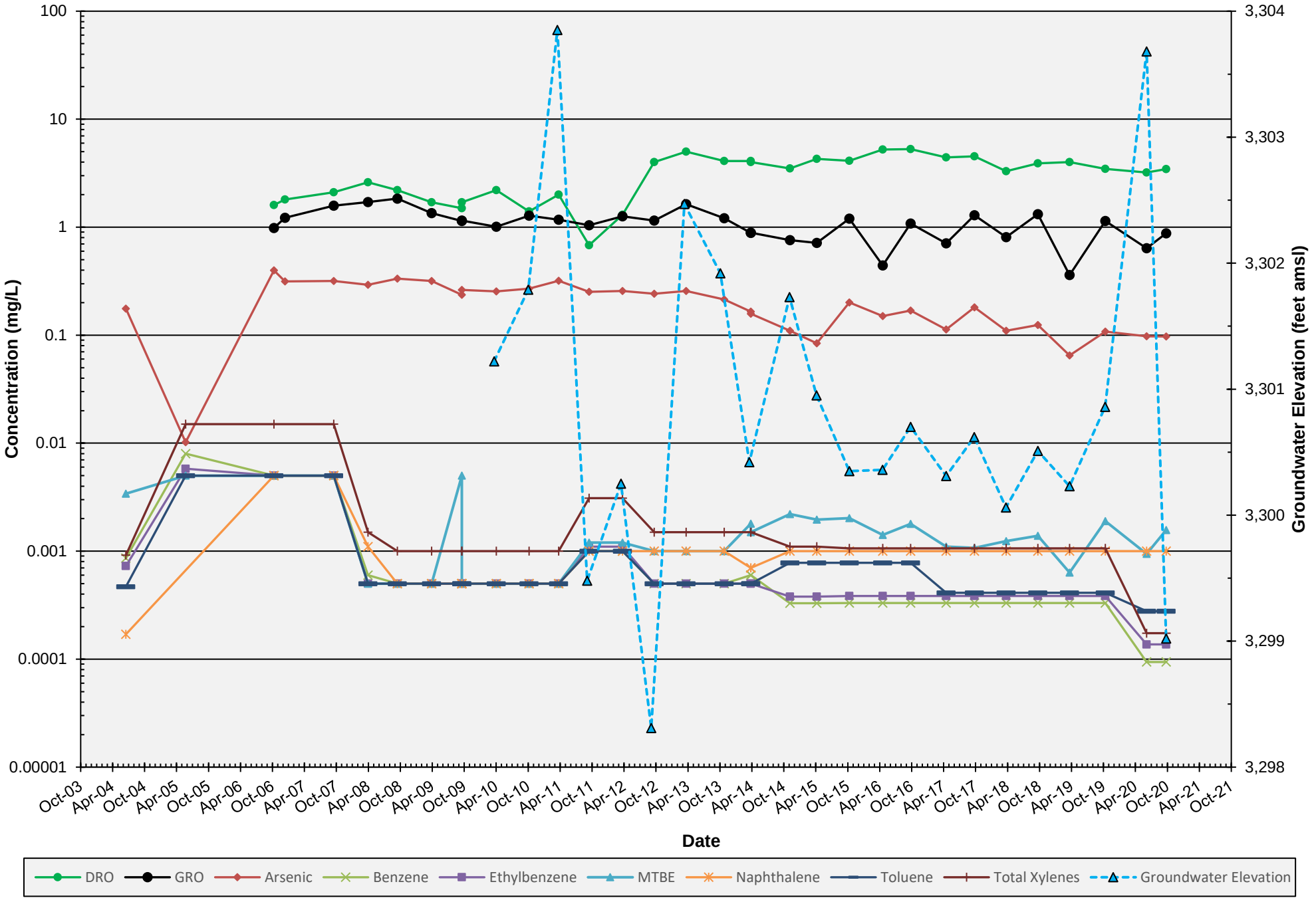
Evaporation Ponds



OCD-7A & OCD-7AR: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

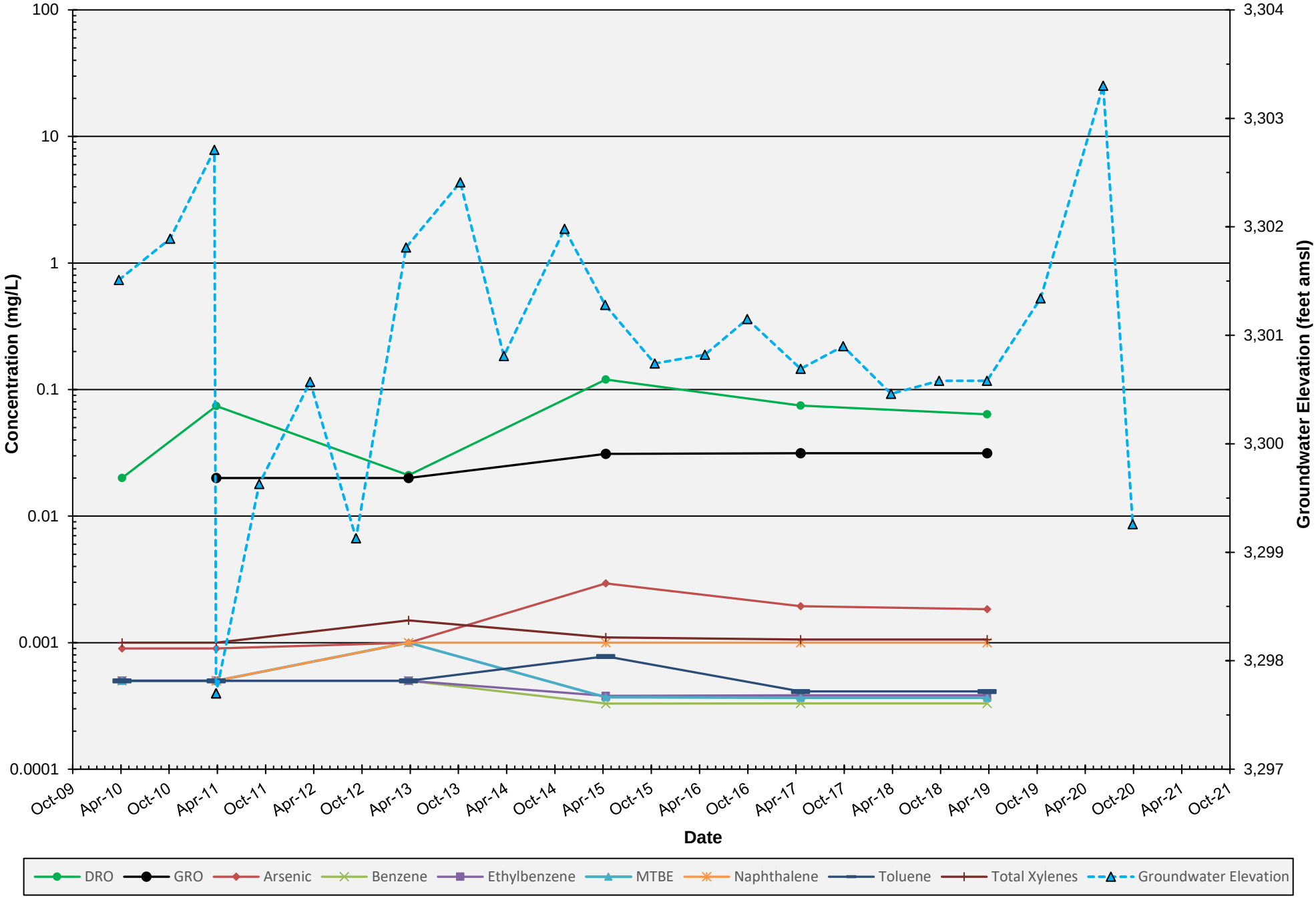
Evaporation Ponds



OCD-7B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

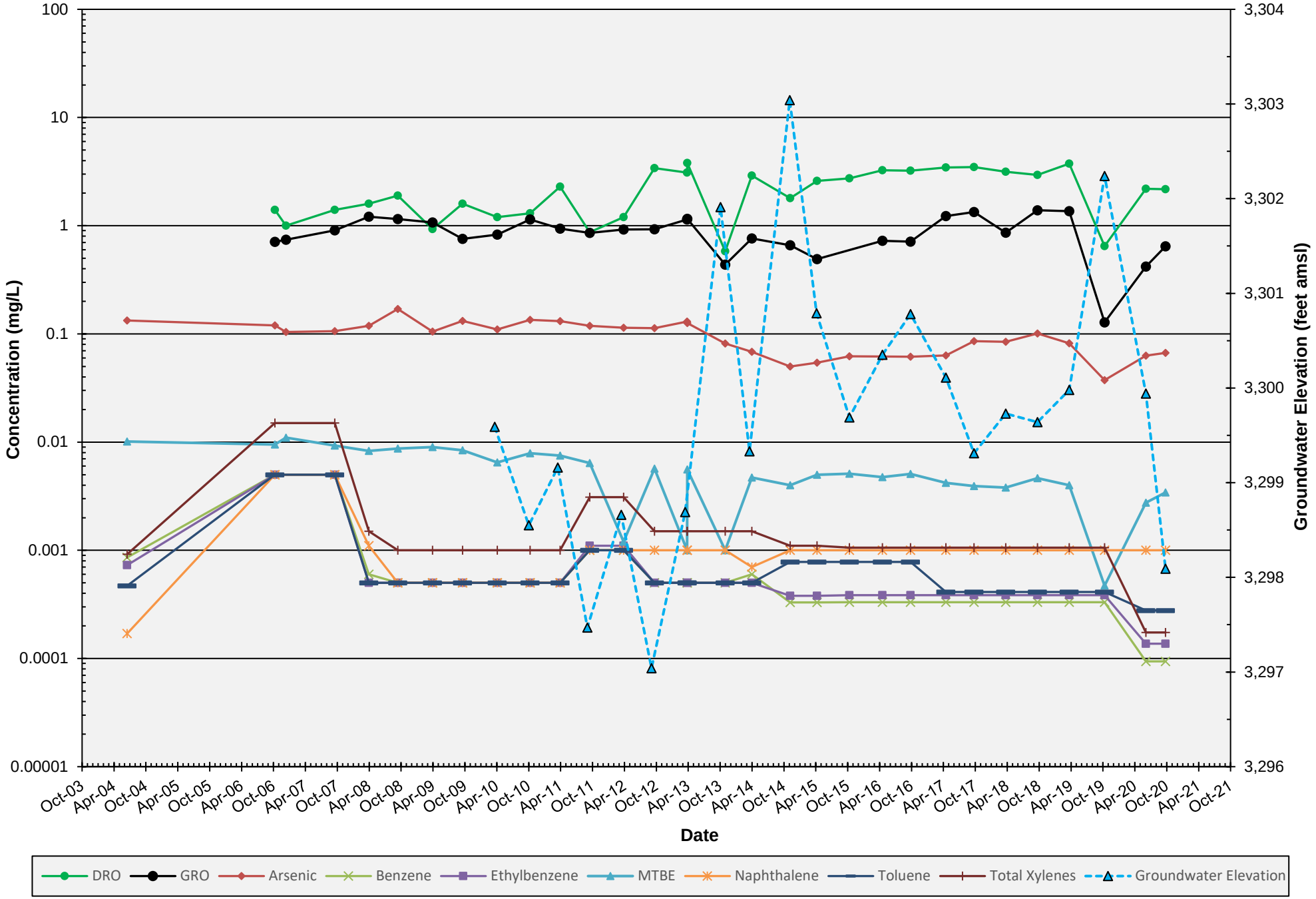
Evaporation Ponds



OCD-8A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

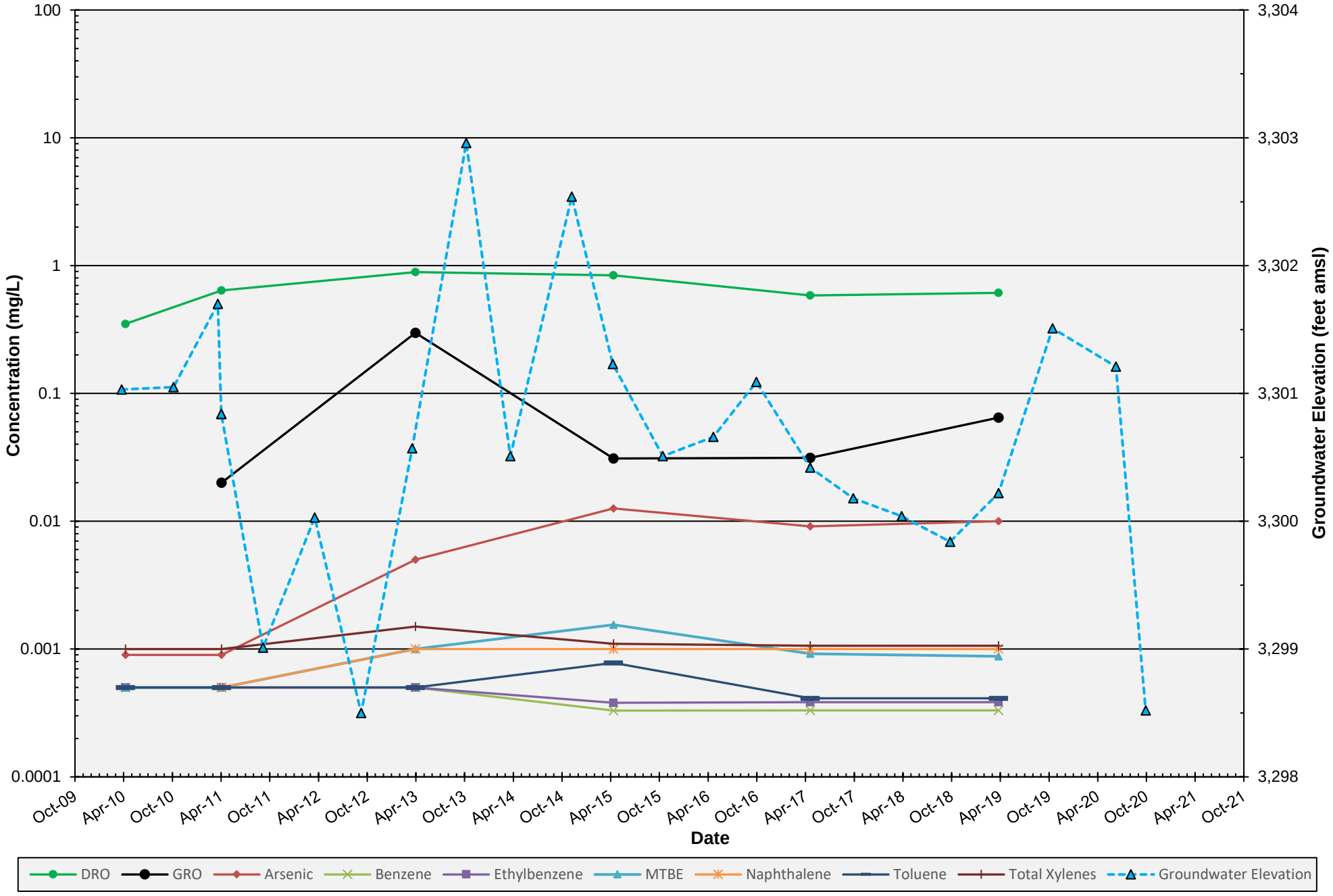
Evaporation Ponds



OCD-8B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

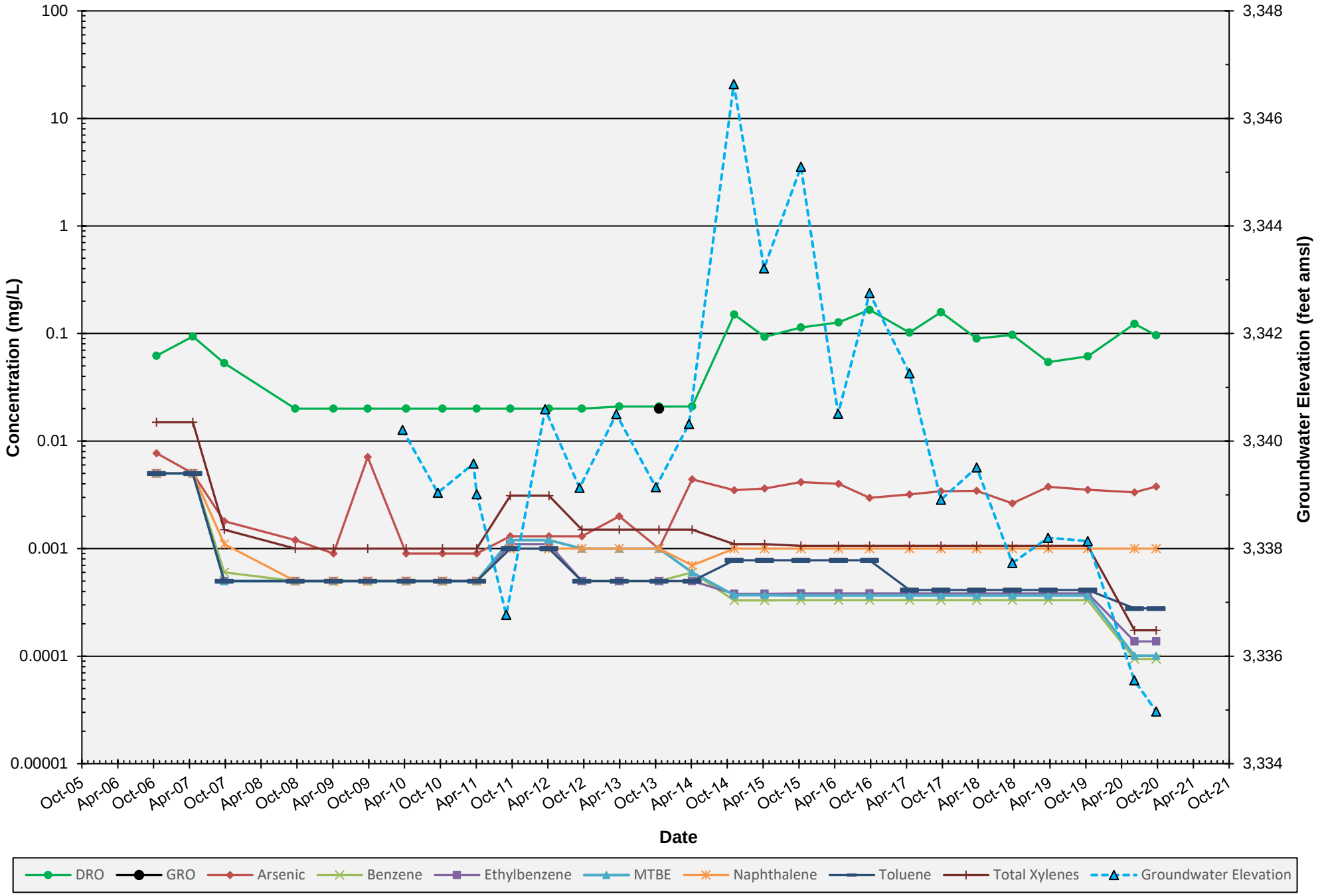
Evaporation Ponds



KWB-1A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

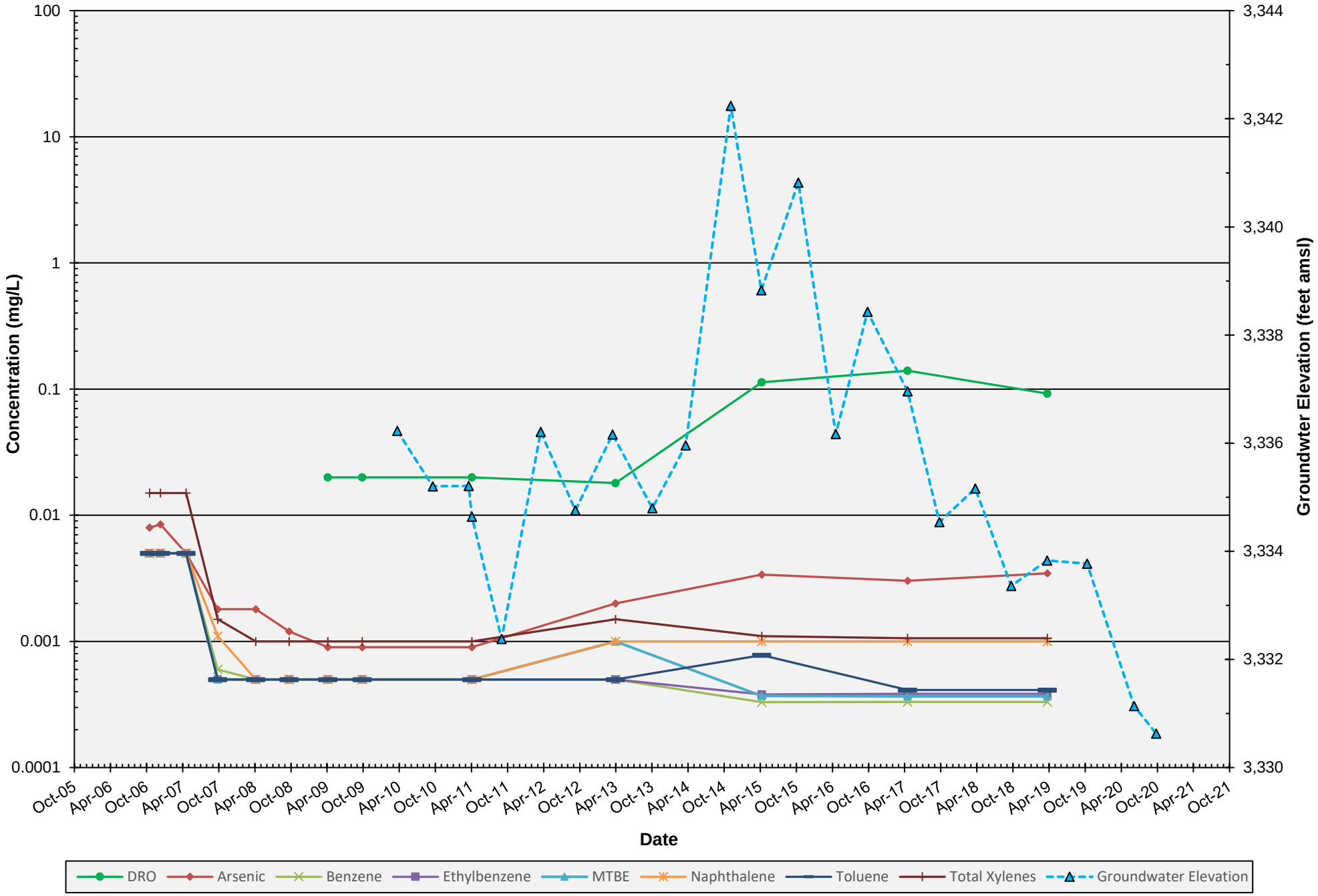
Field East of Refinery



KWB-1C: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

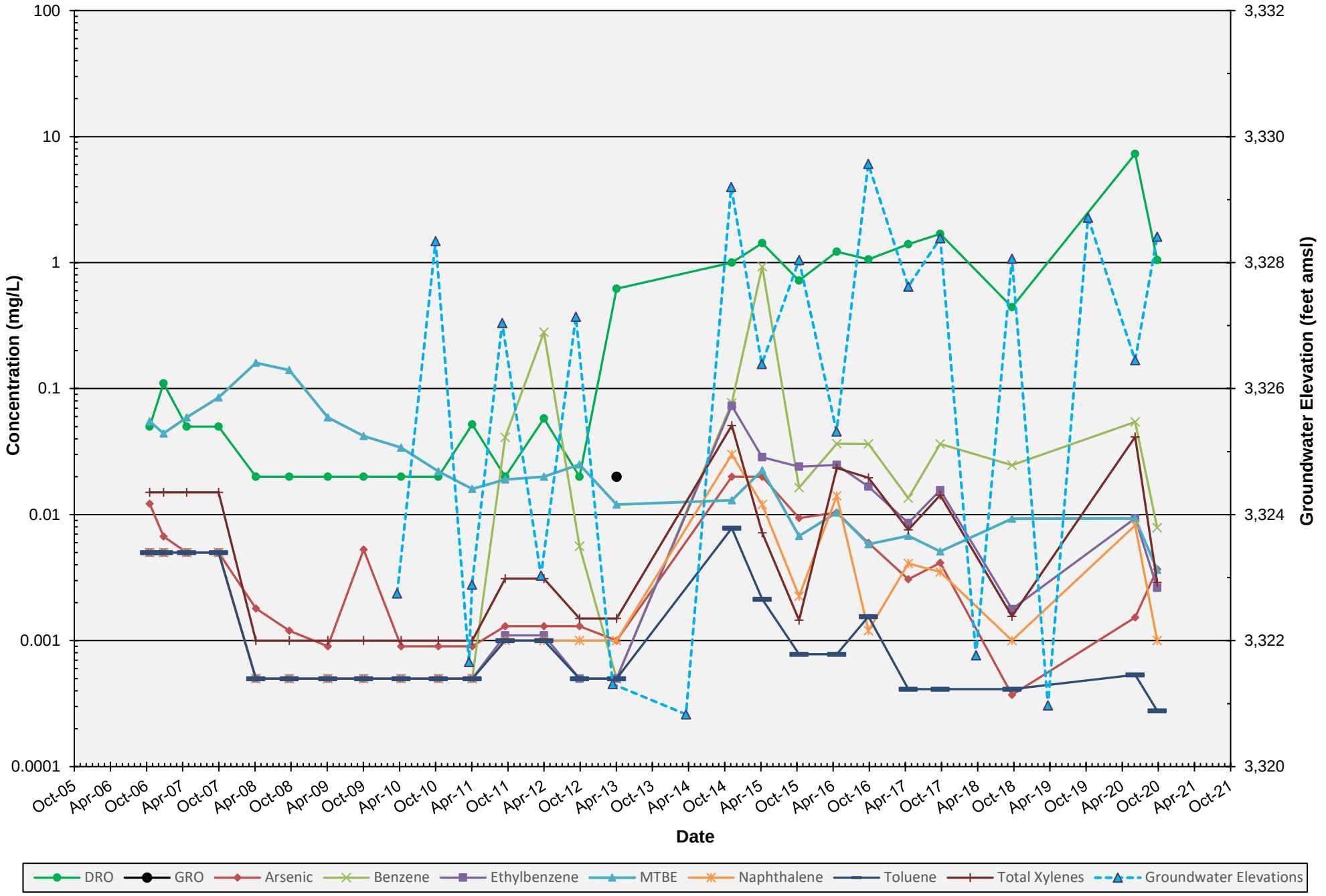
Field East of Refinery



KWB-7: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

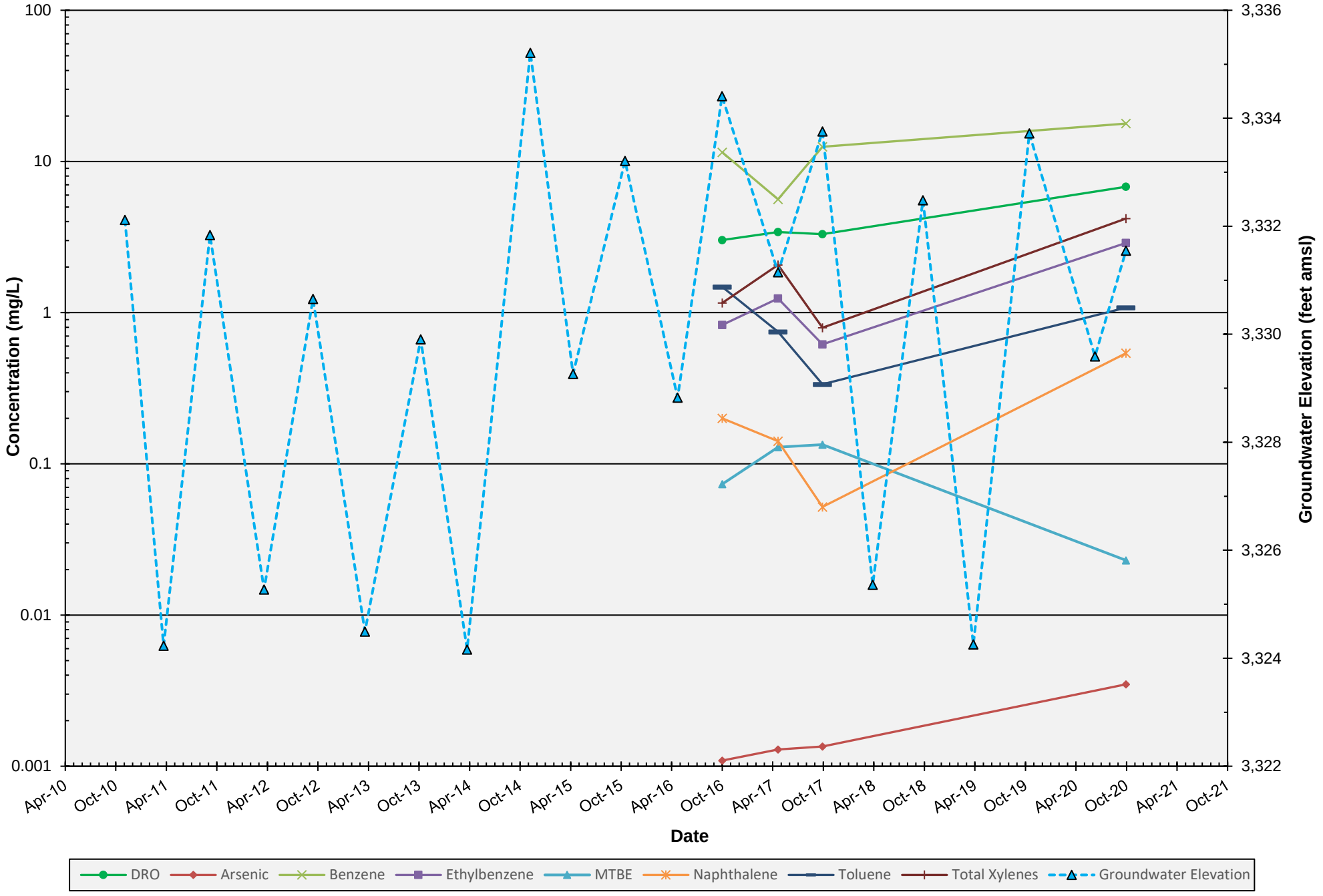
Field East of Refinery



KWB-8: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

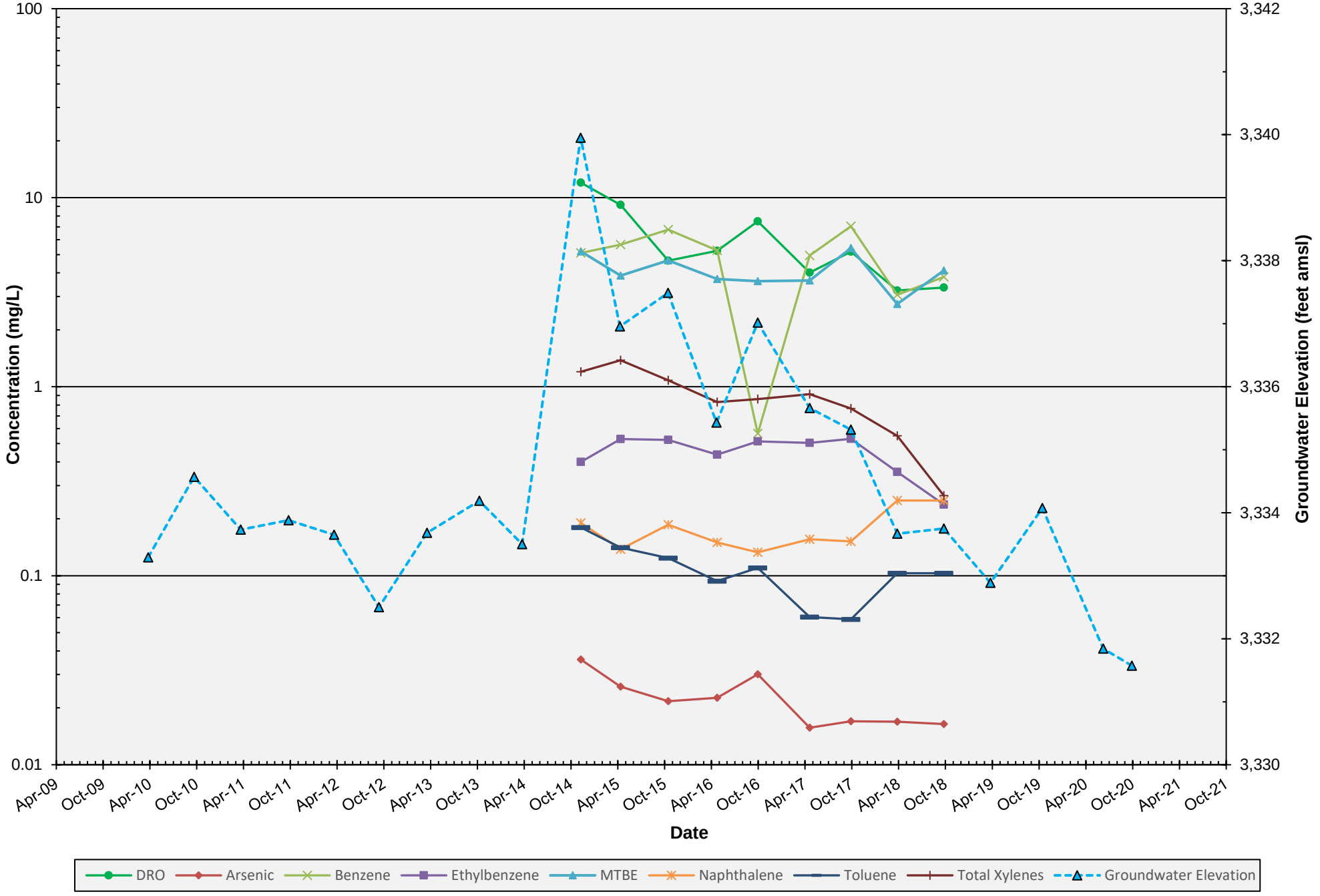
Field East of Refinery



KWB-10R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

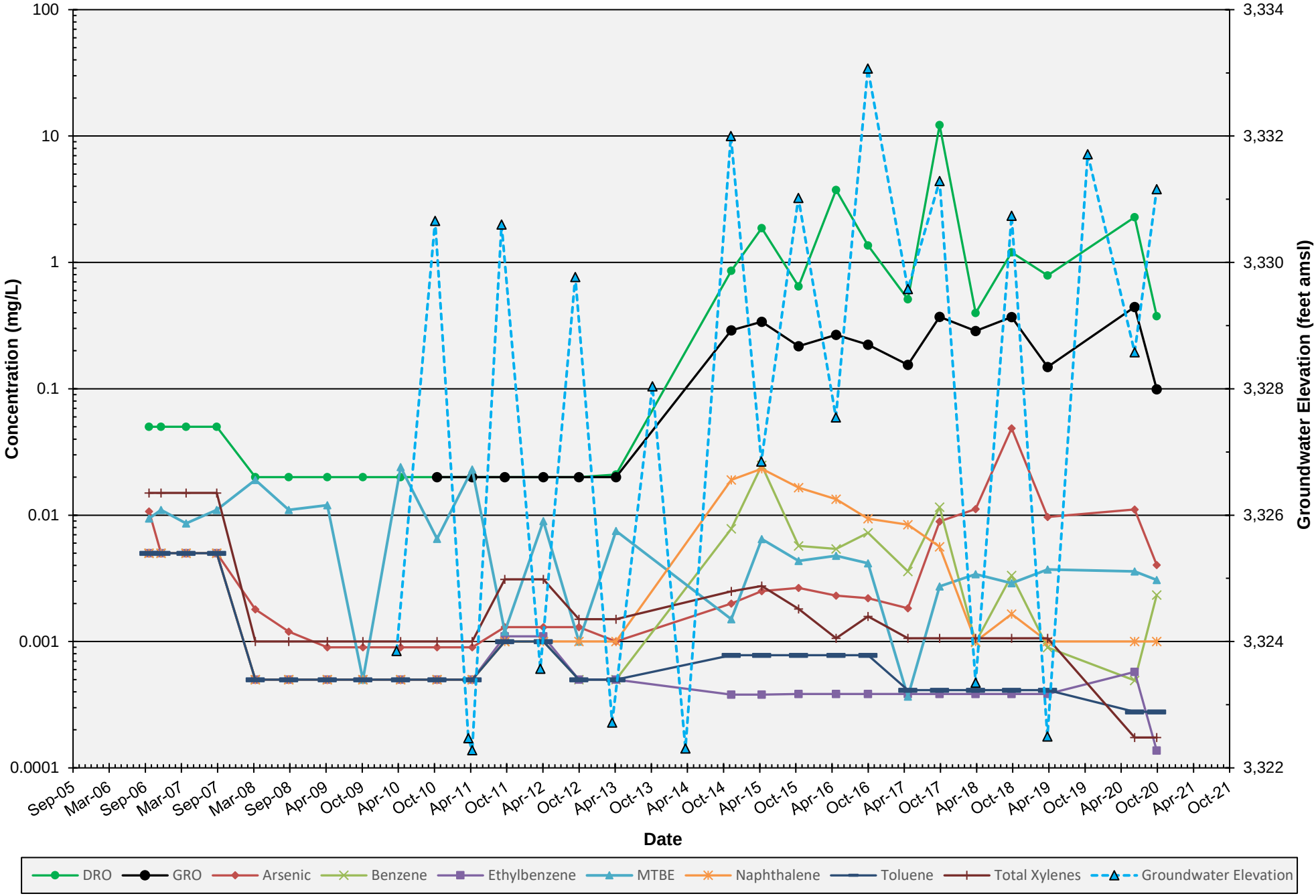
Field East of Refinery



KWB-11A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

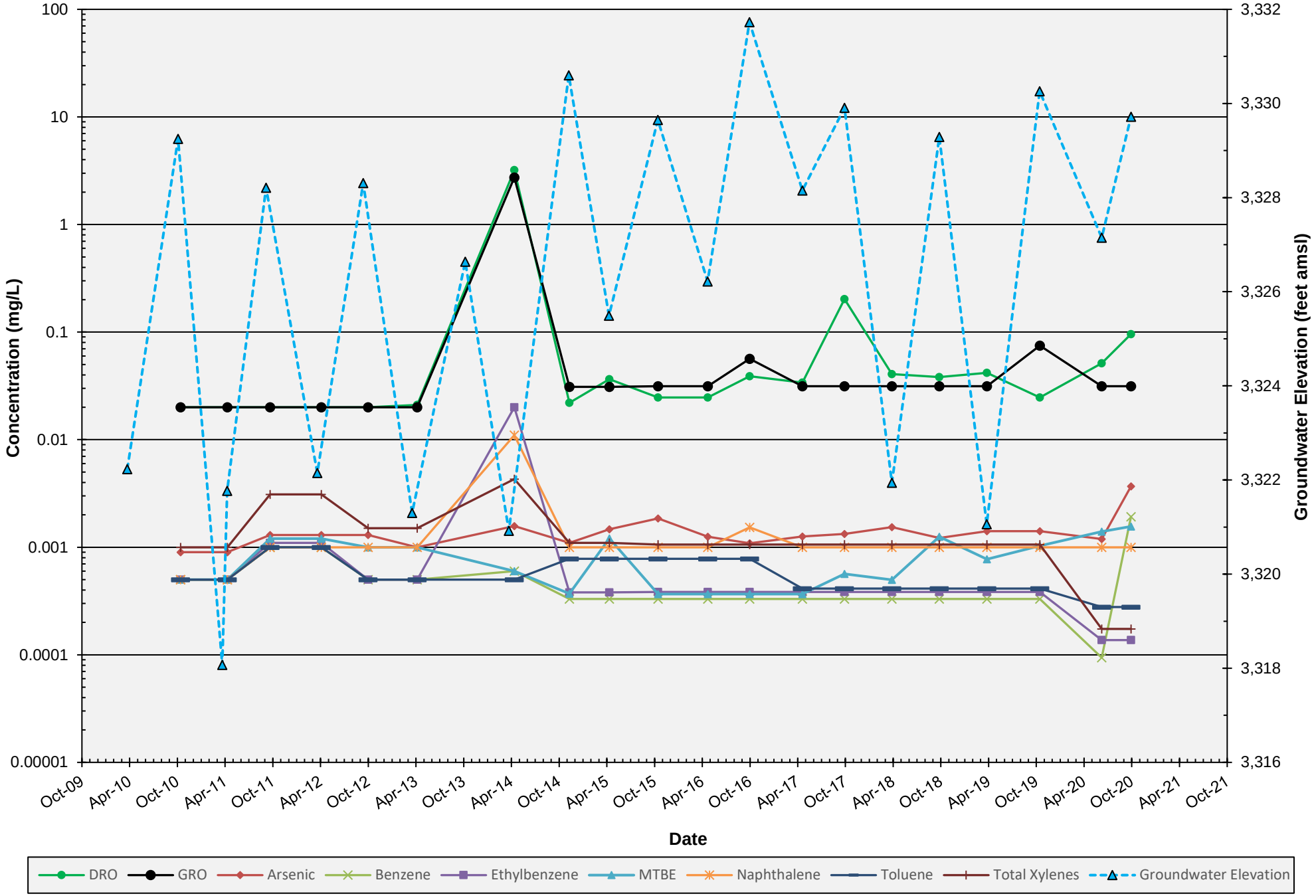
Field East of Refinery



KWB-11B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

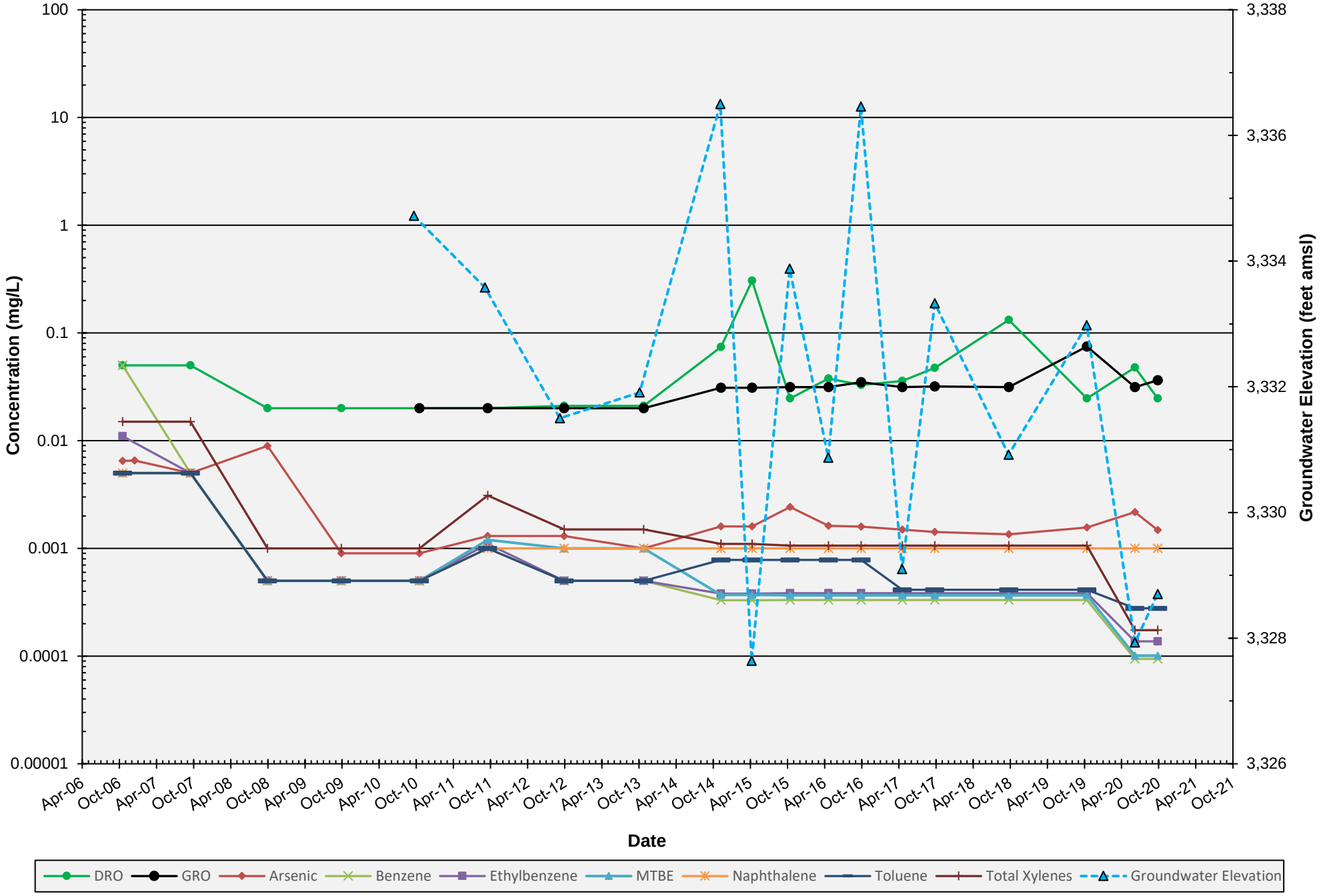
Field East of Refinery



KWB-12A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

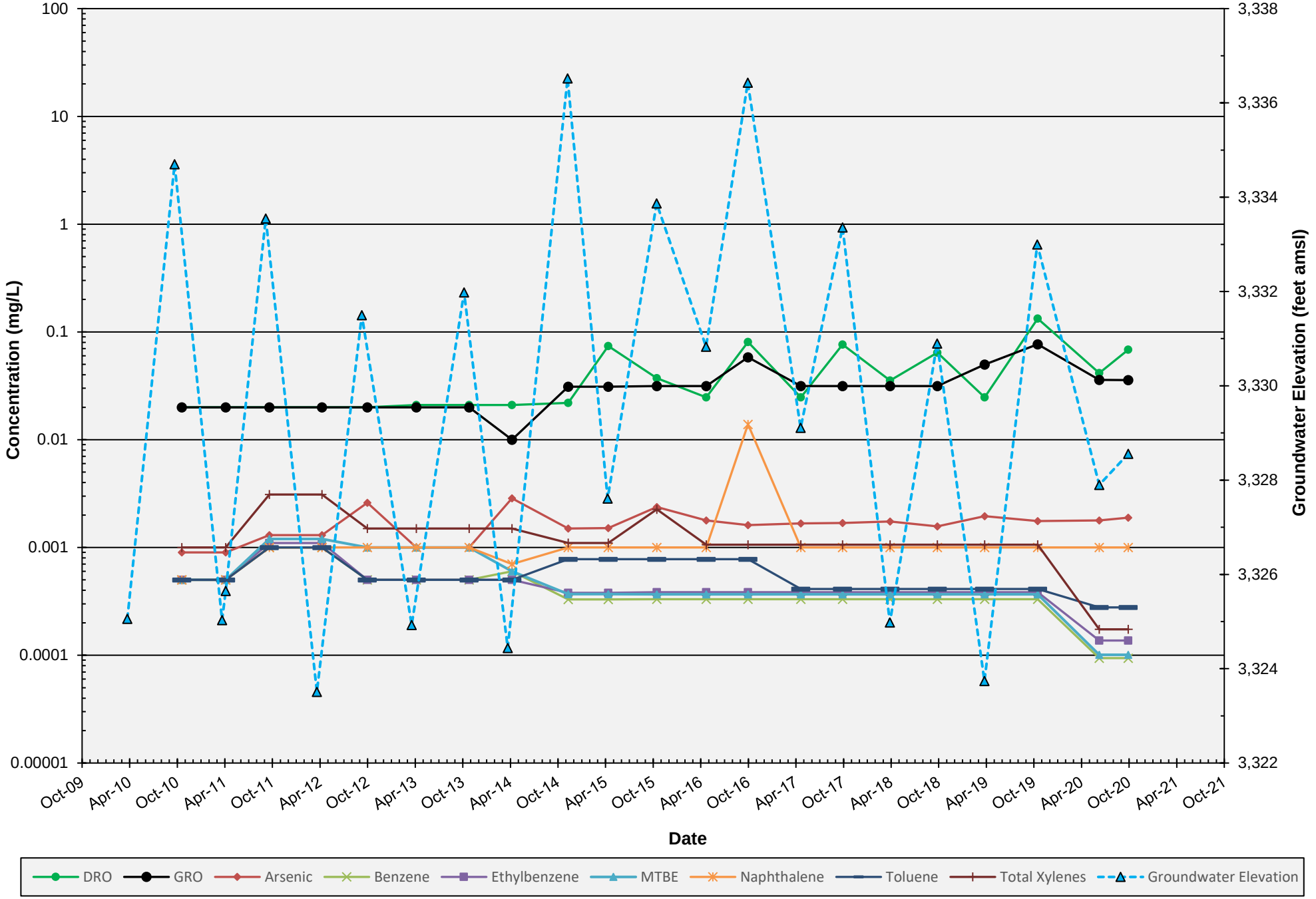
Field East of Refinery



KWB-12B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

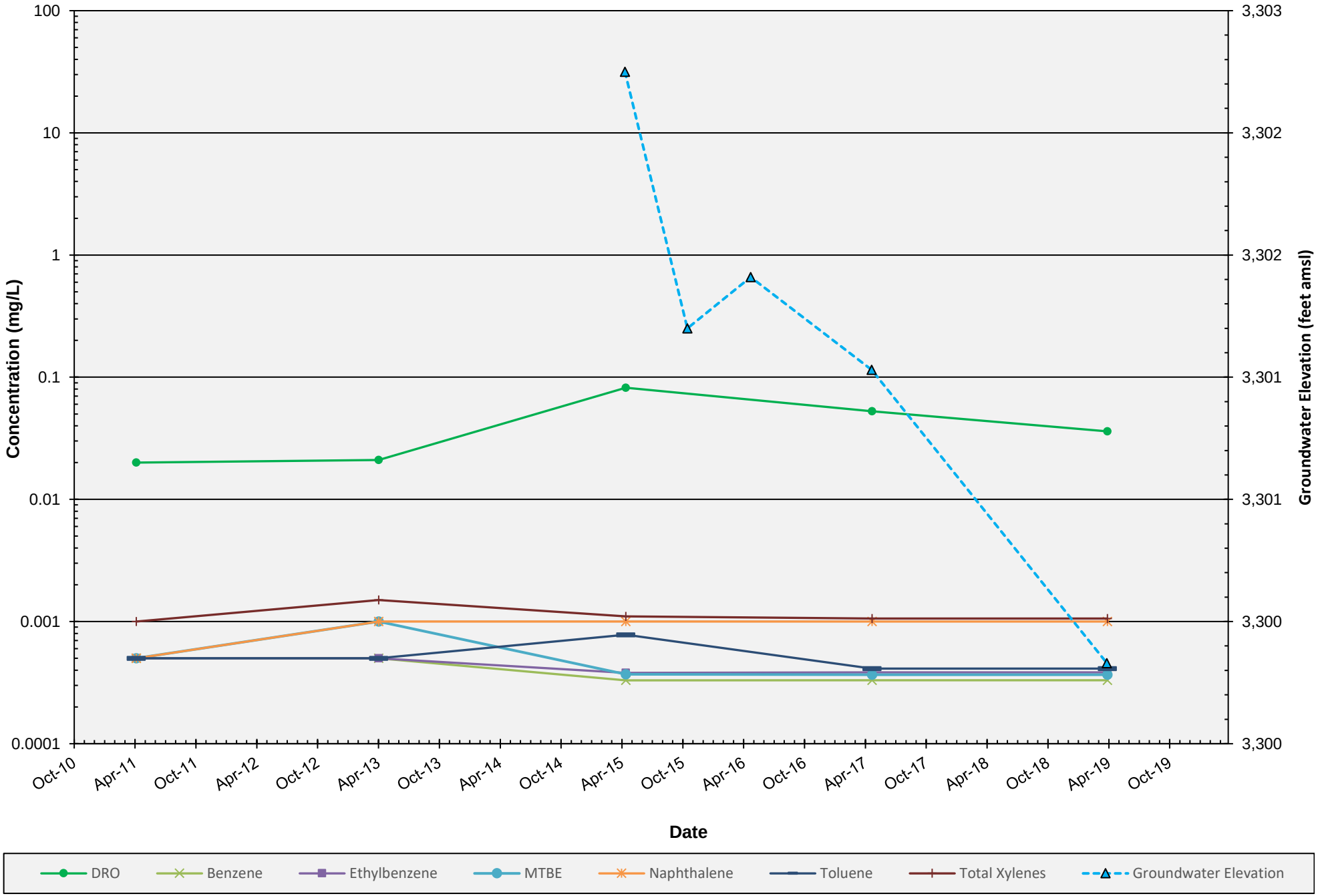
Field East of Refinery



KWB-P4: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

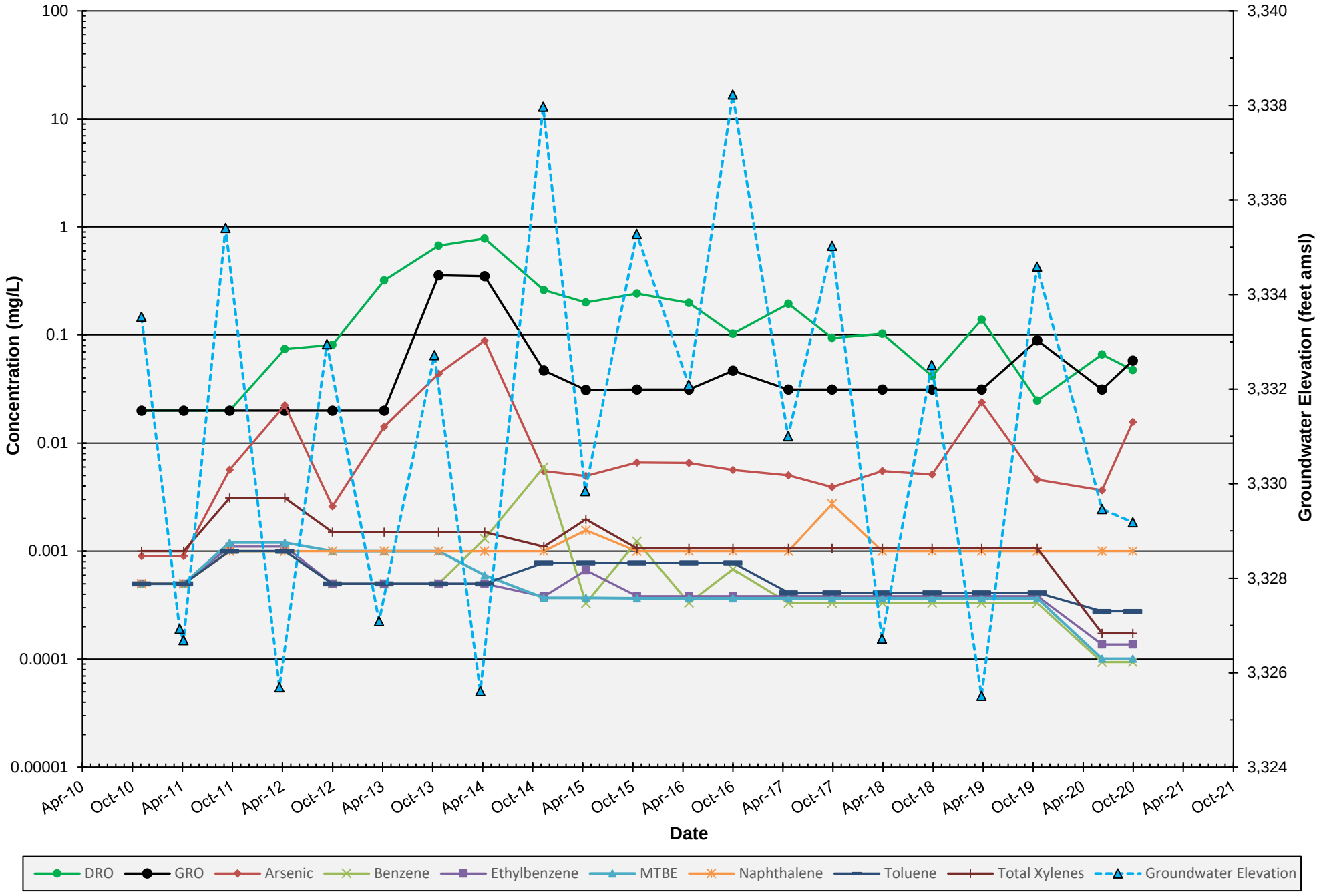
Field East of Refinery



MW-57: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

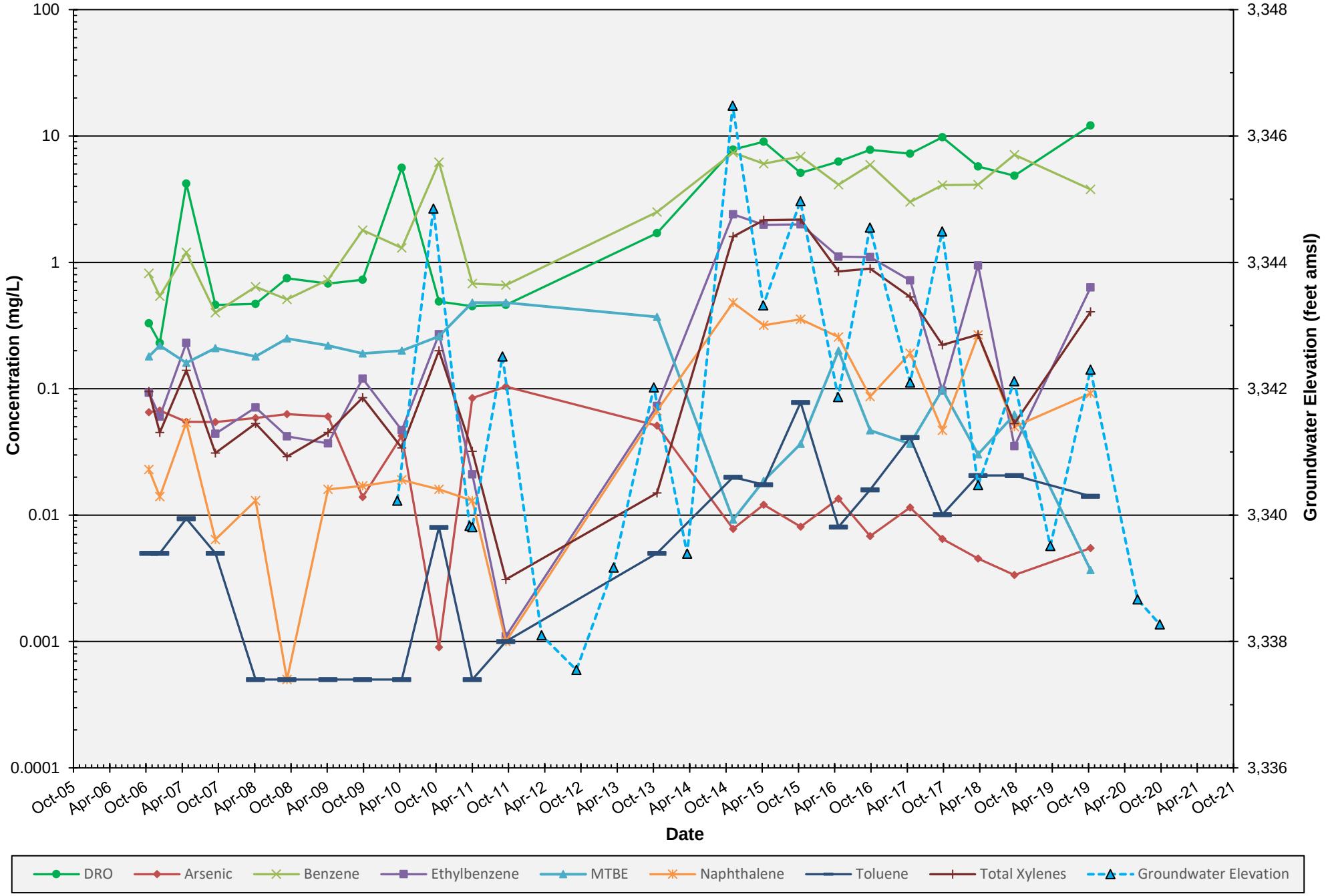
Field East of Refinery



MW-58: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

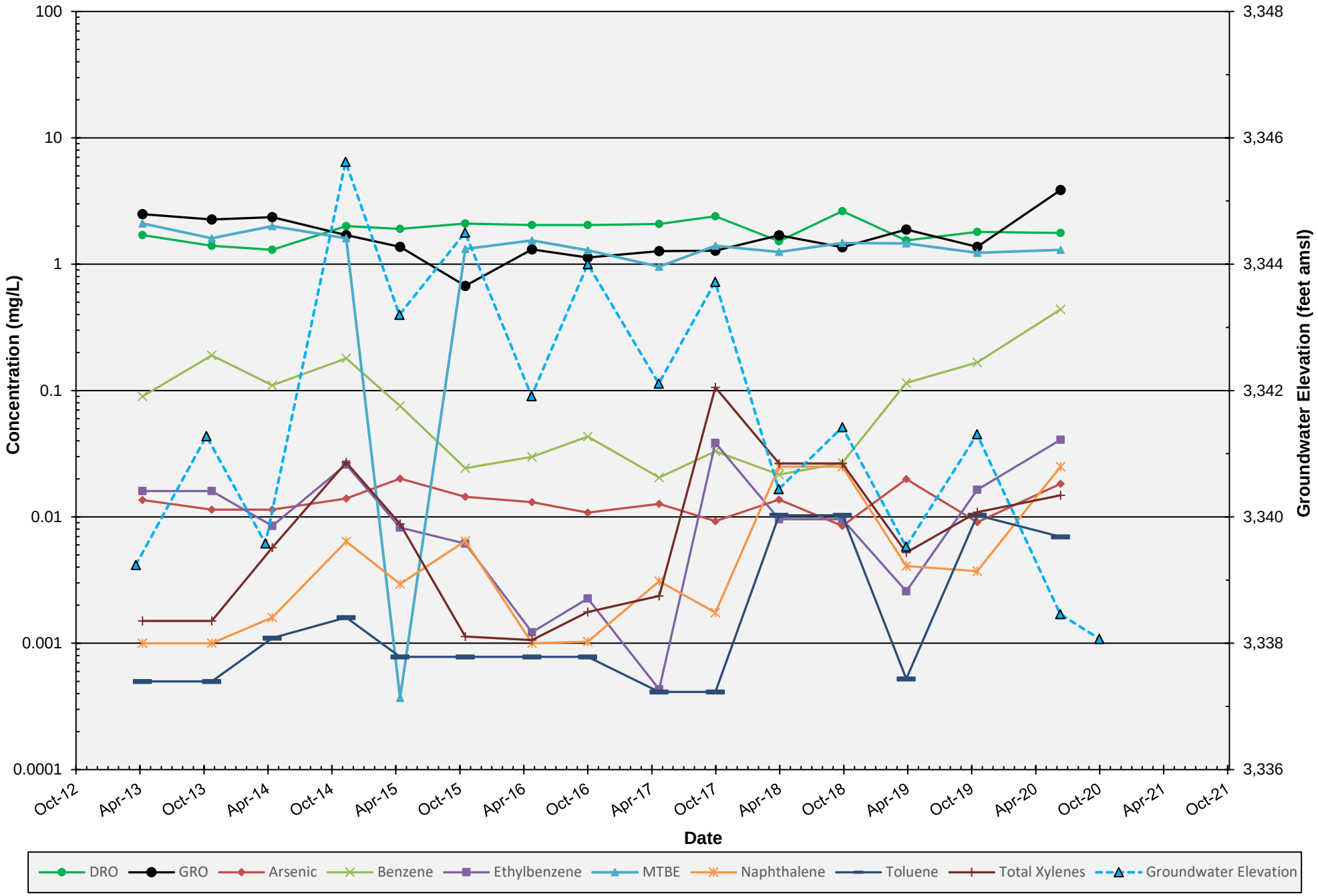
Field East of Refinery



MW-111: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

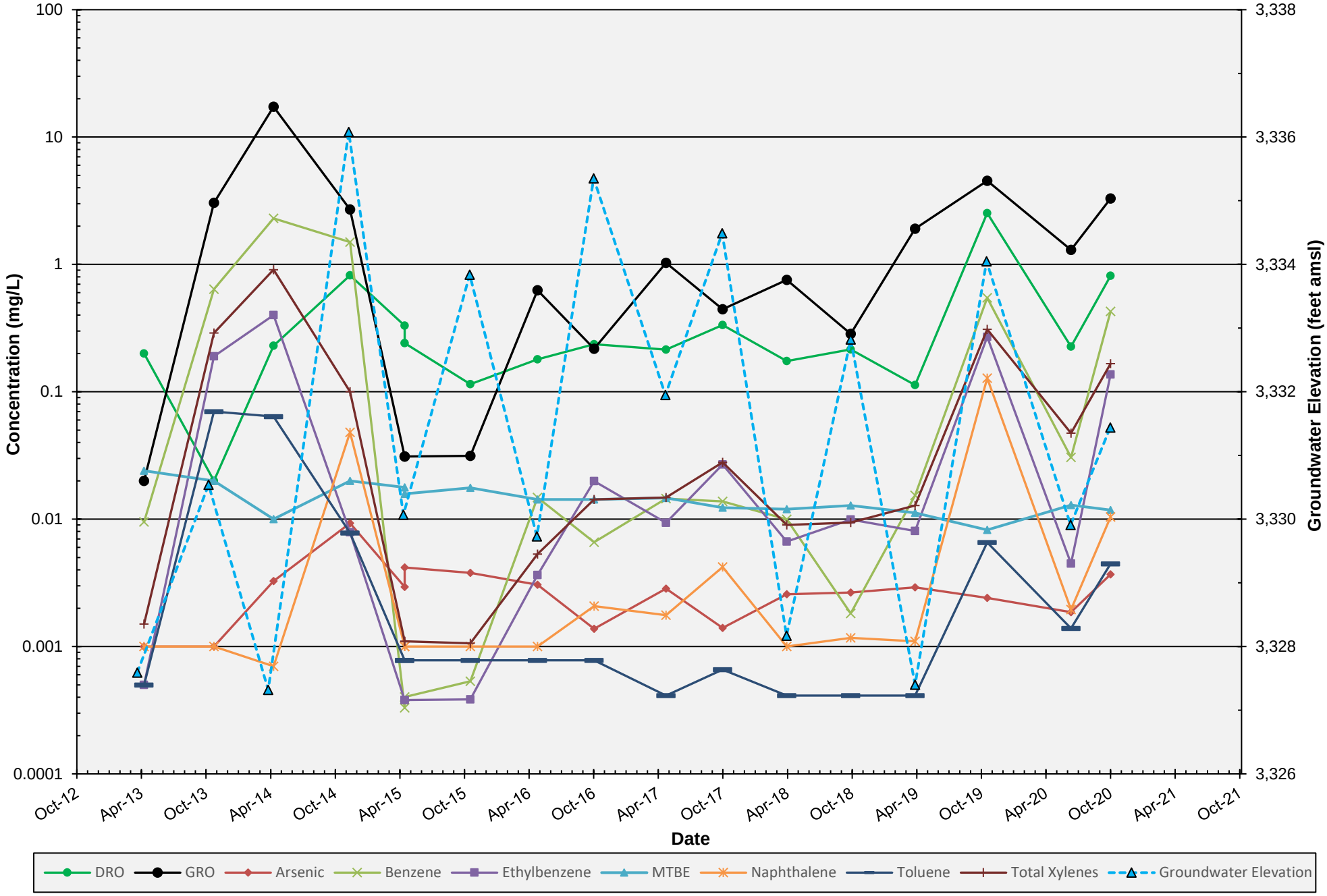
Field East of Refinery



MW-113: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

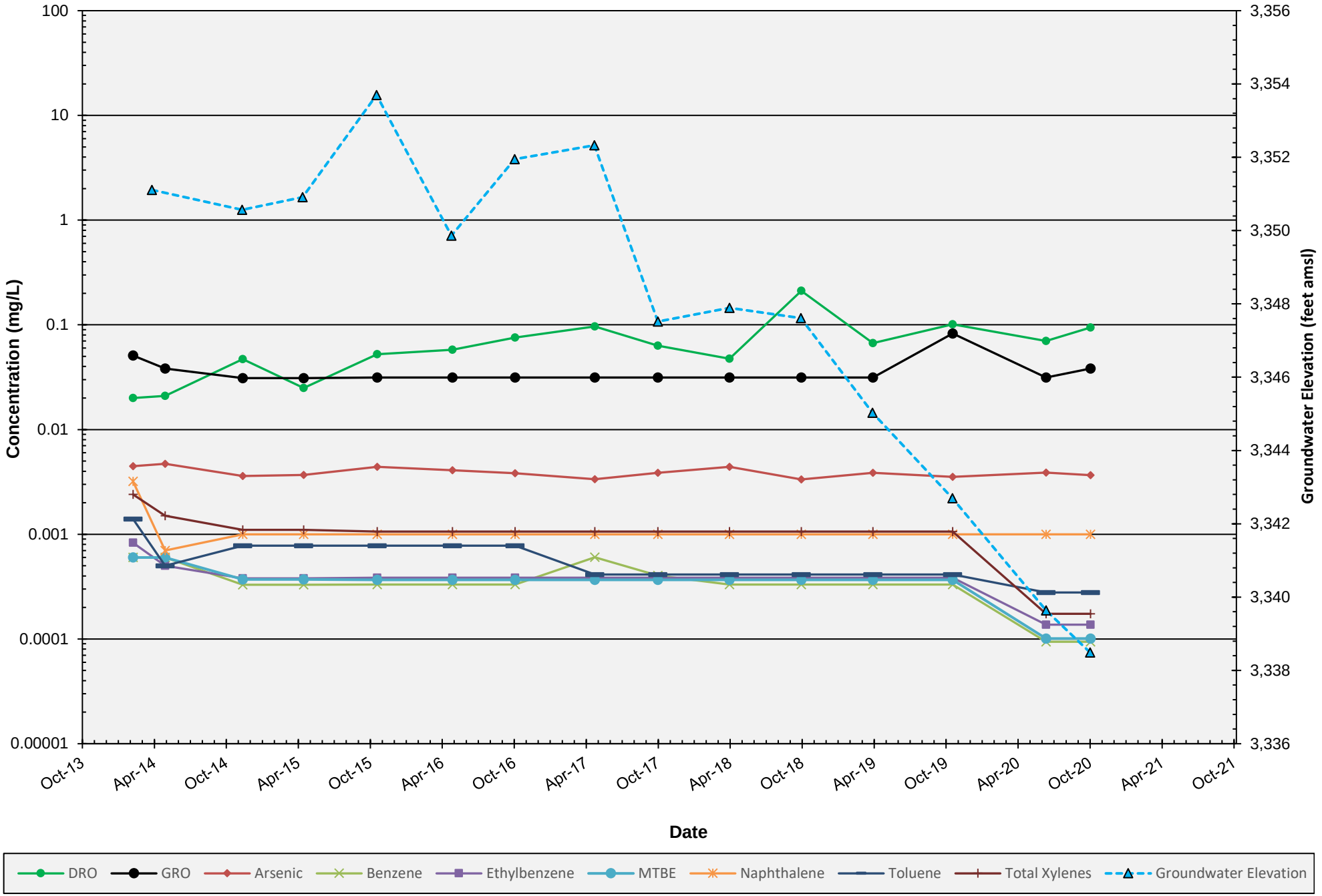
Field East of Refinery



MW-125: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

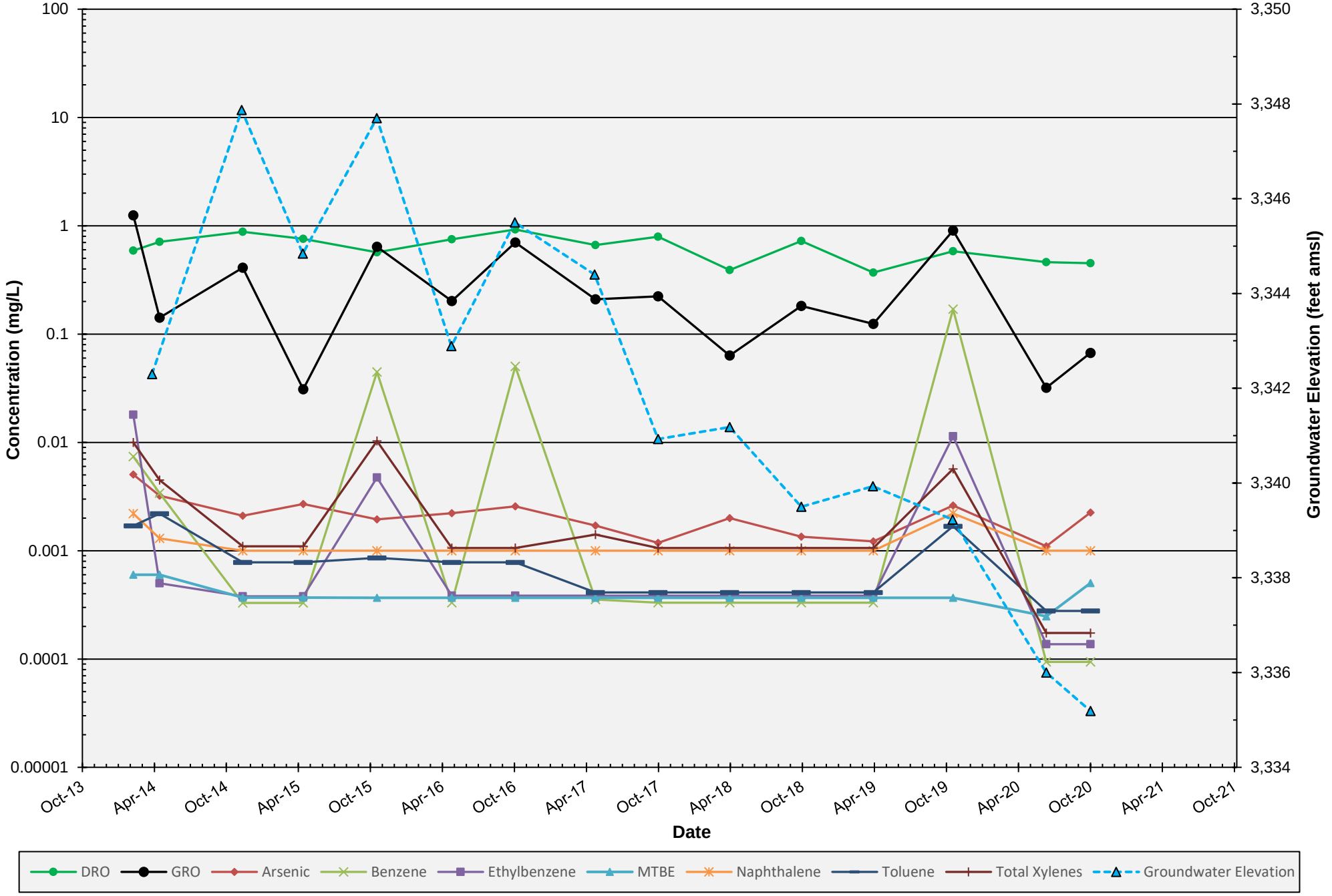
Field East of Refinery



MW-126A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

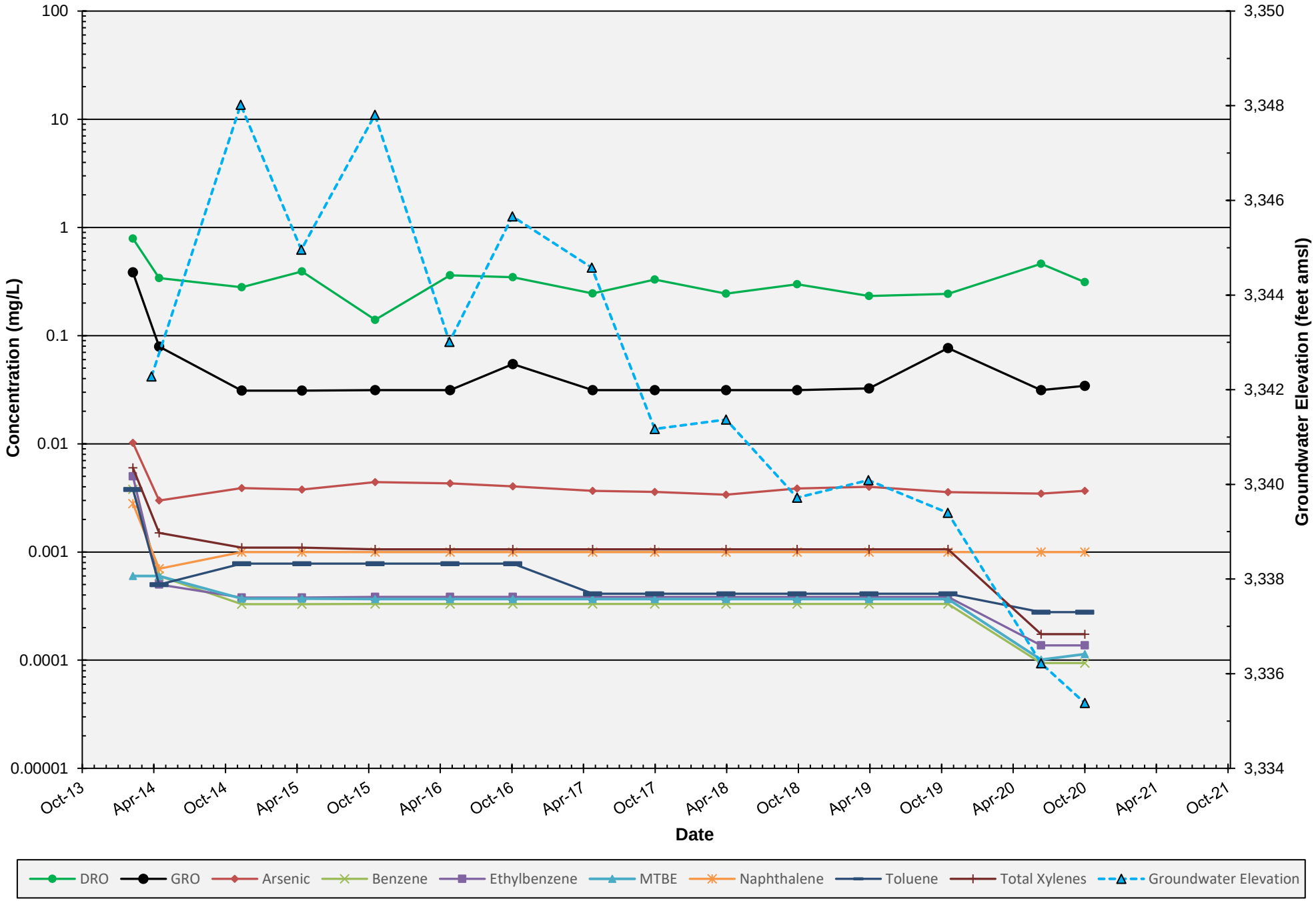
Field East of Refinery



MW-126B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

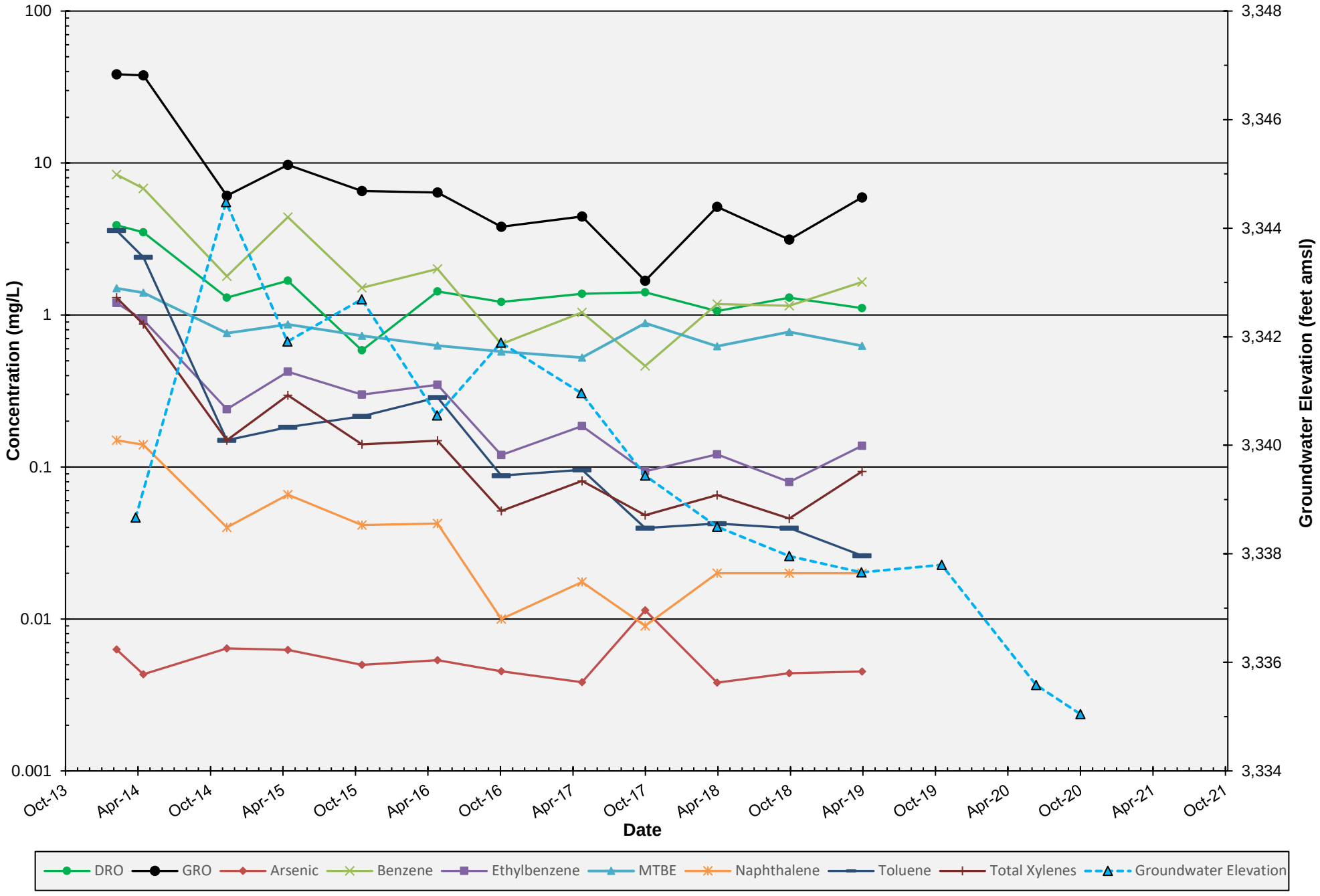
Field East of Refinery



MW-127: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

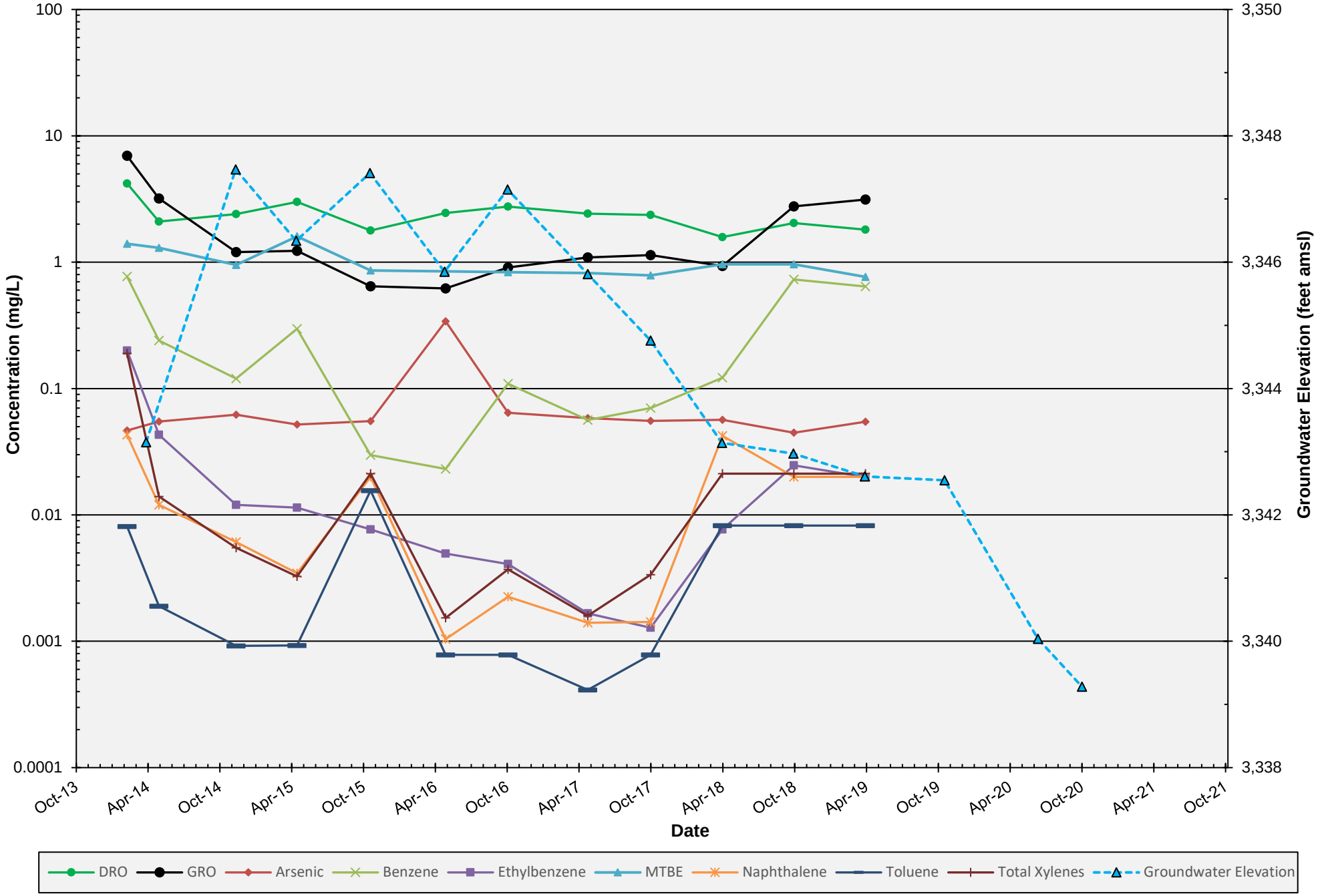
Field East of Refinery



MW-128: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

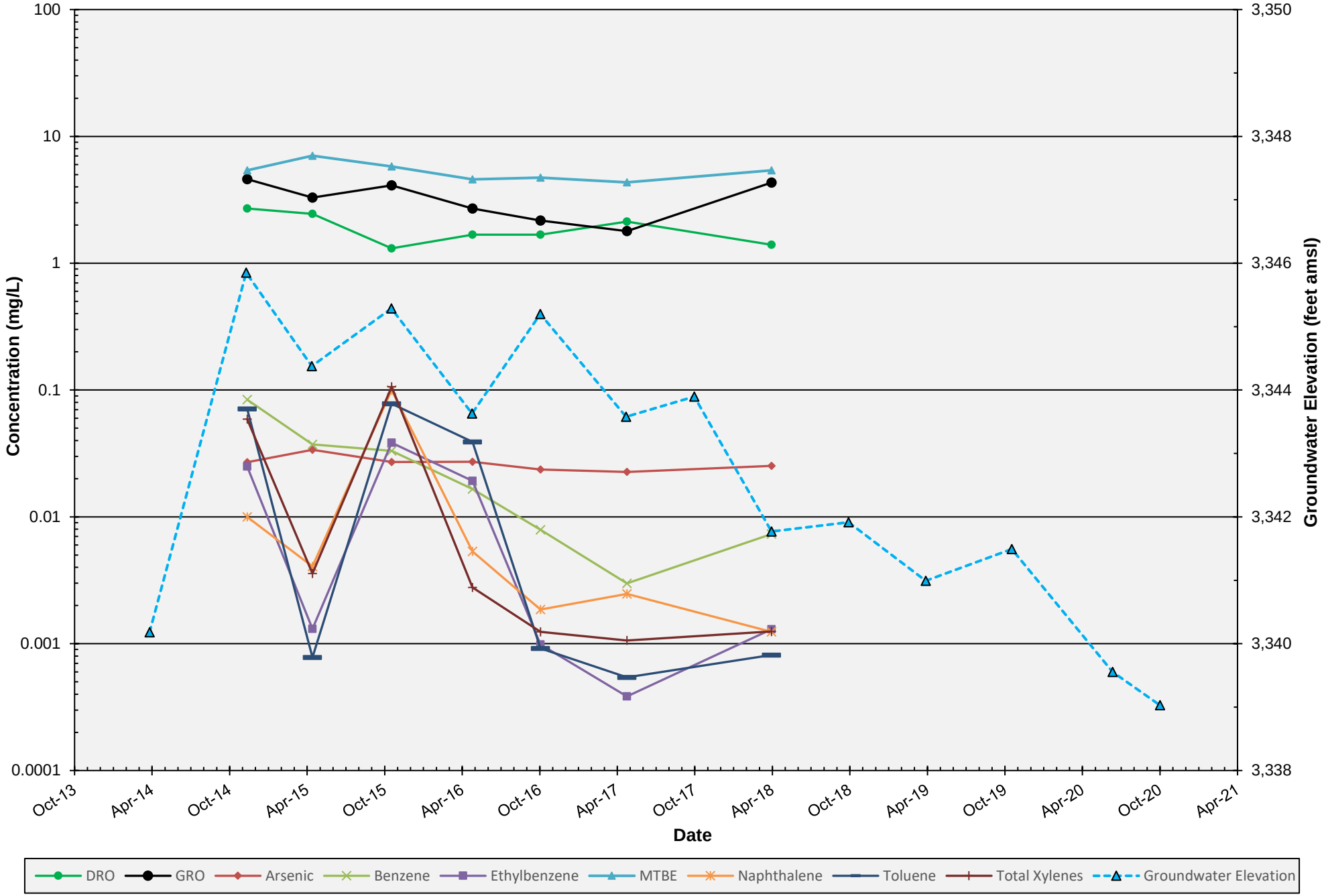
Field East of Refinery



MW-129: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

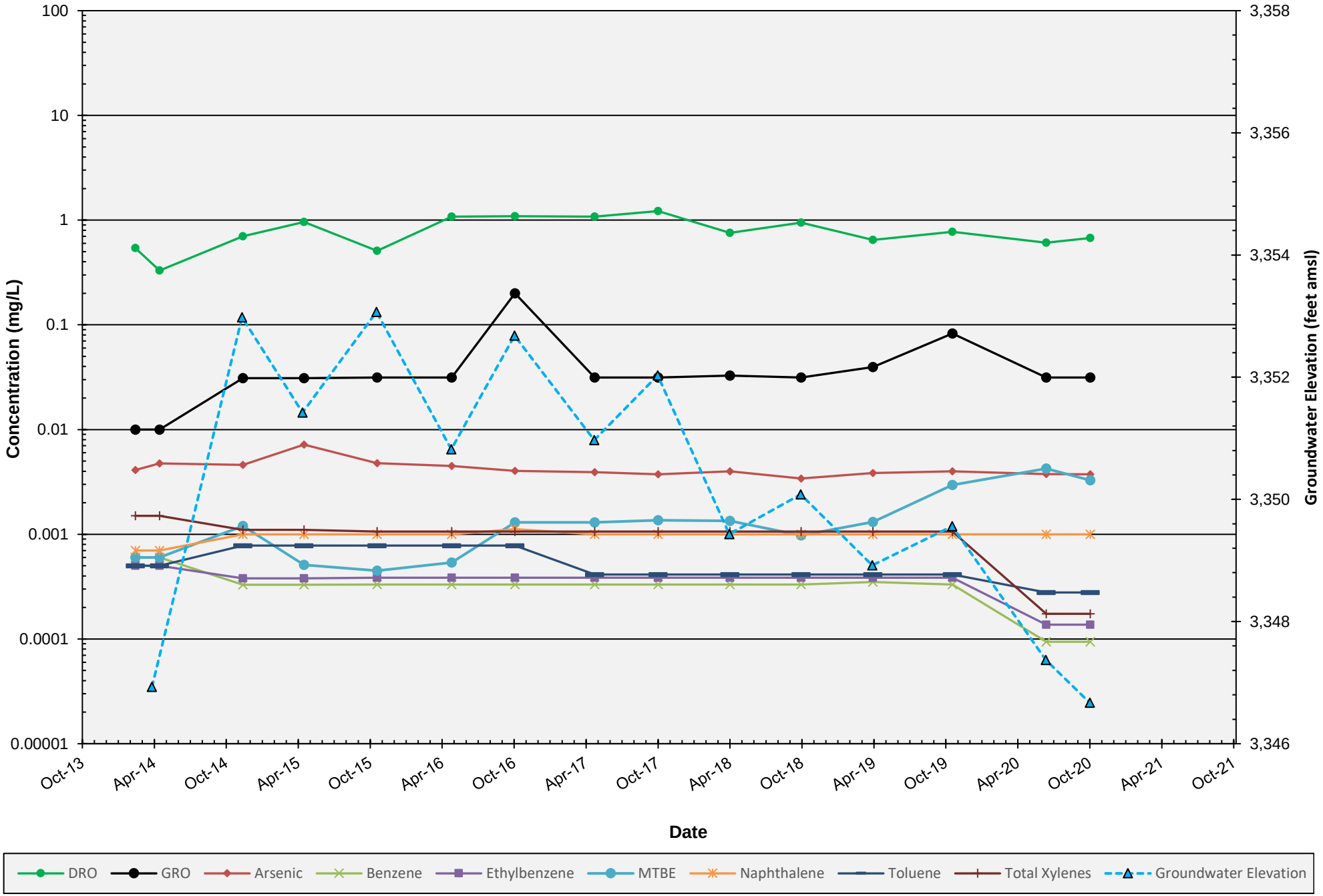
Field East of Refinery



MW-130: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

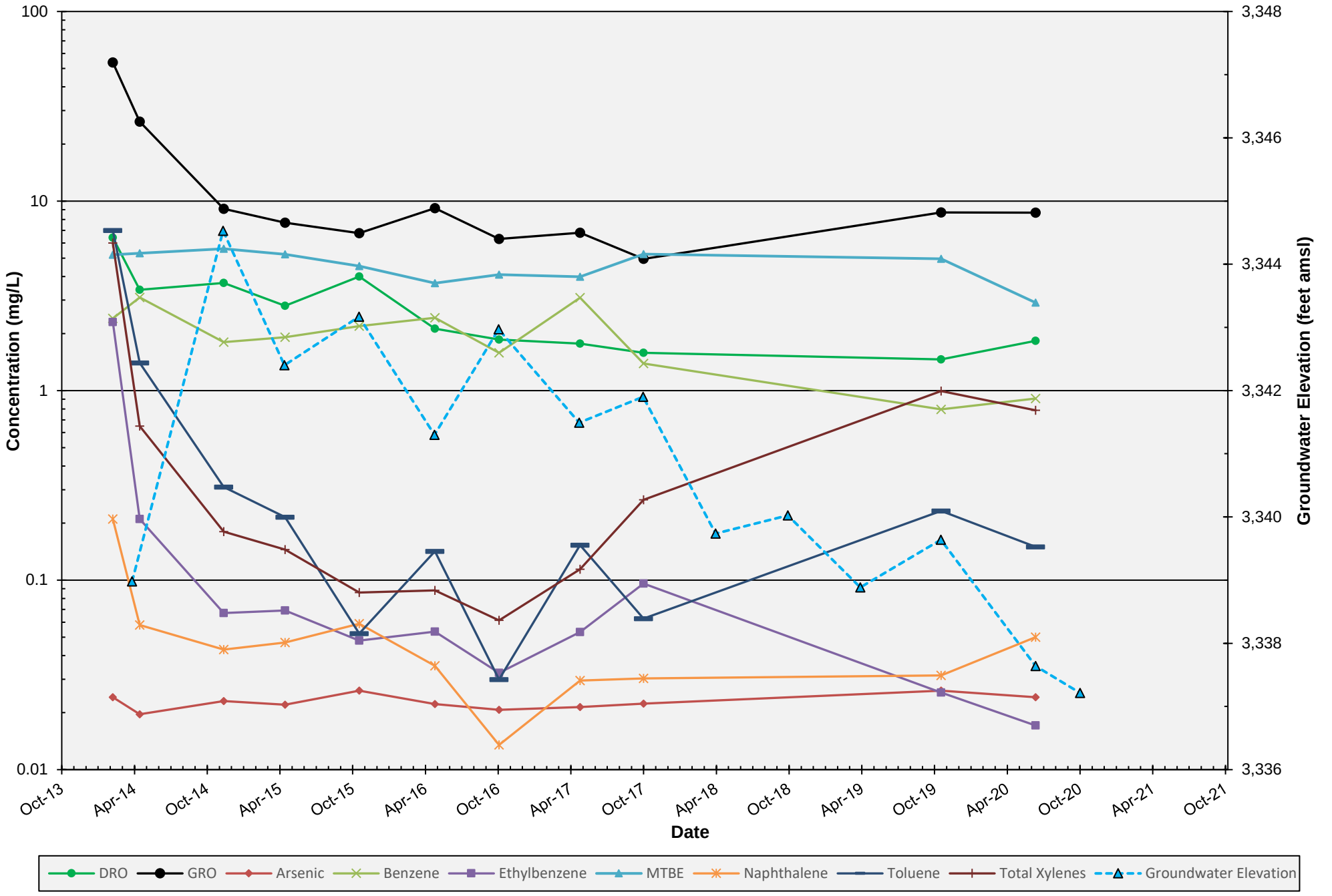
Field East of Refinery



MW-131: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

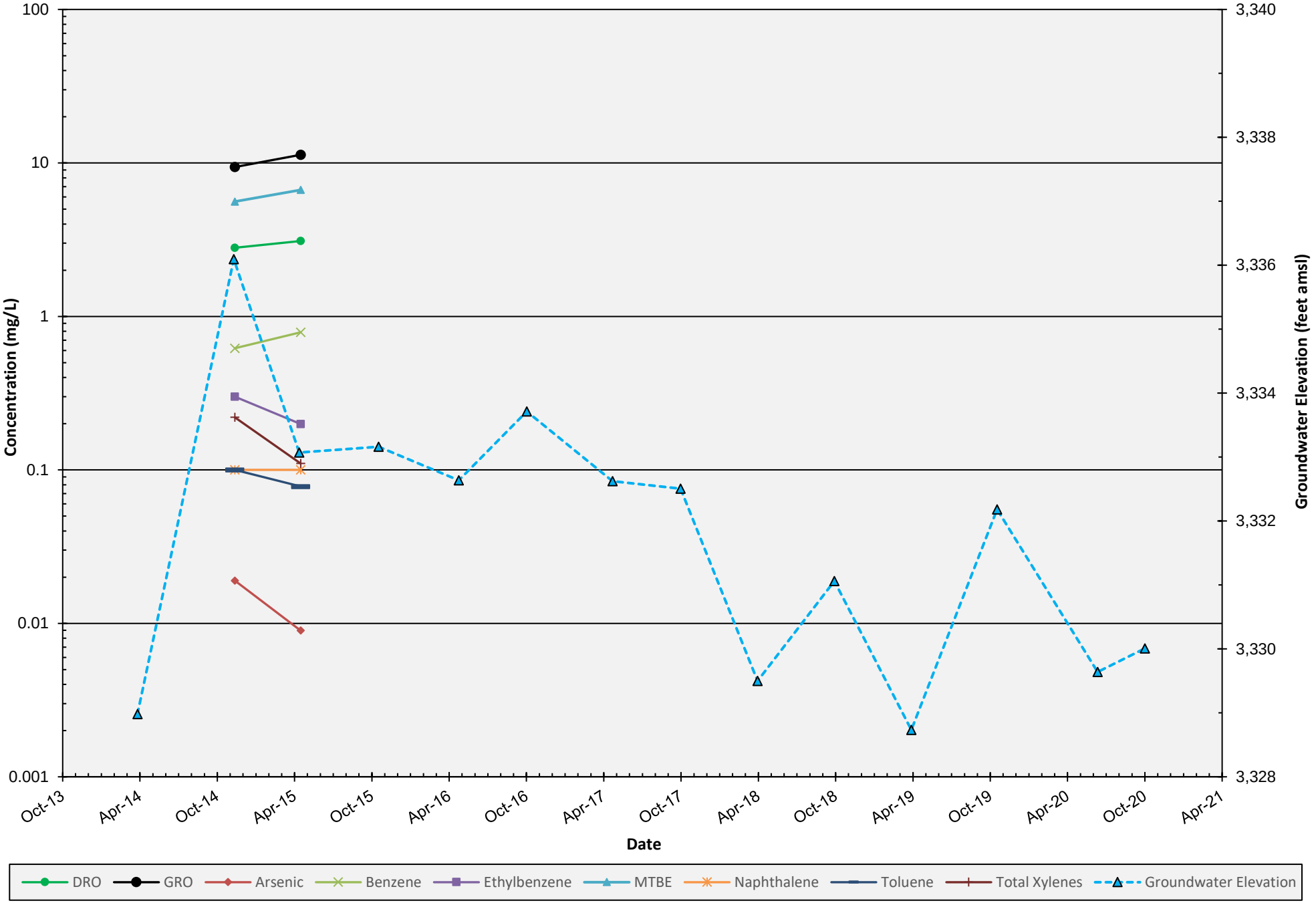
Field East of Refinery



MW-133: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

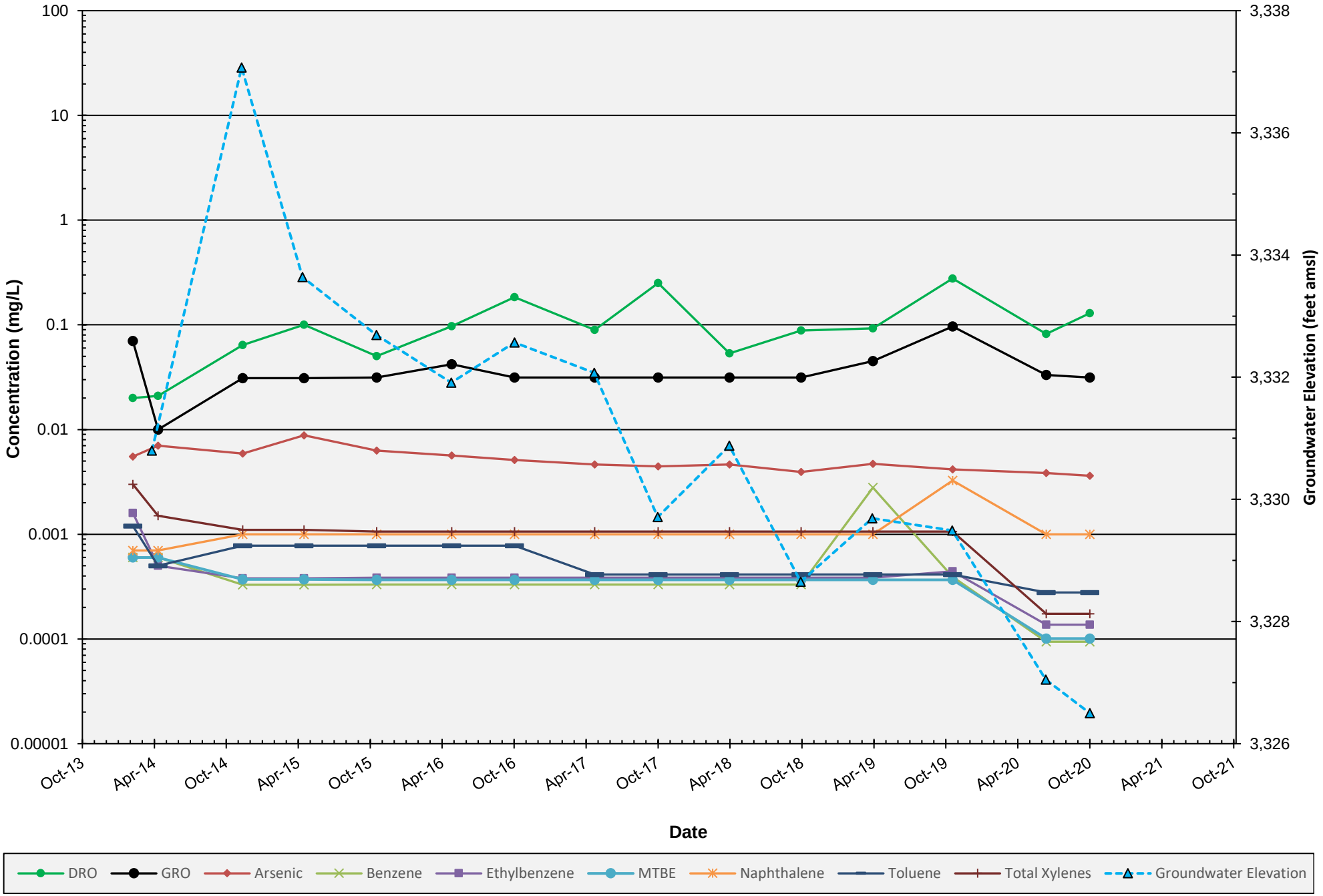
Field East of Refinery



MW-134: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

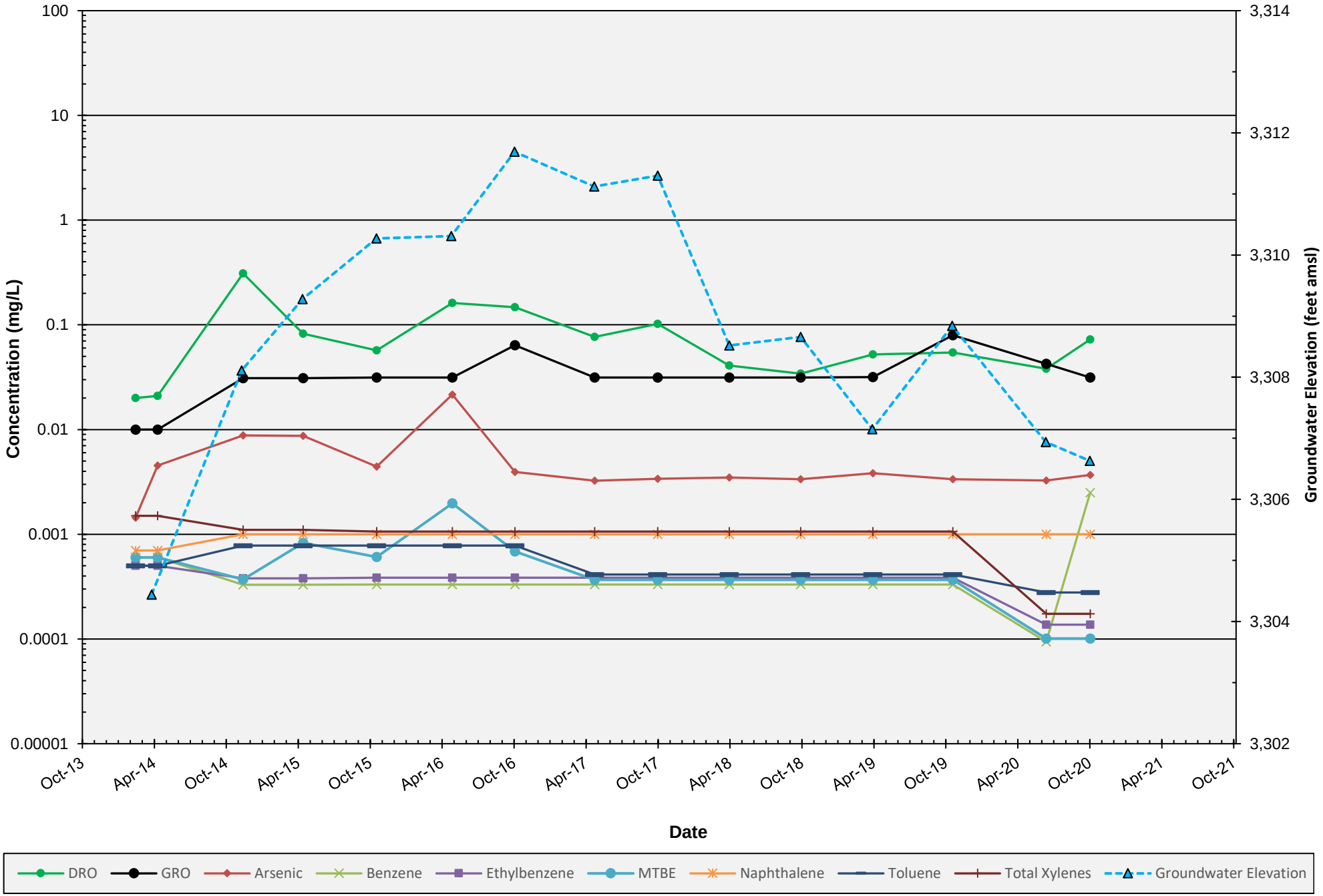
Field East of Refinery



MW-135: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

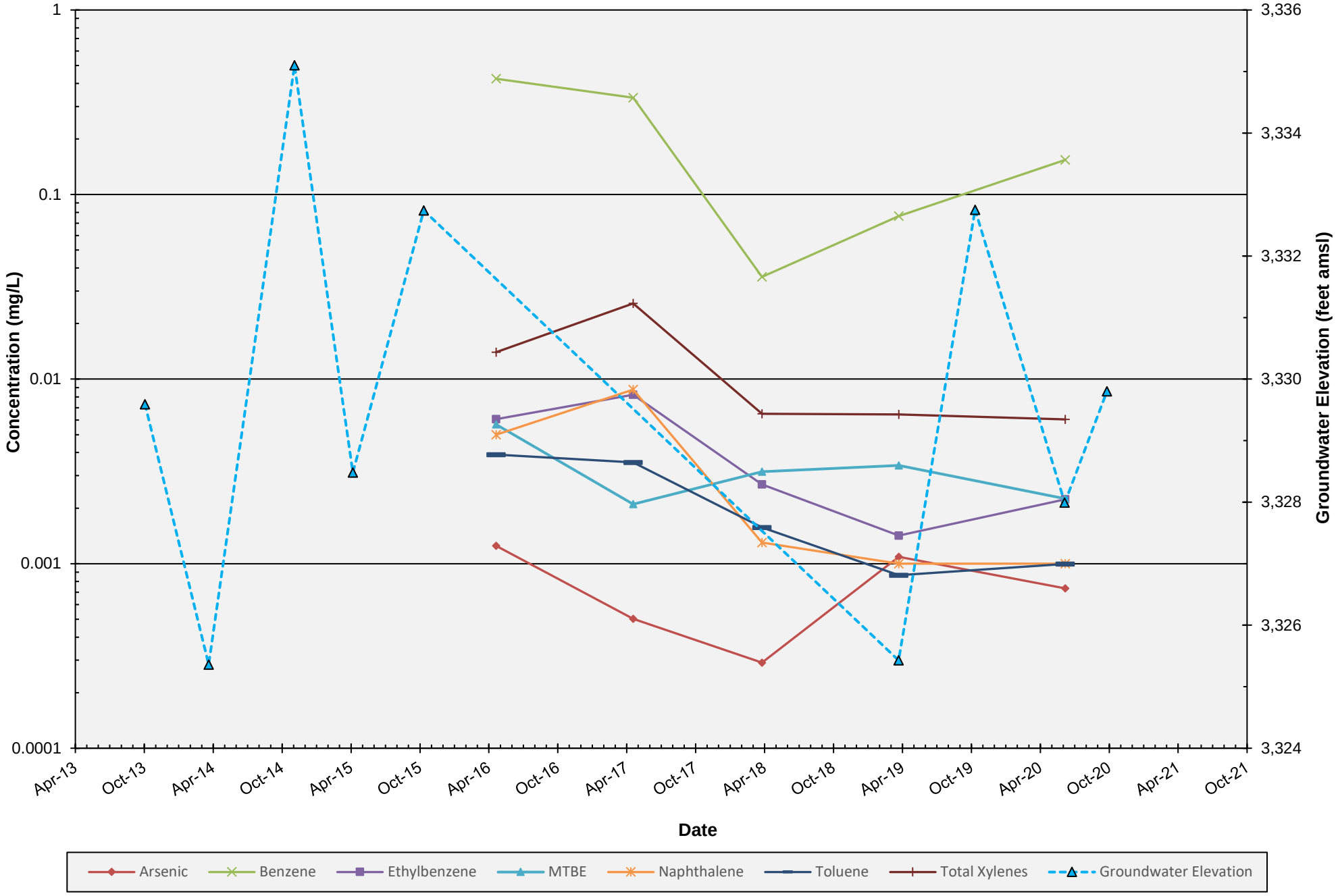
Field East of Refinery



RW-12R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

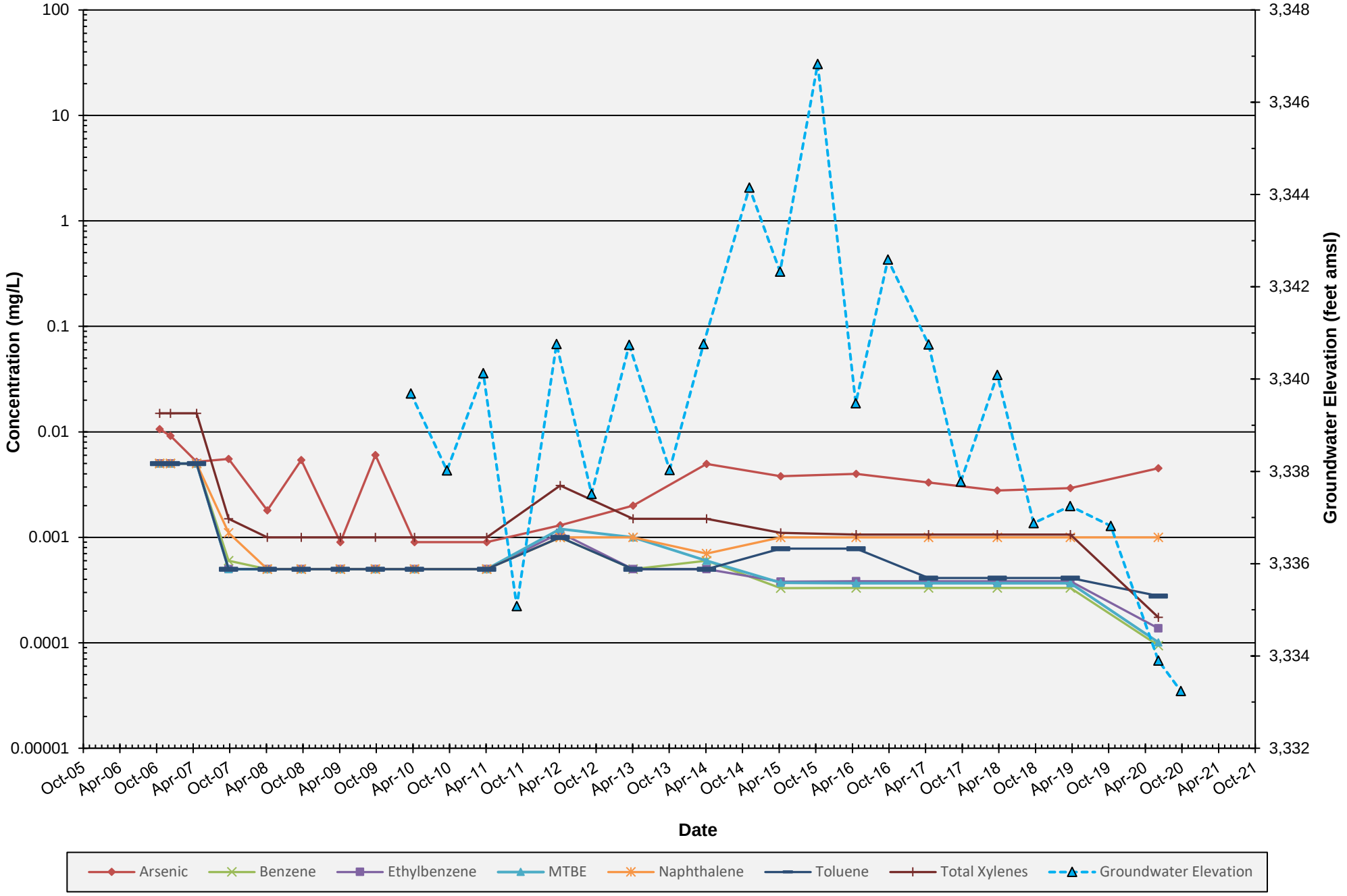
Field East of Refinery



RW-18A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

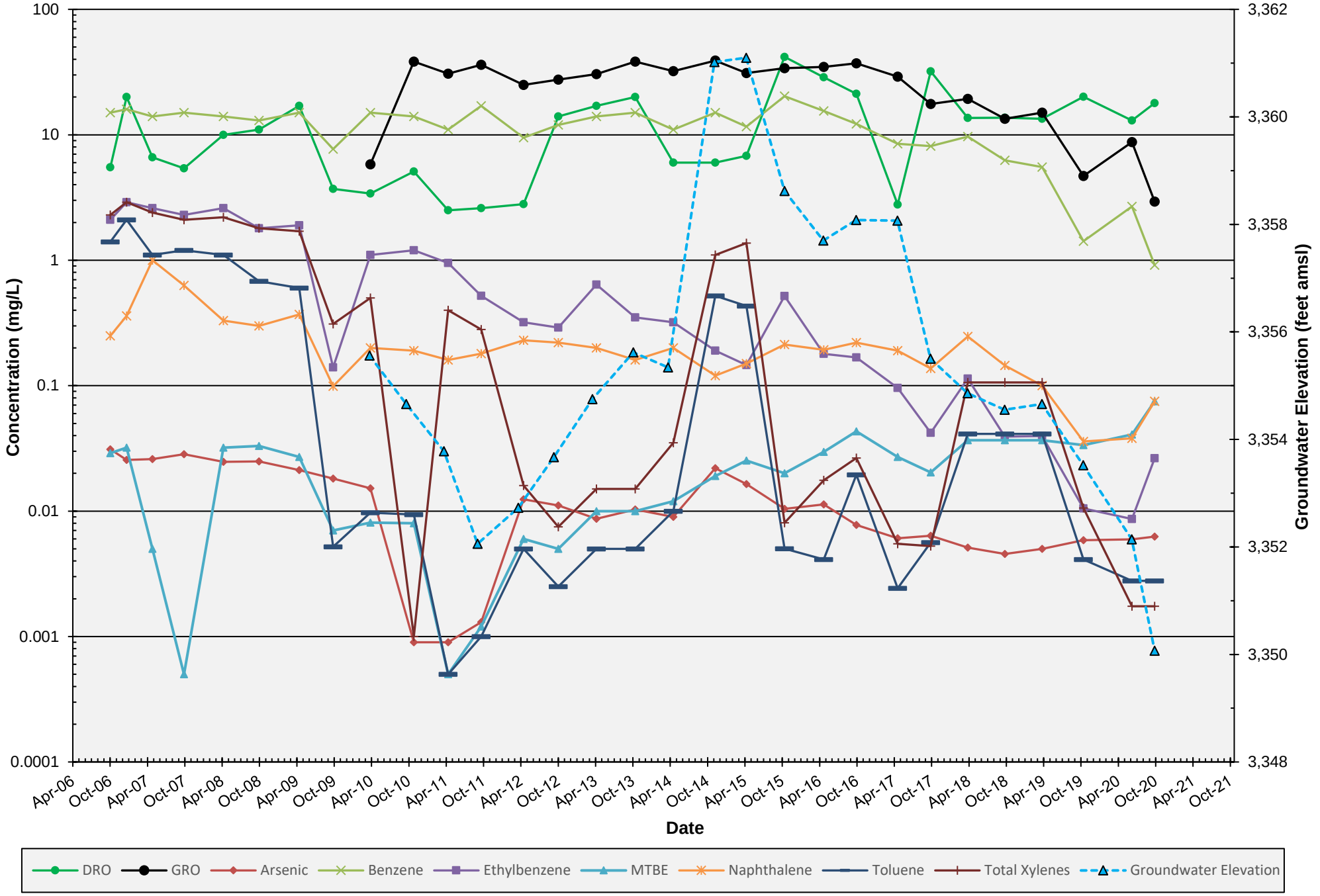
Field East of Refinery



MW-23: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

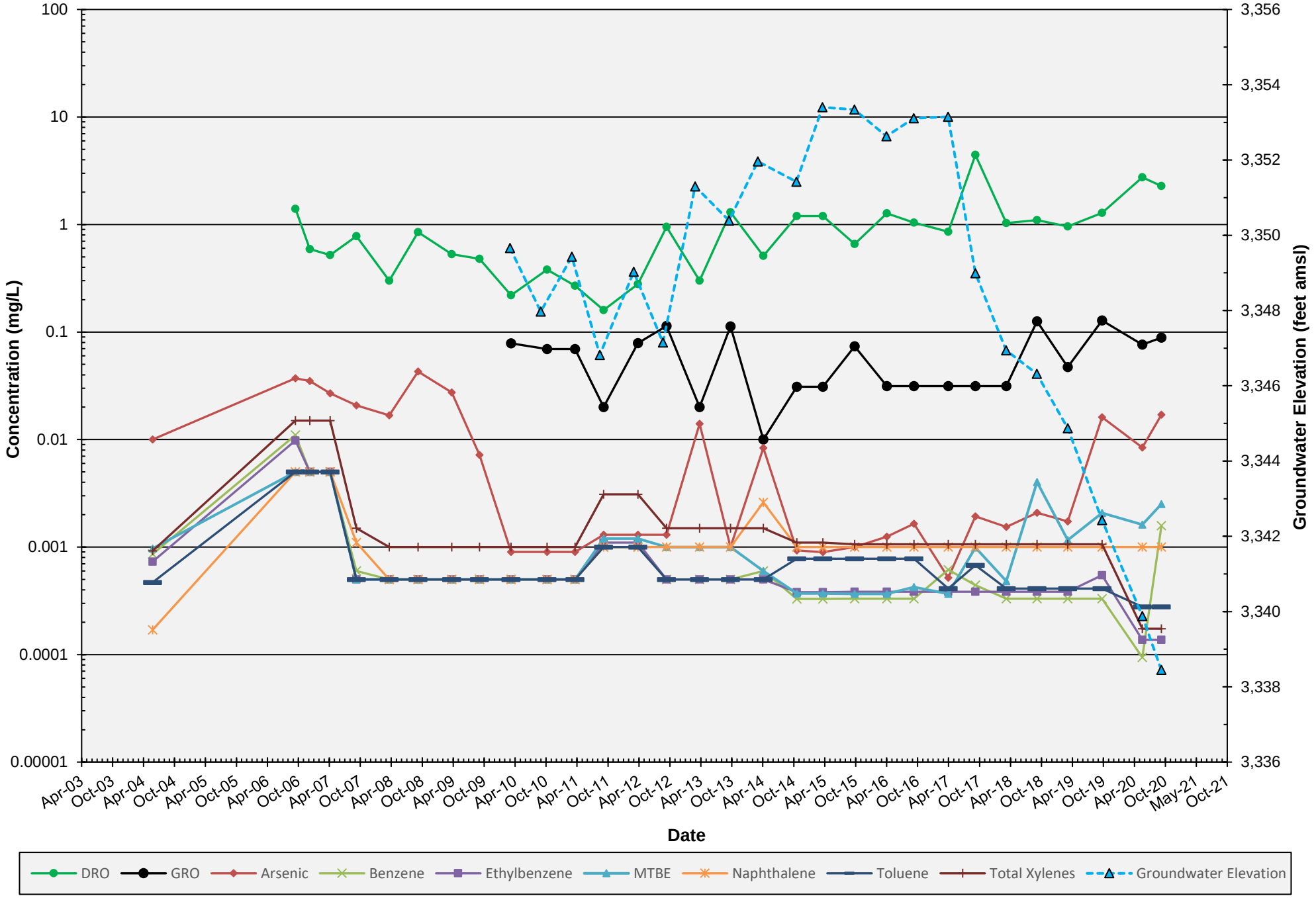
North Refinery Area



MW-29: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

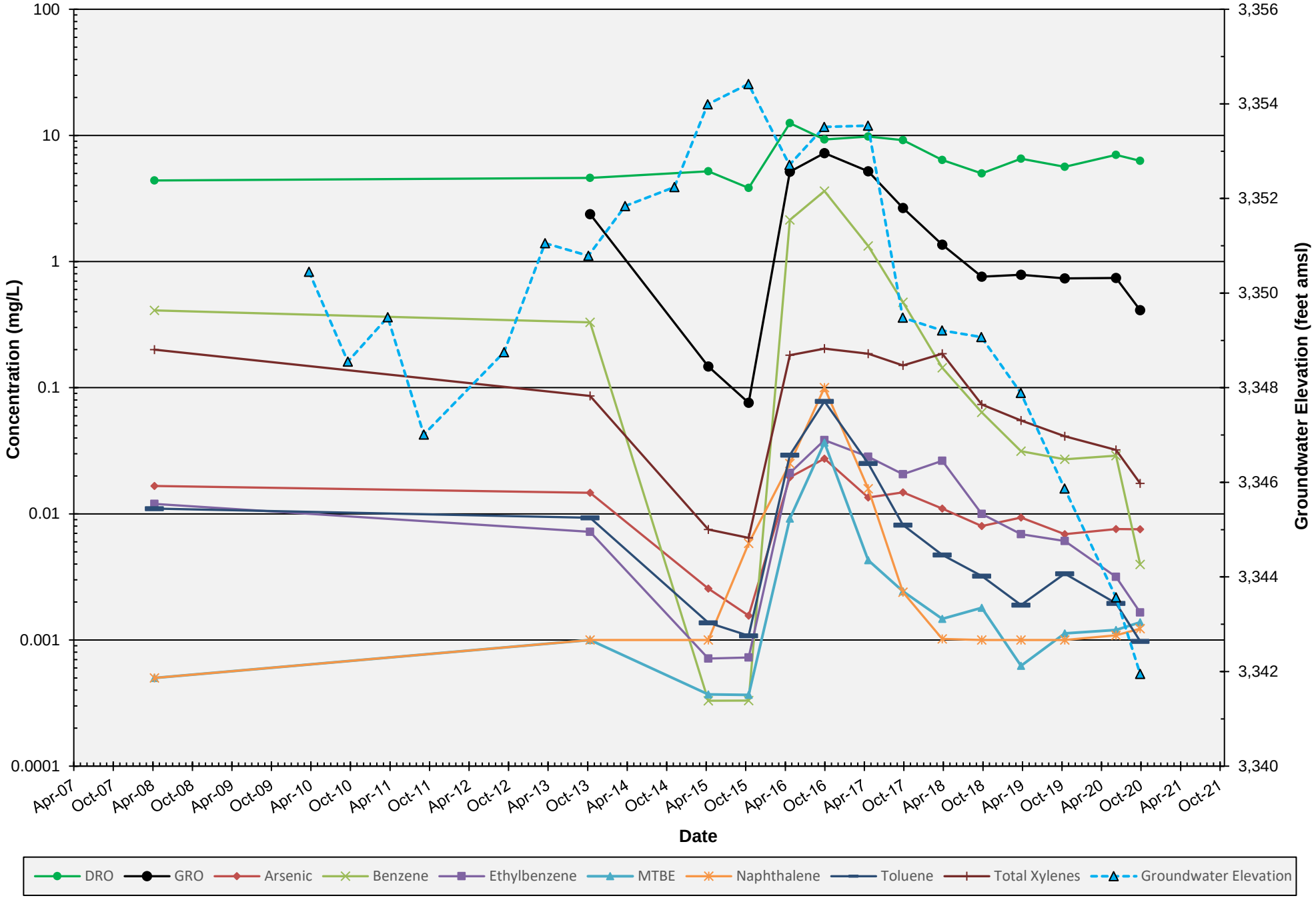
North Refinery Area



MW-39: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

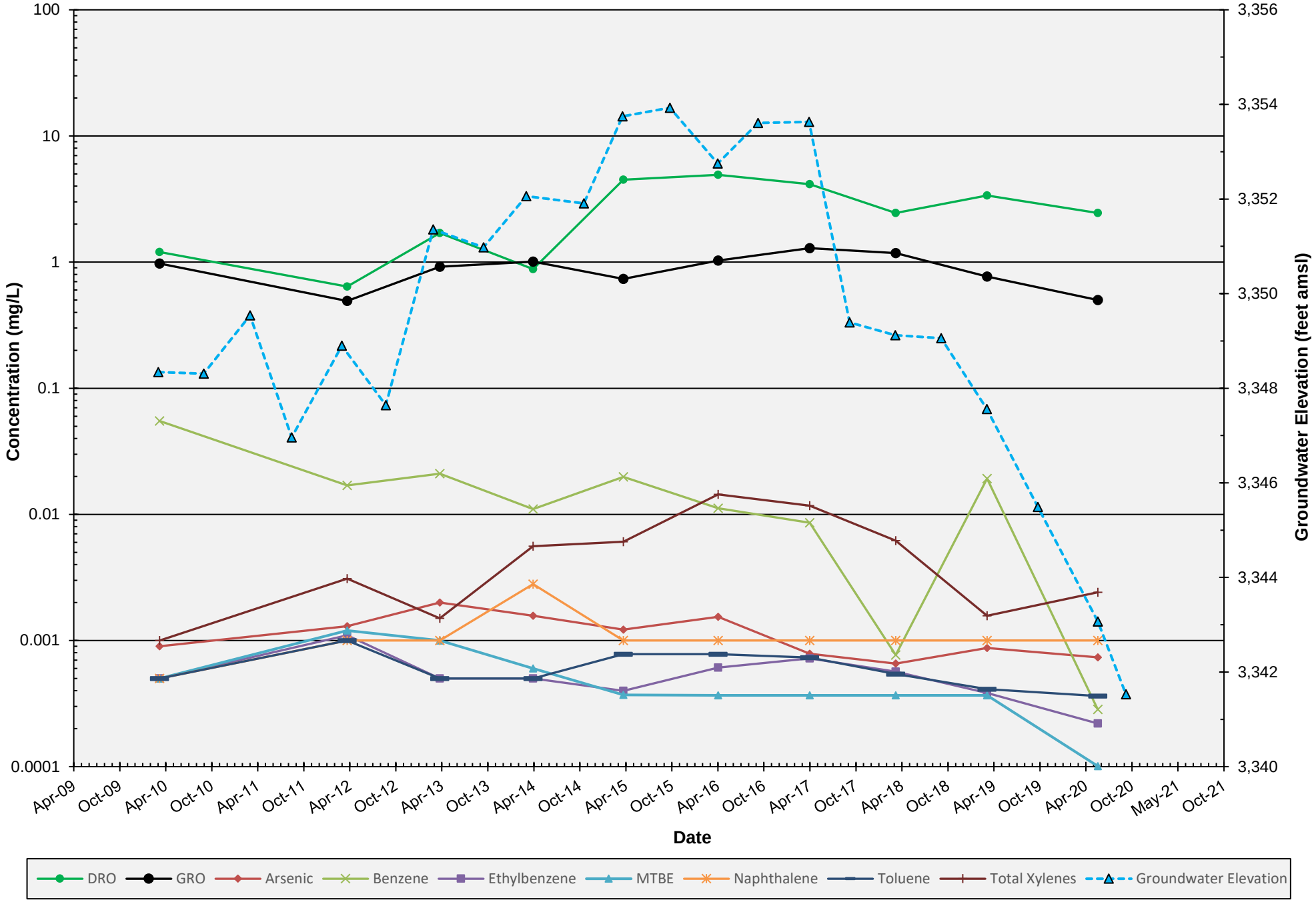
North Refinery Area



MW-40: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

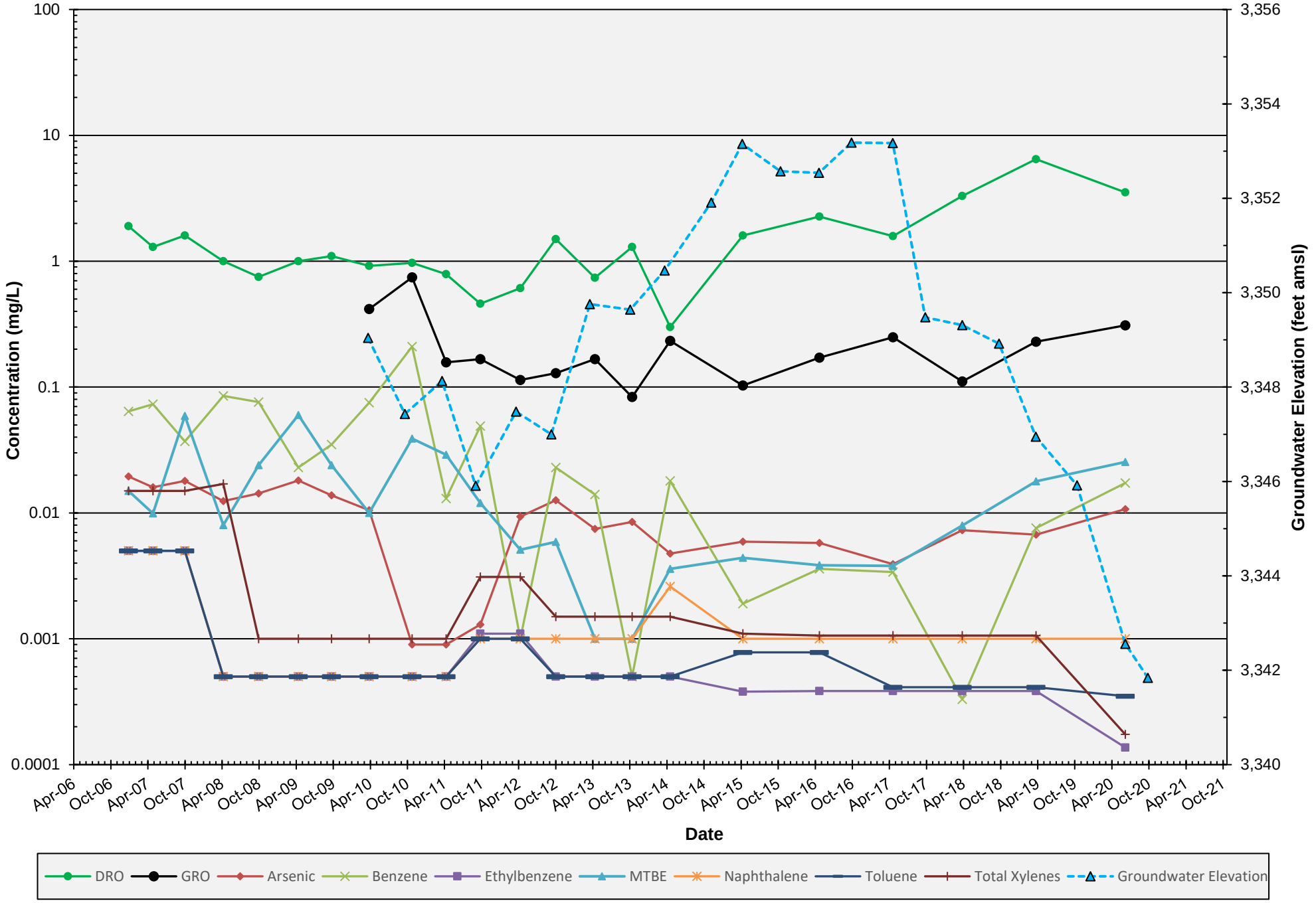
North Refinery Area



MW-41: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

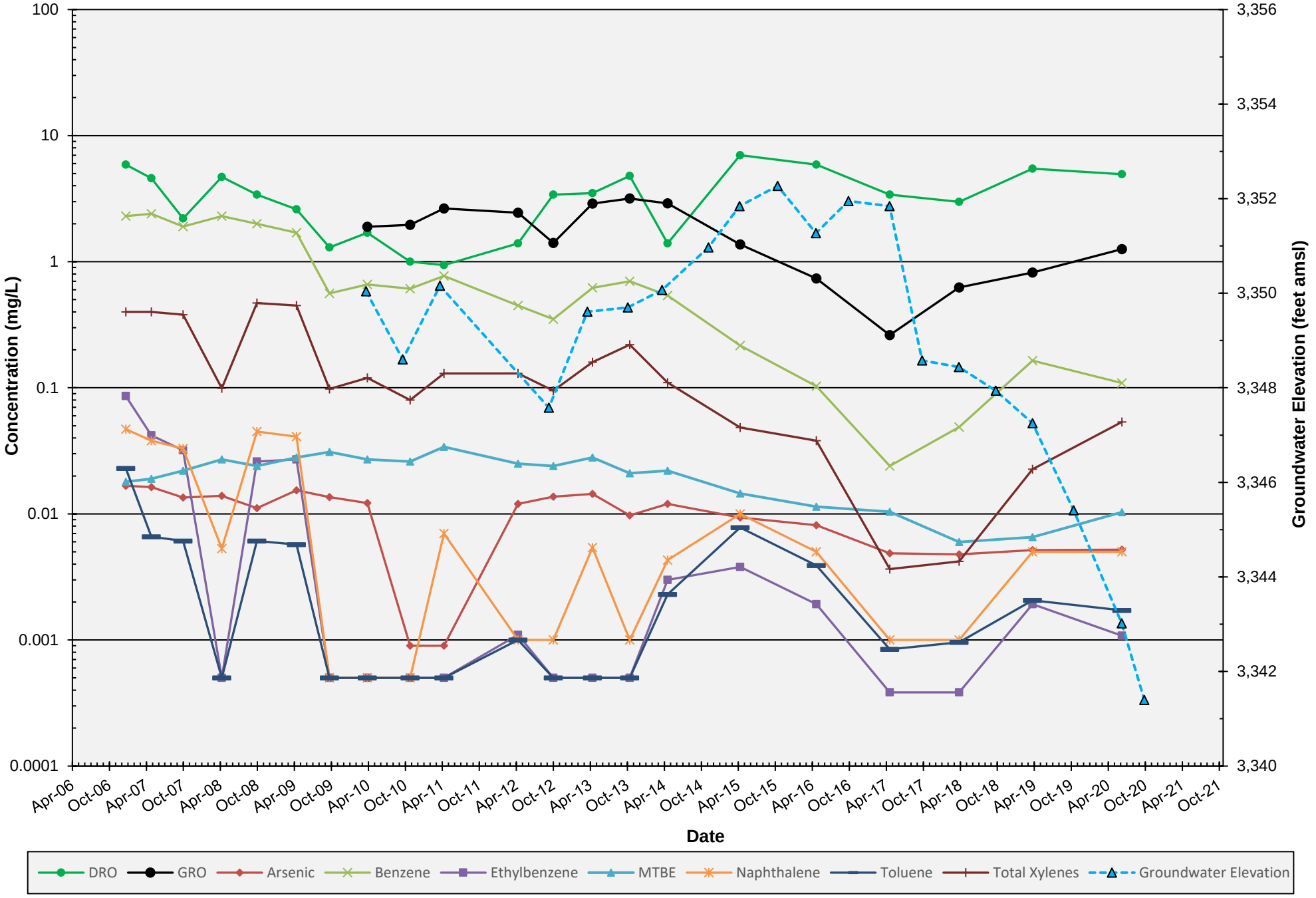
North Refinery Area



MW-42: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

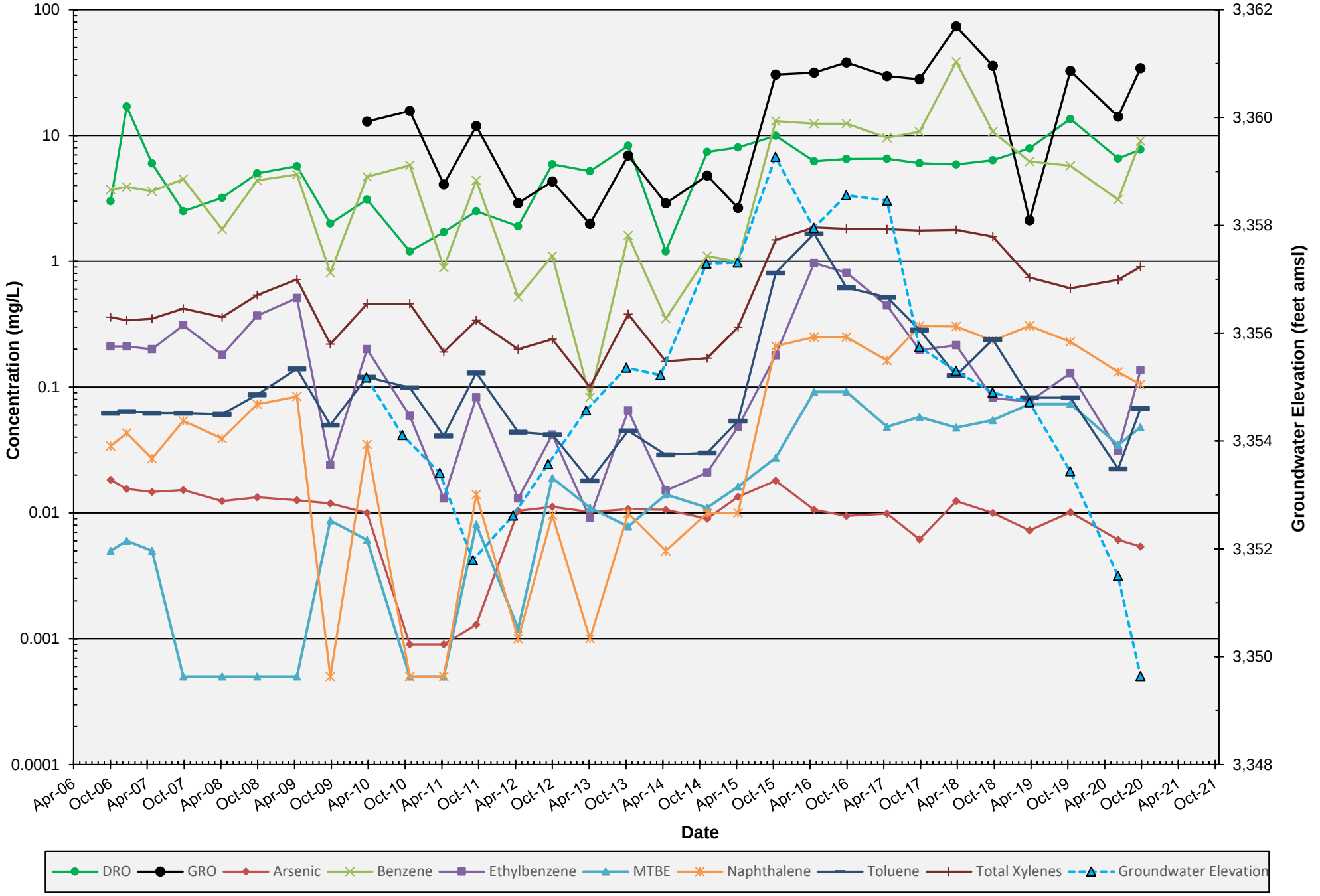
North Refinery Area



MW-43: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

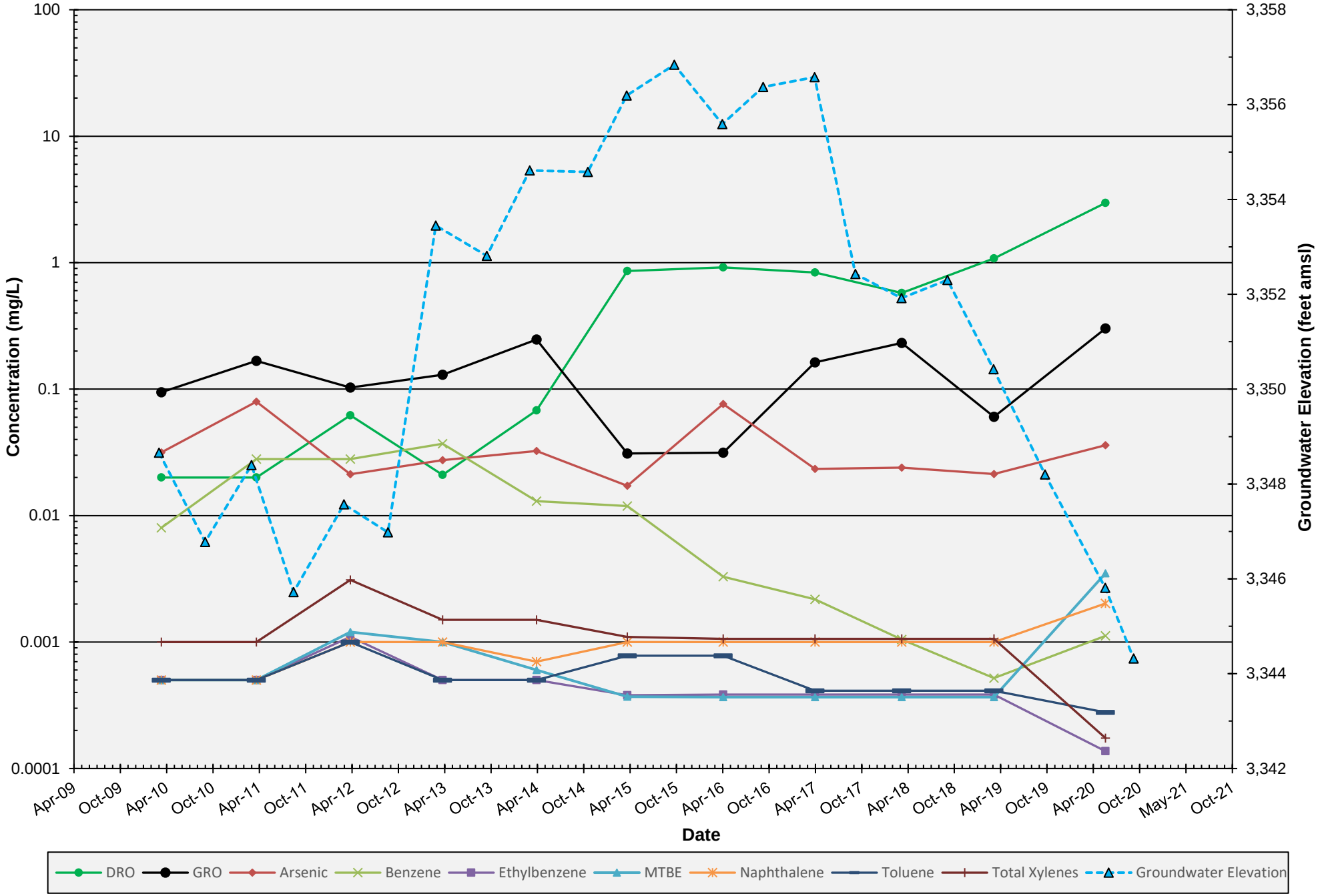
North Refinery Area



MW-59: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

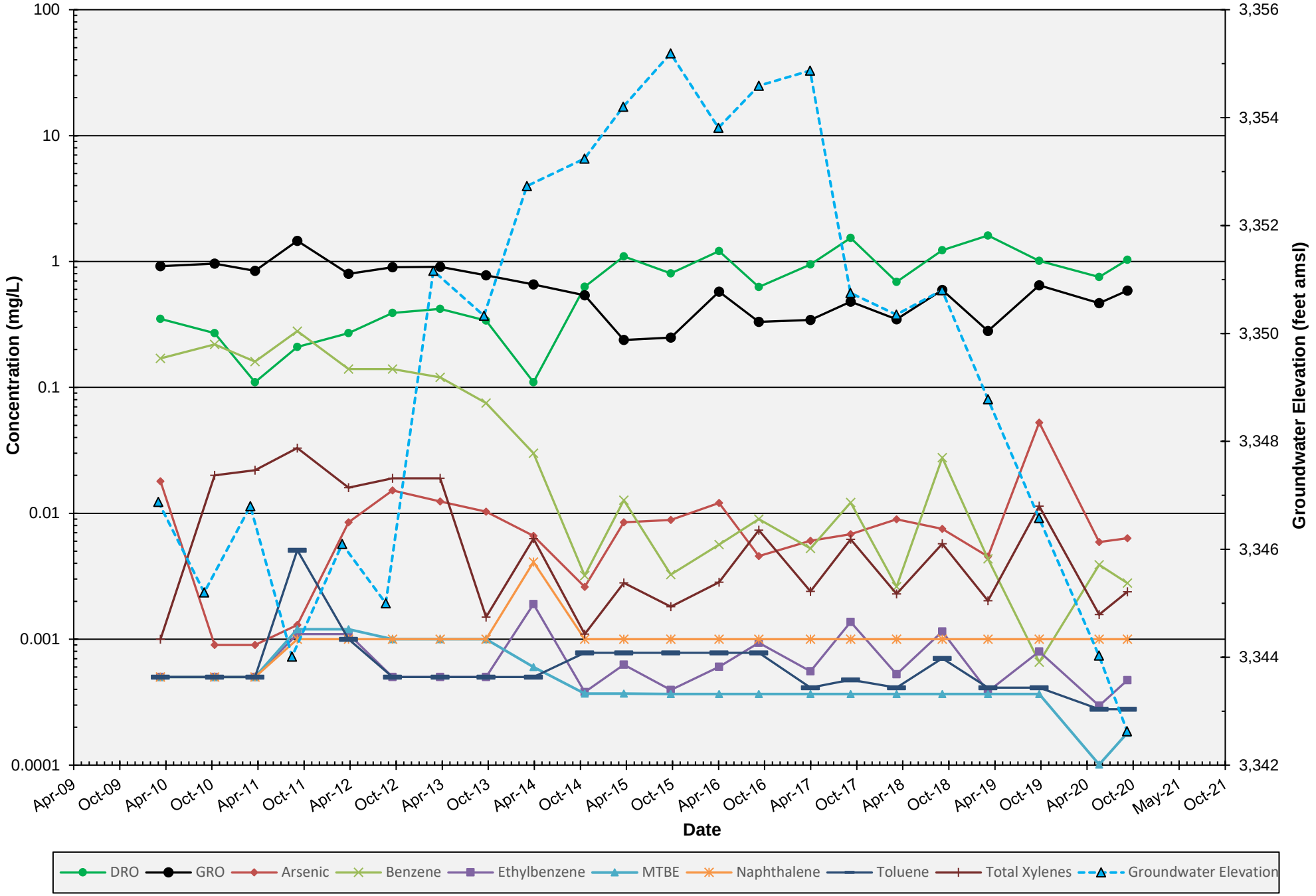
North Refinery Area



MW-60: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

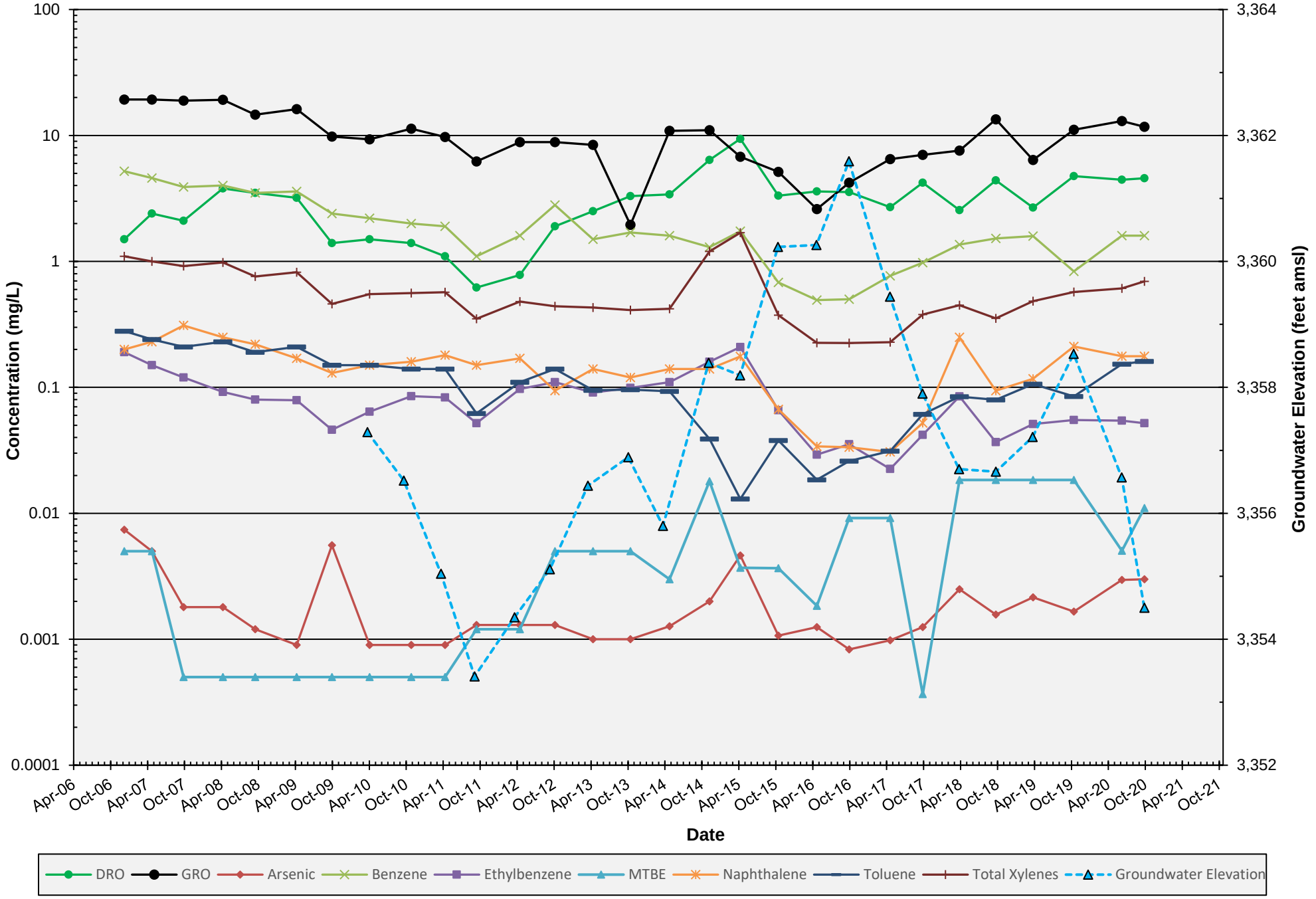
North Refinery Area



MW-61: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

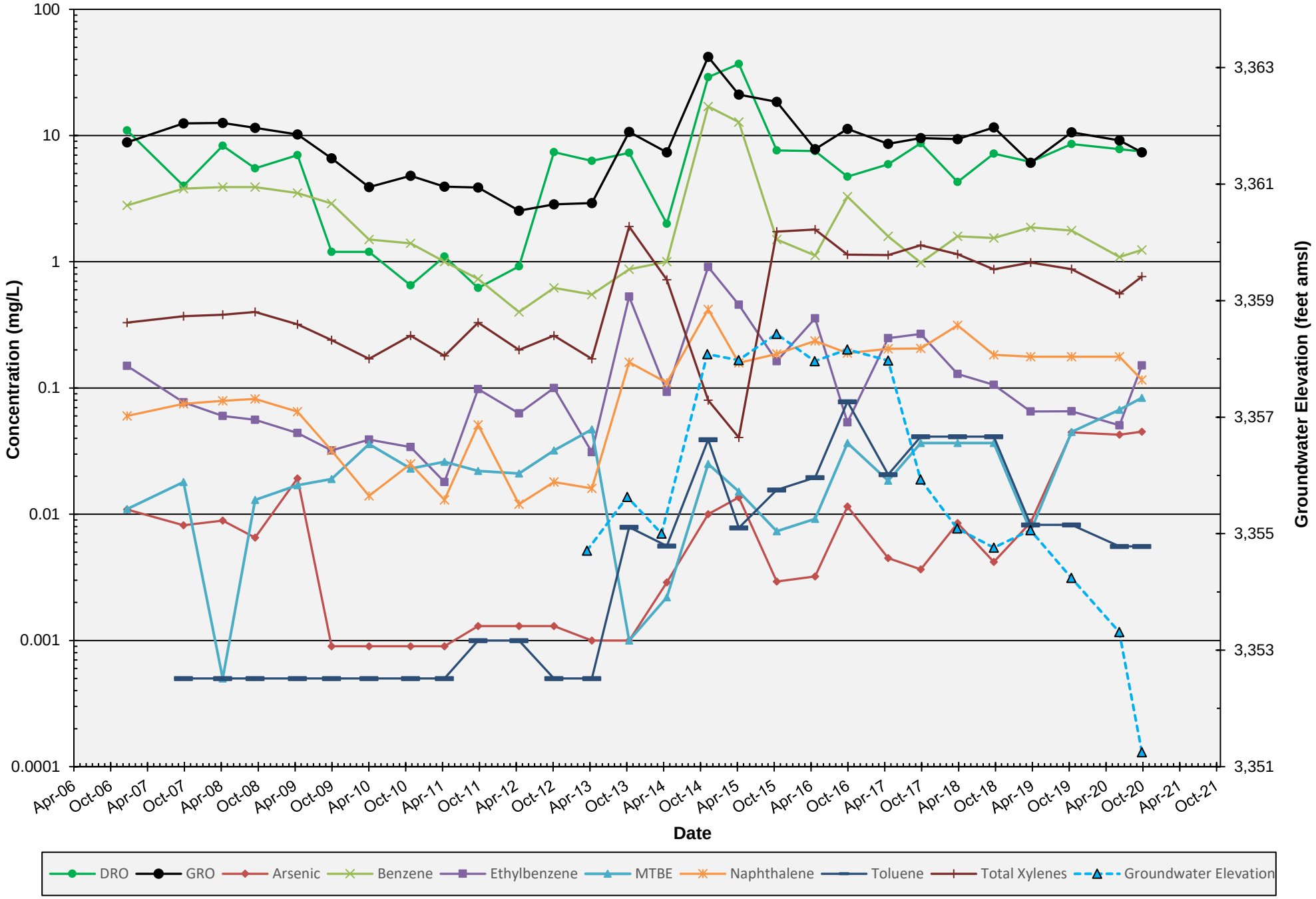
North Refinery Area



MW-62: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

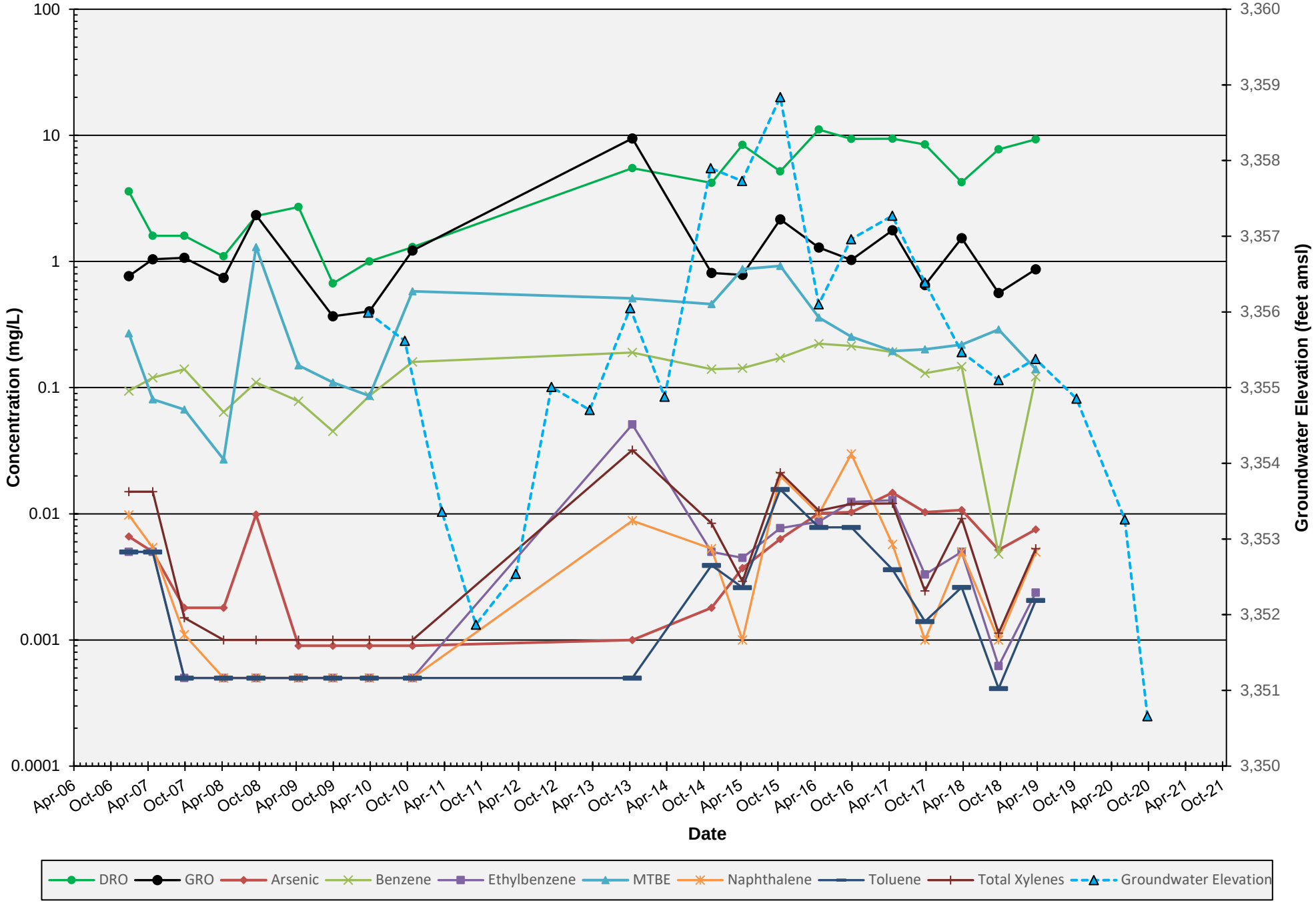
North Refinery Area



MW-67: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

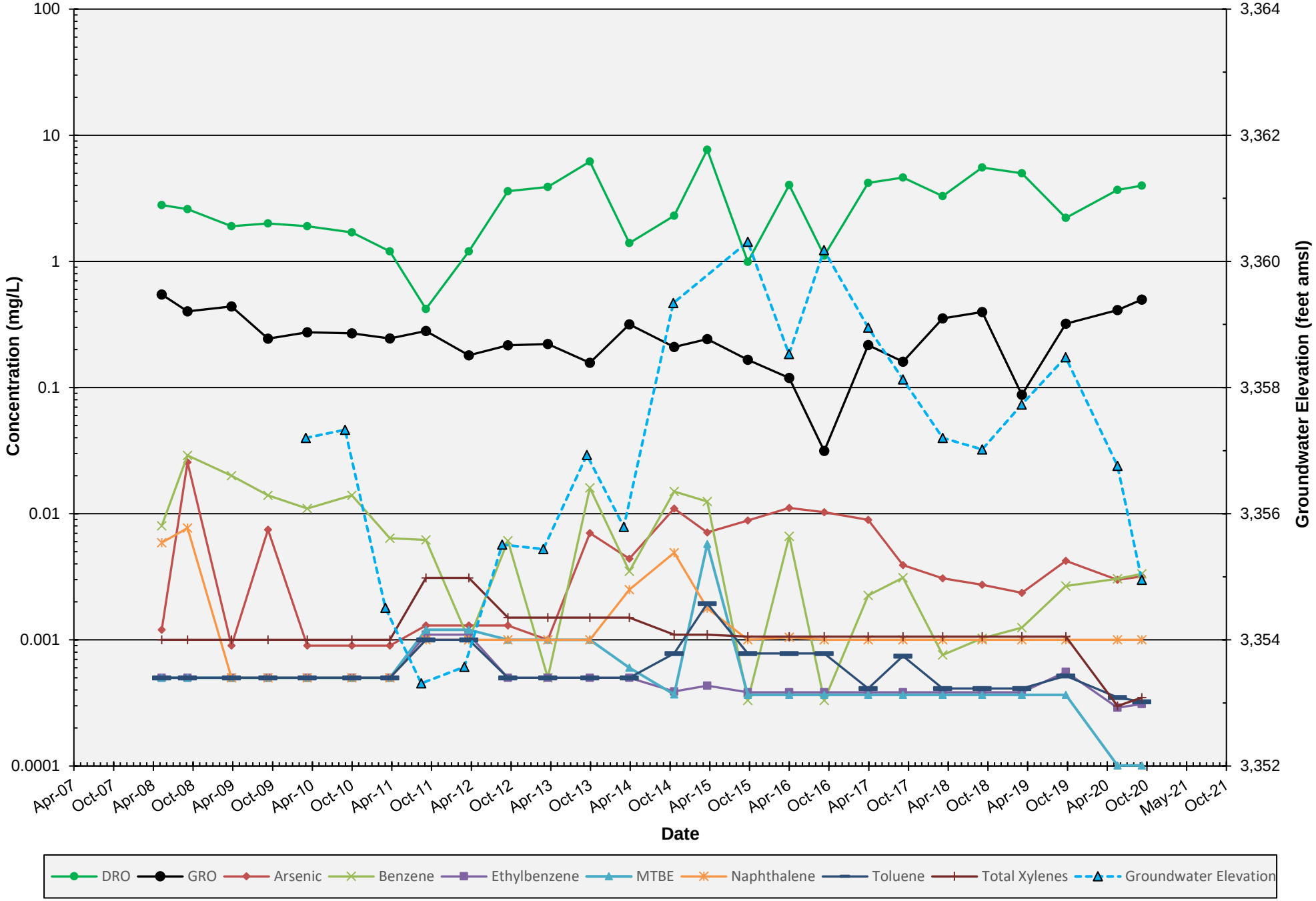
North Refinery Area



MW-90: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

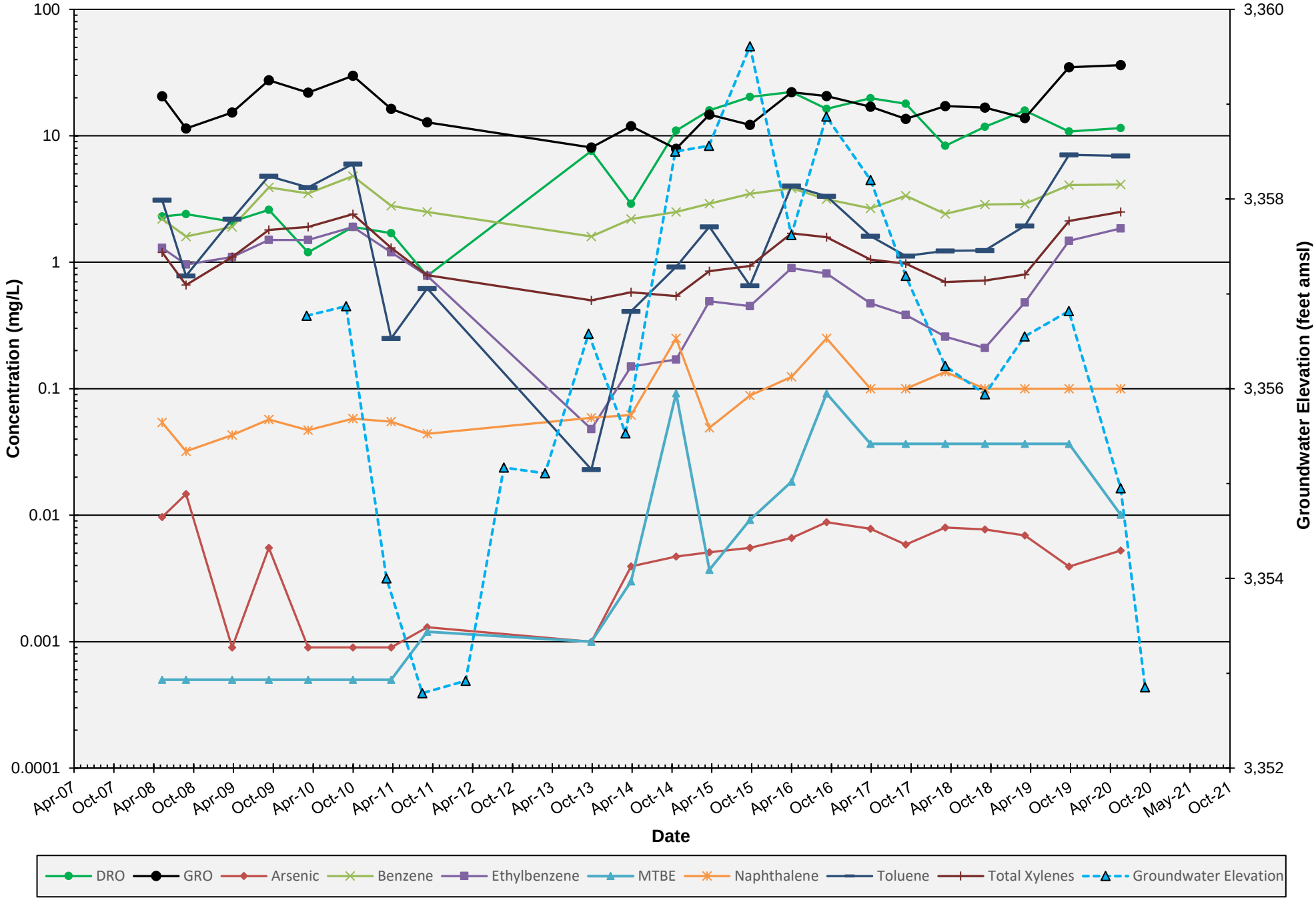
North Refinery Area



MW-91: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

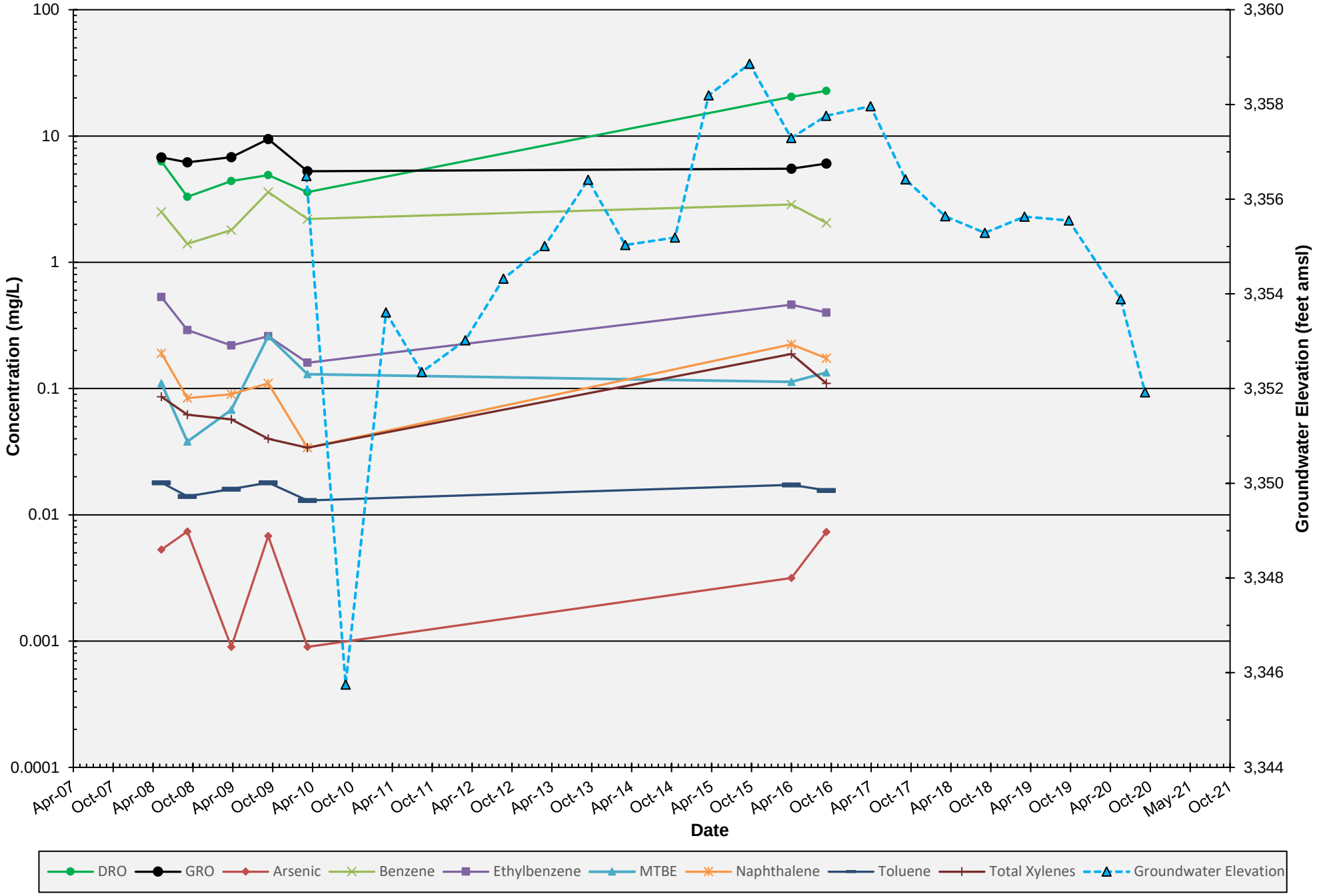
North Refinery Area



MW-92: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

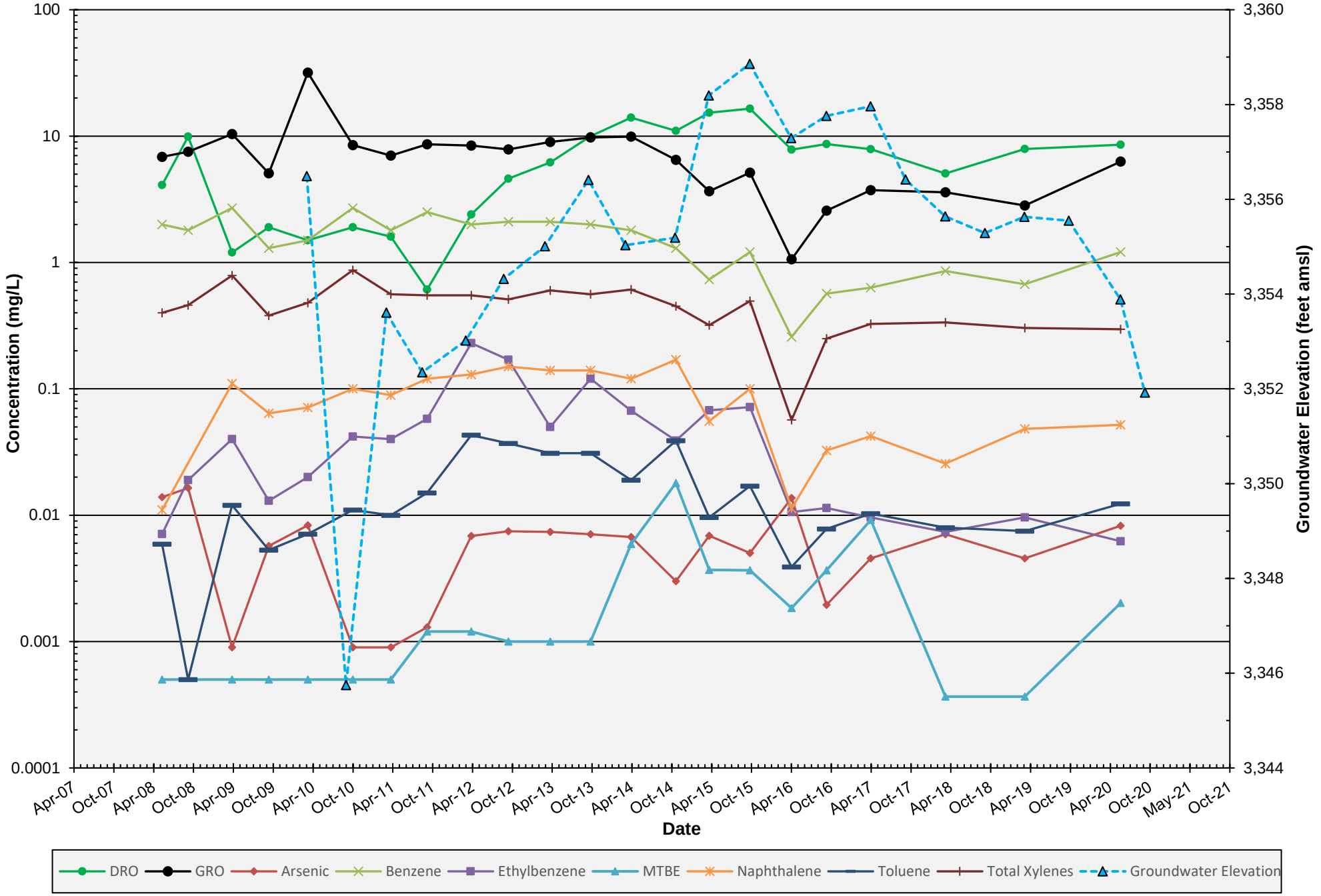
North Refinery Area



MW-93: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

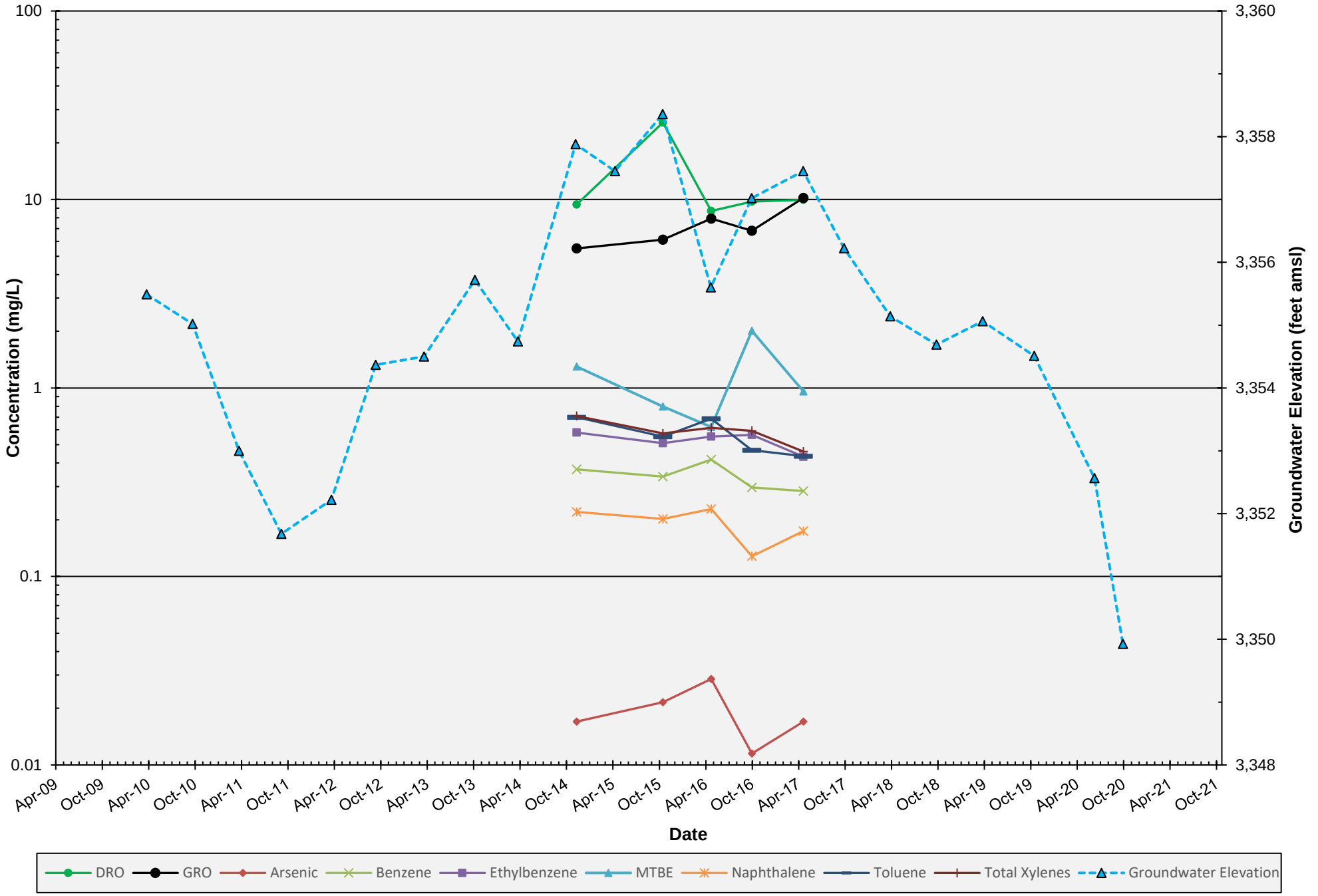
North Refinery Area



MW-94: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

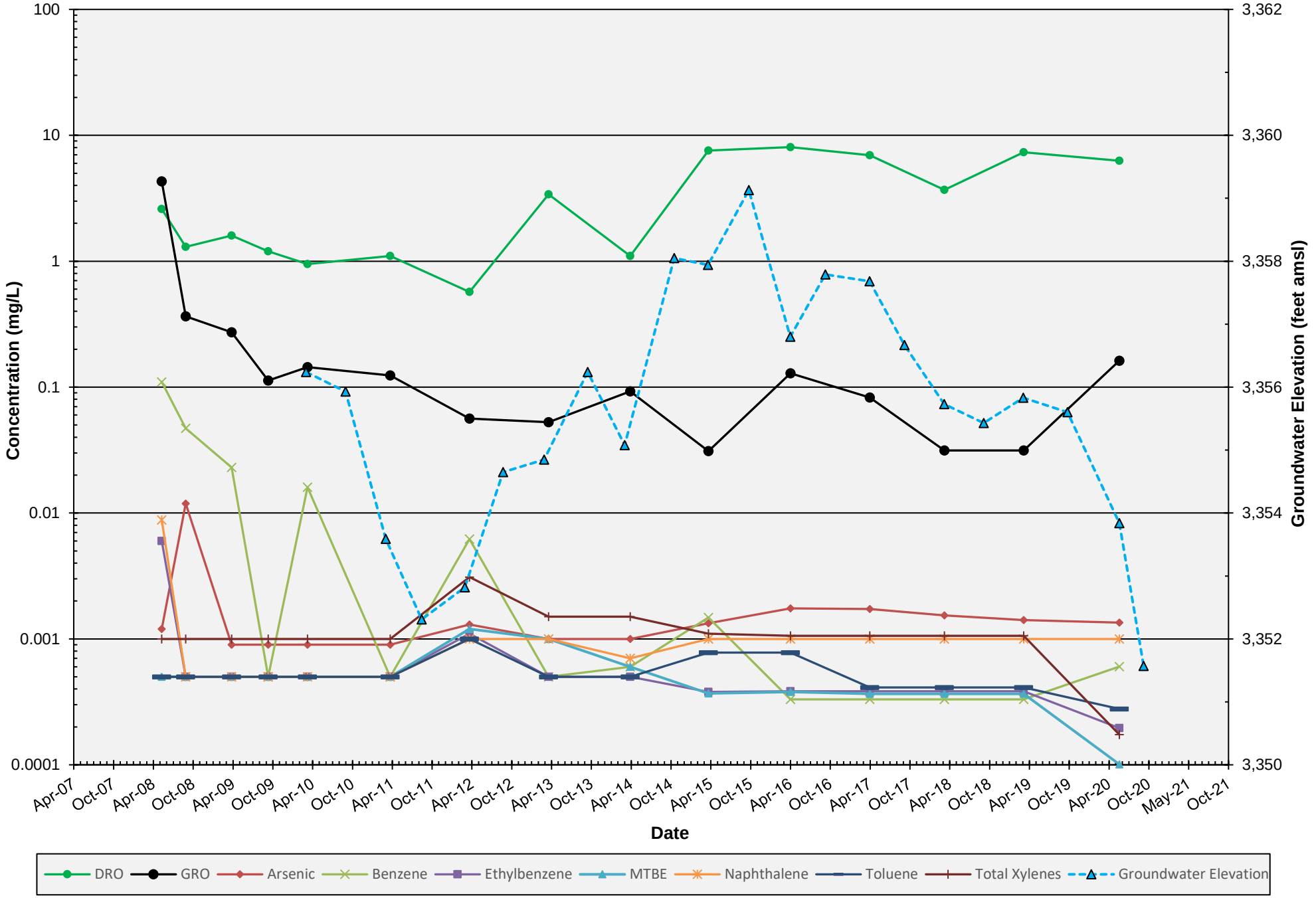
North Refinery Area



MW-95: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

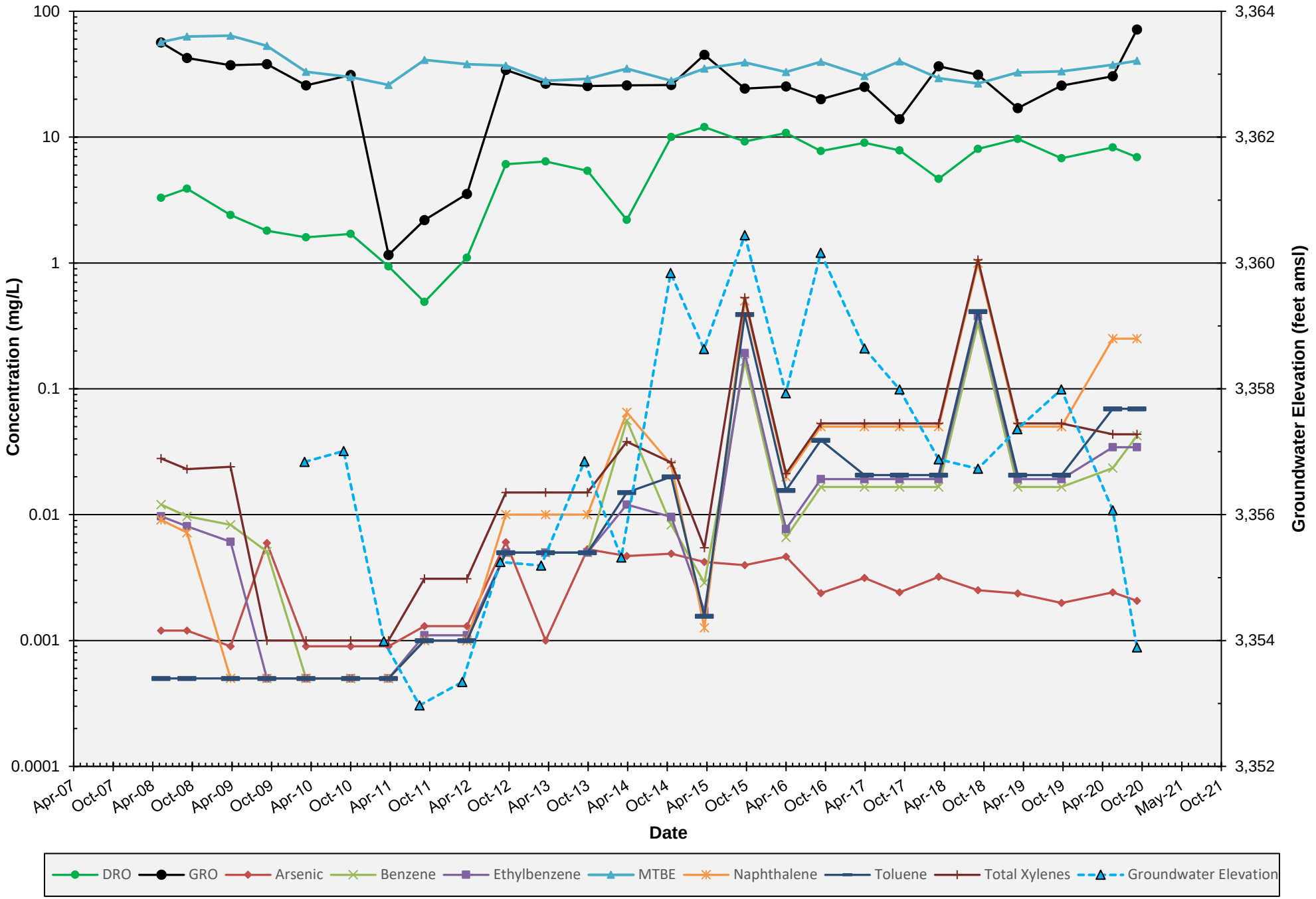
North Refinery Area



MW-96: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

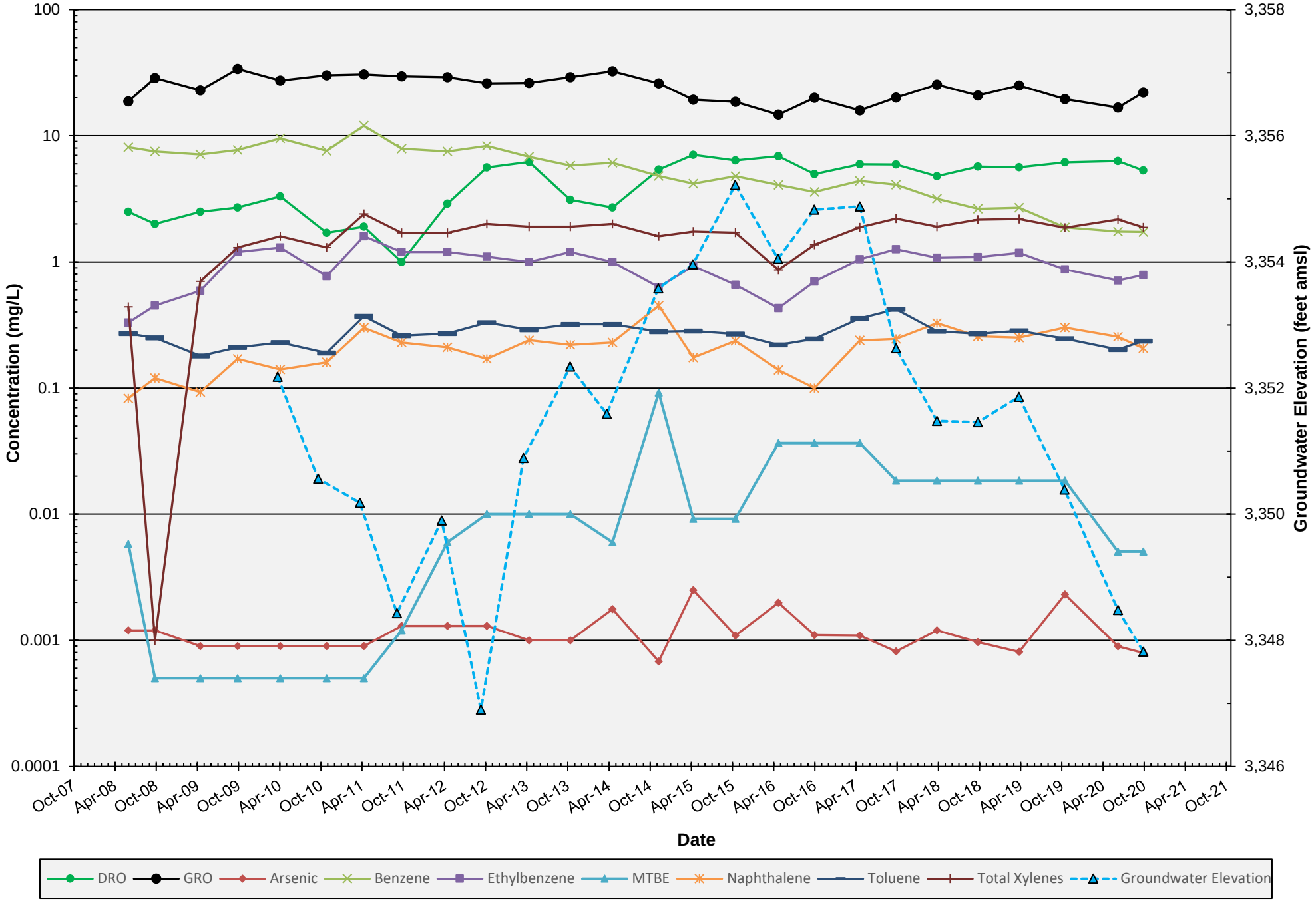
North Refinery Area



MW-98: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

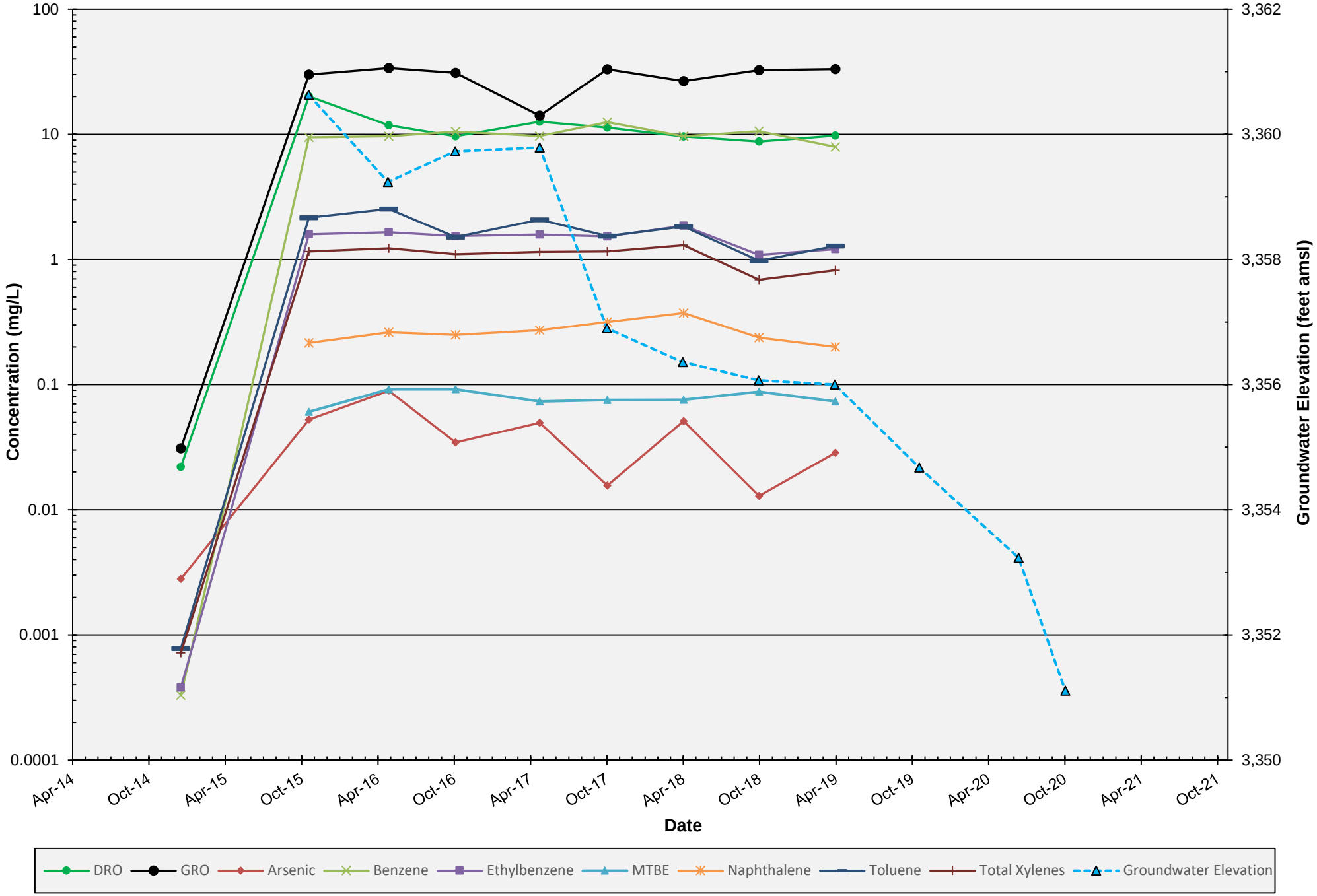
North Refinery Area



MW-137: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

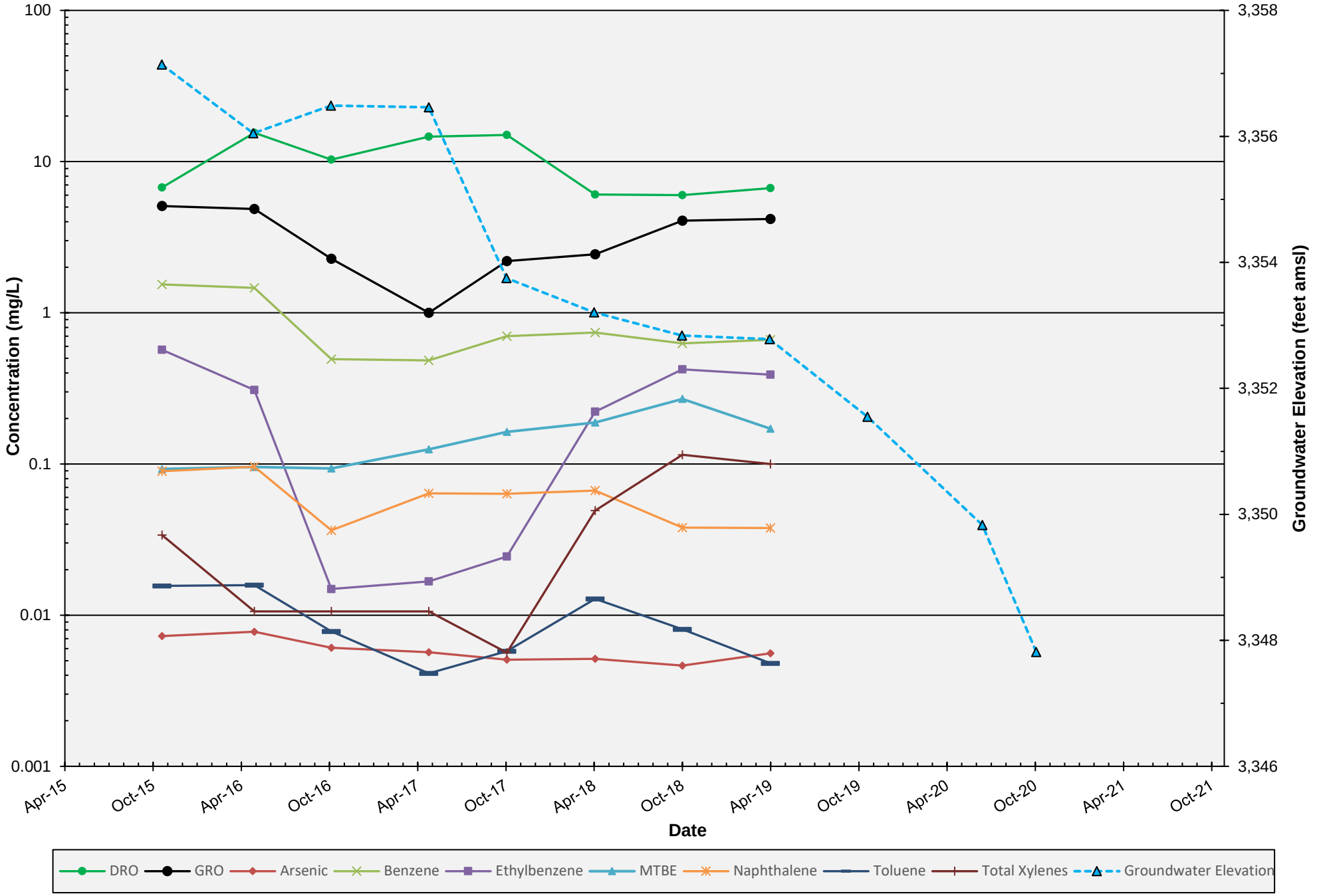
North Refinery Area



MW-138: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

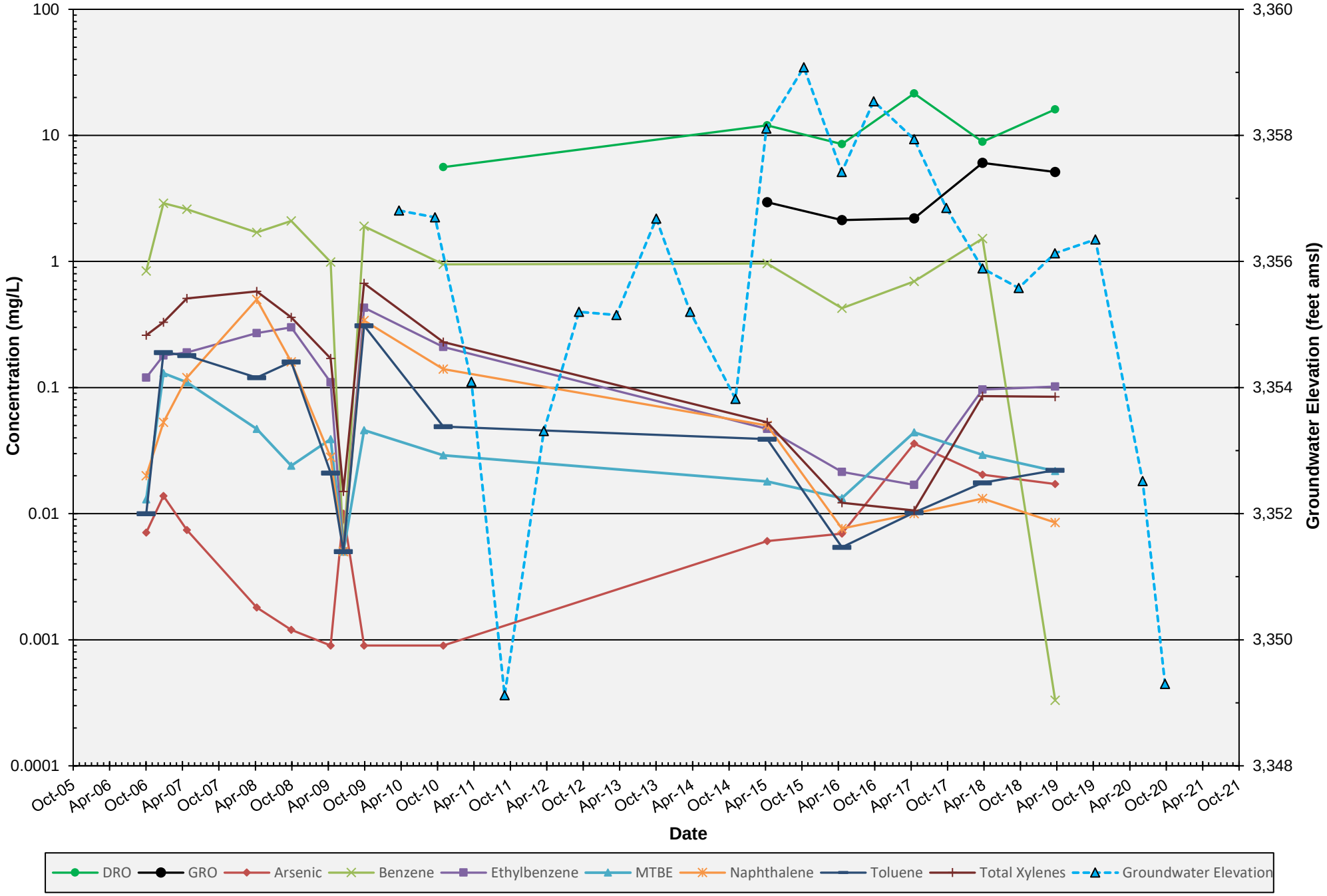
North Refinery Area



RW-1: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

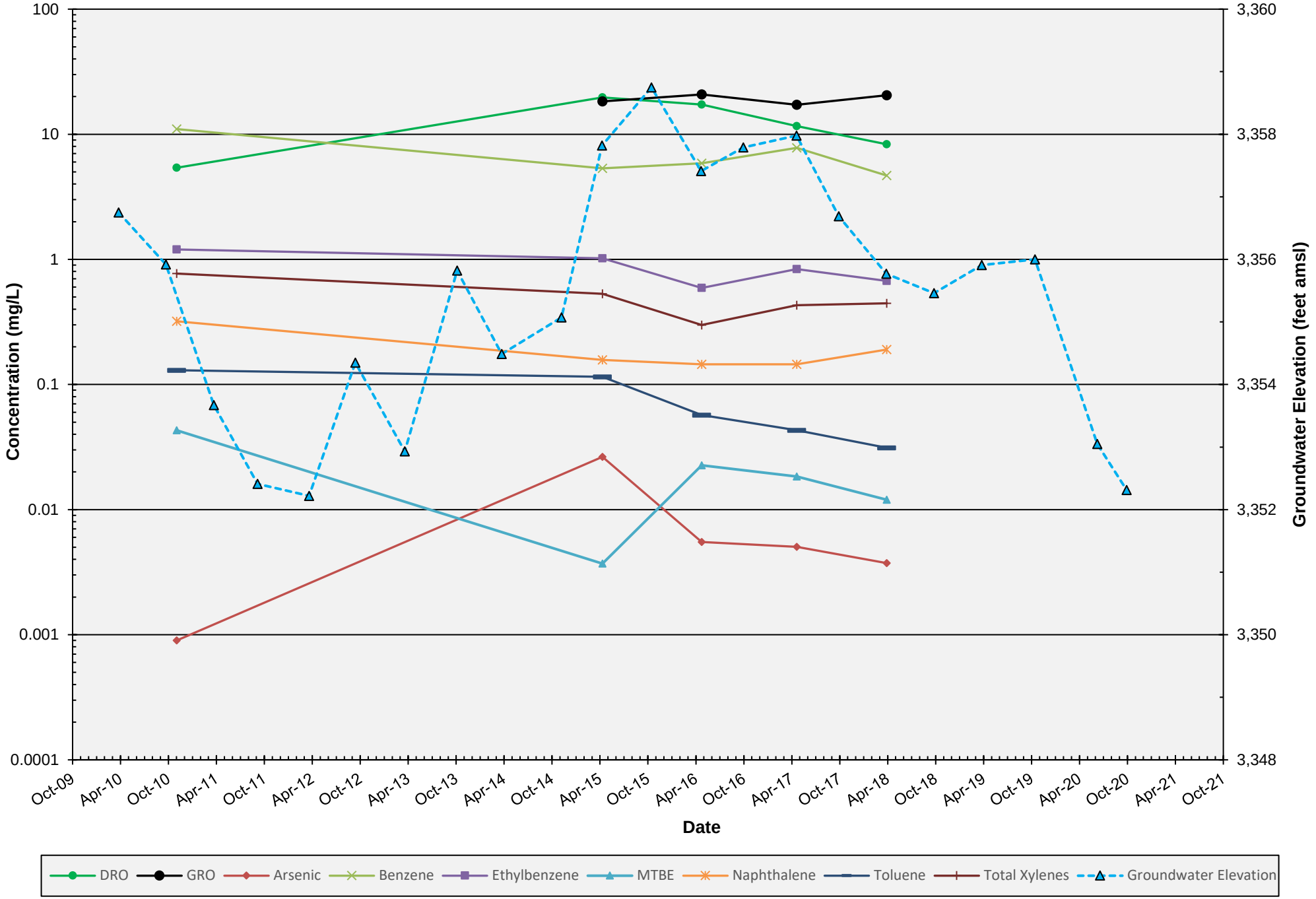
North Refinery Area



RW-2: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

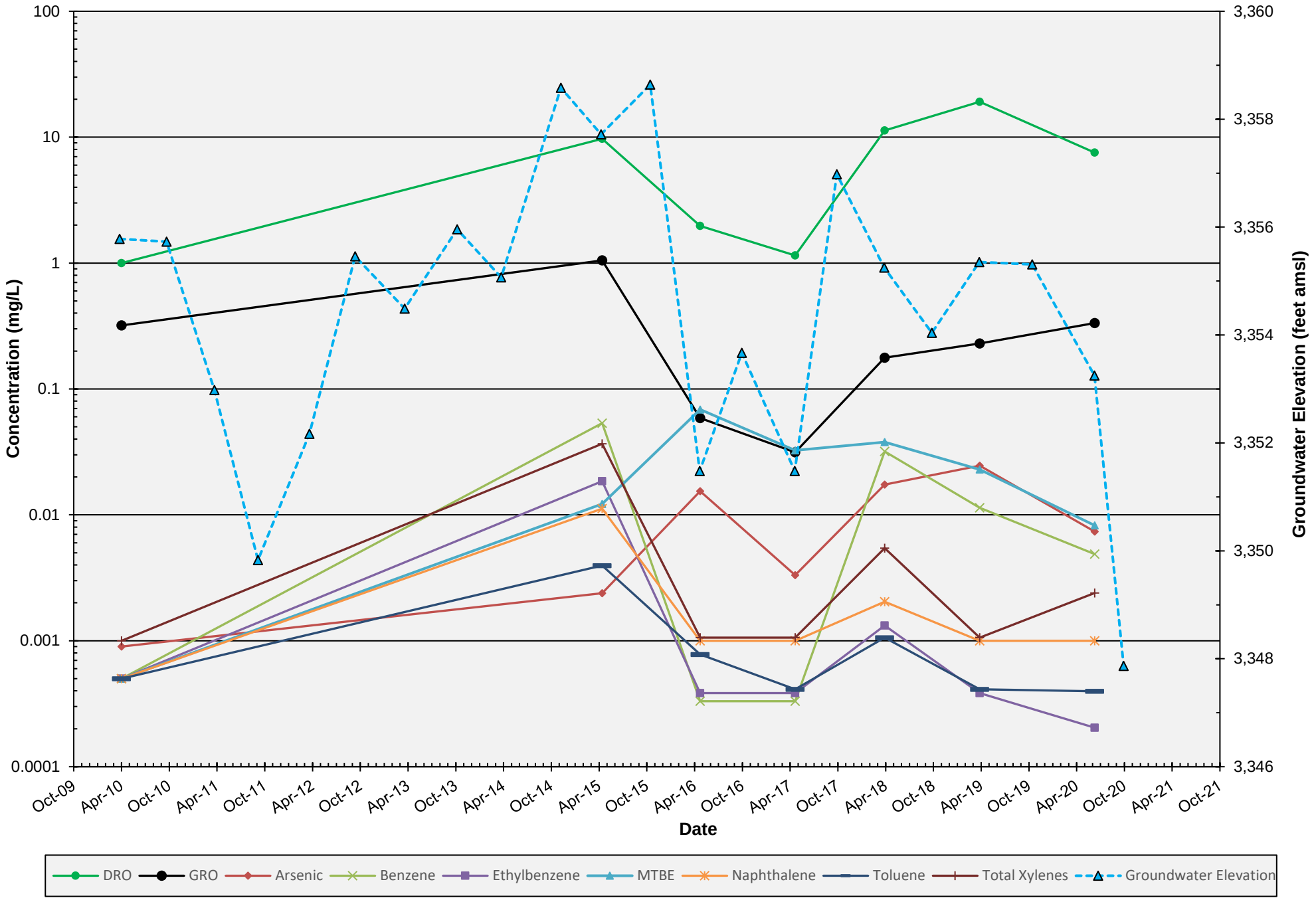
North Refinery Area



RW-7: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

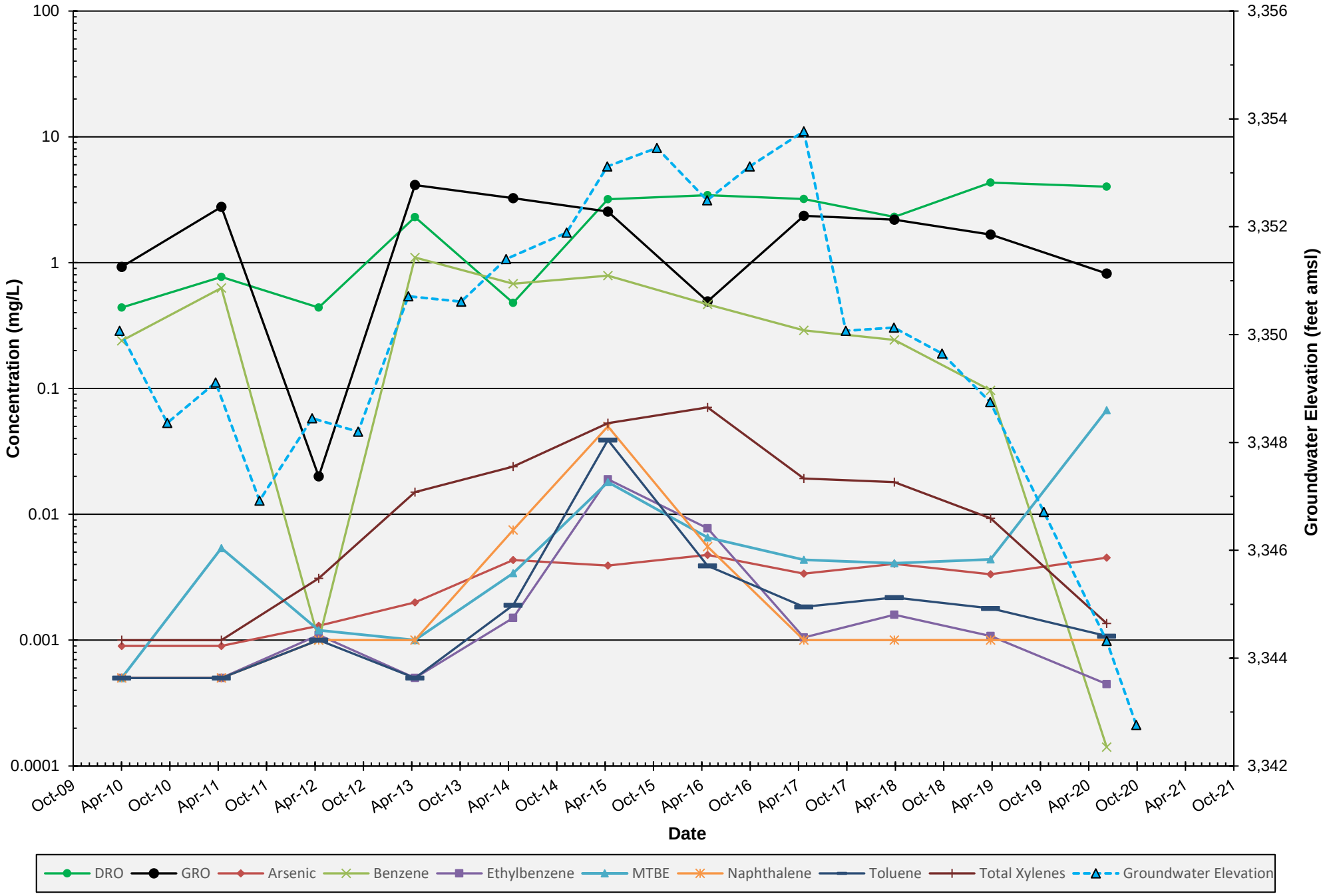
North Refinery Area



RW-9: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

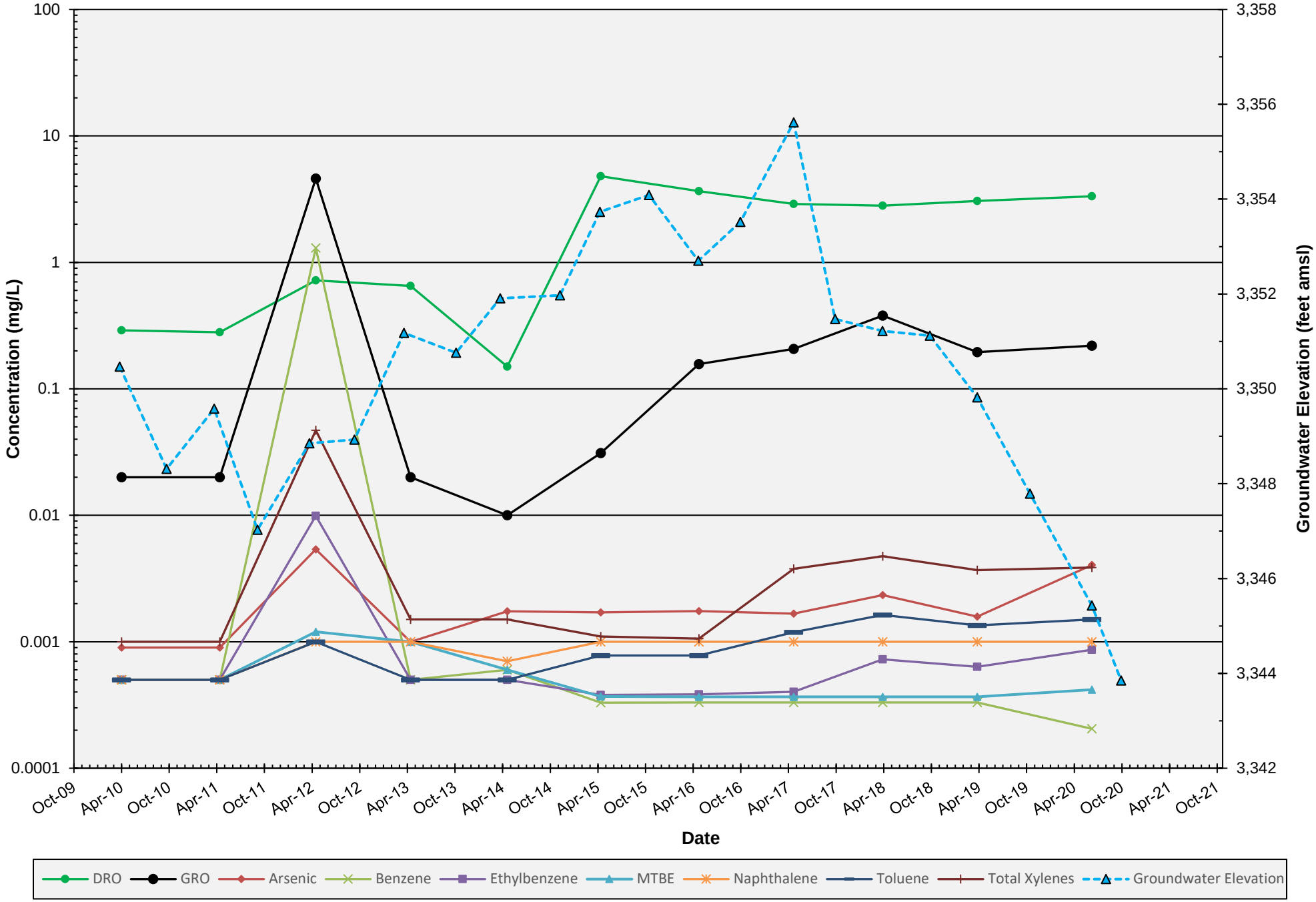
North Refinery Area



RW-10: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

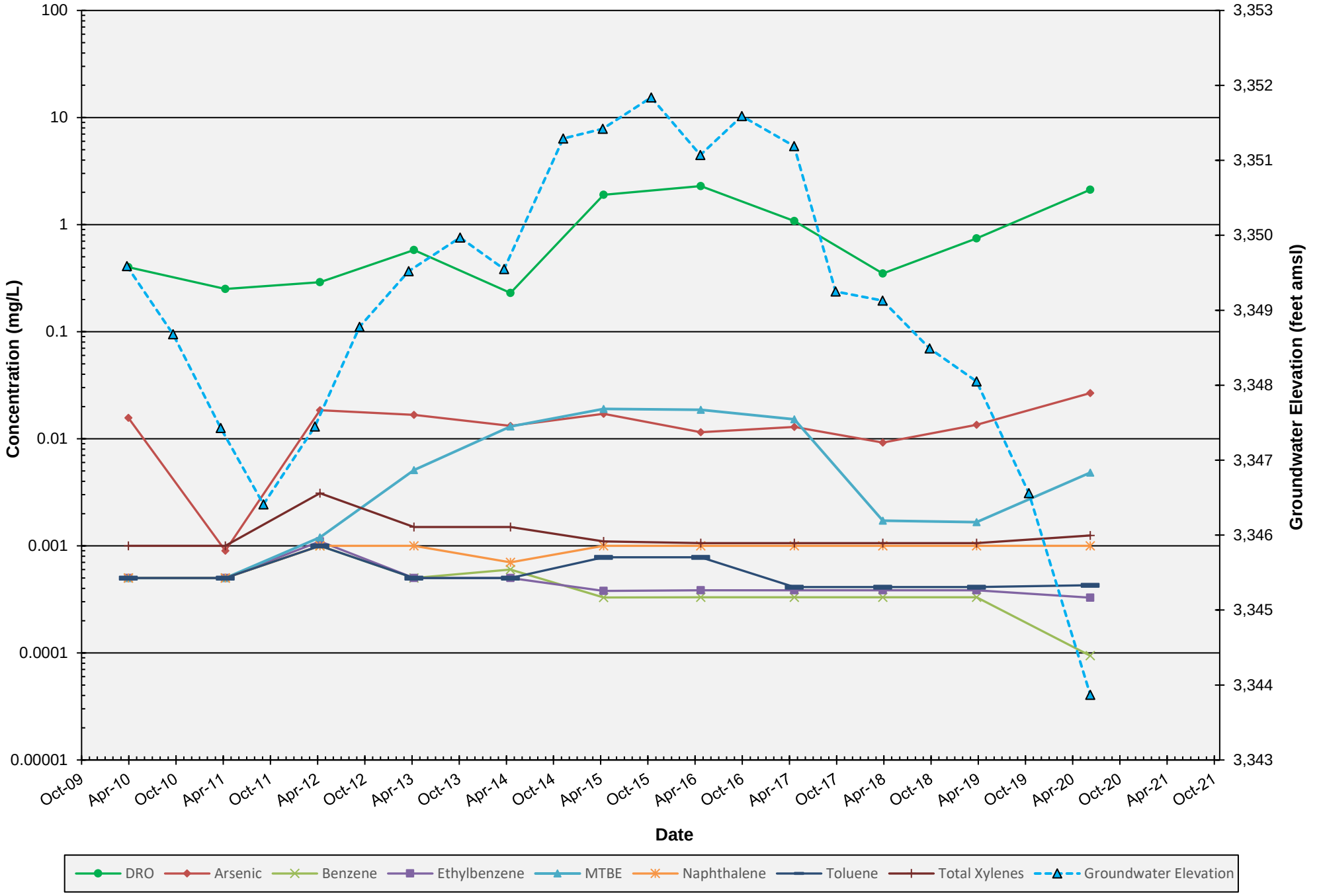
North Refinery Area



RW-16: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

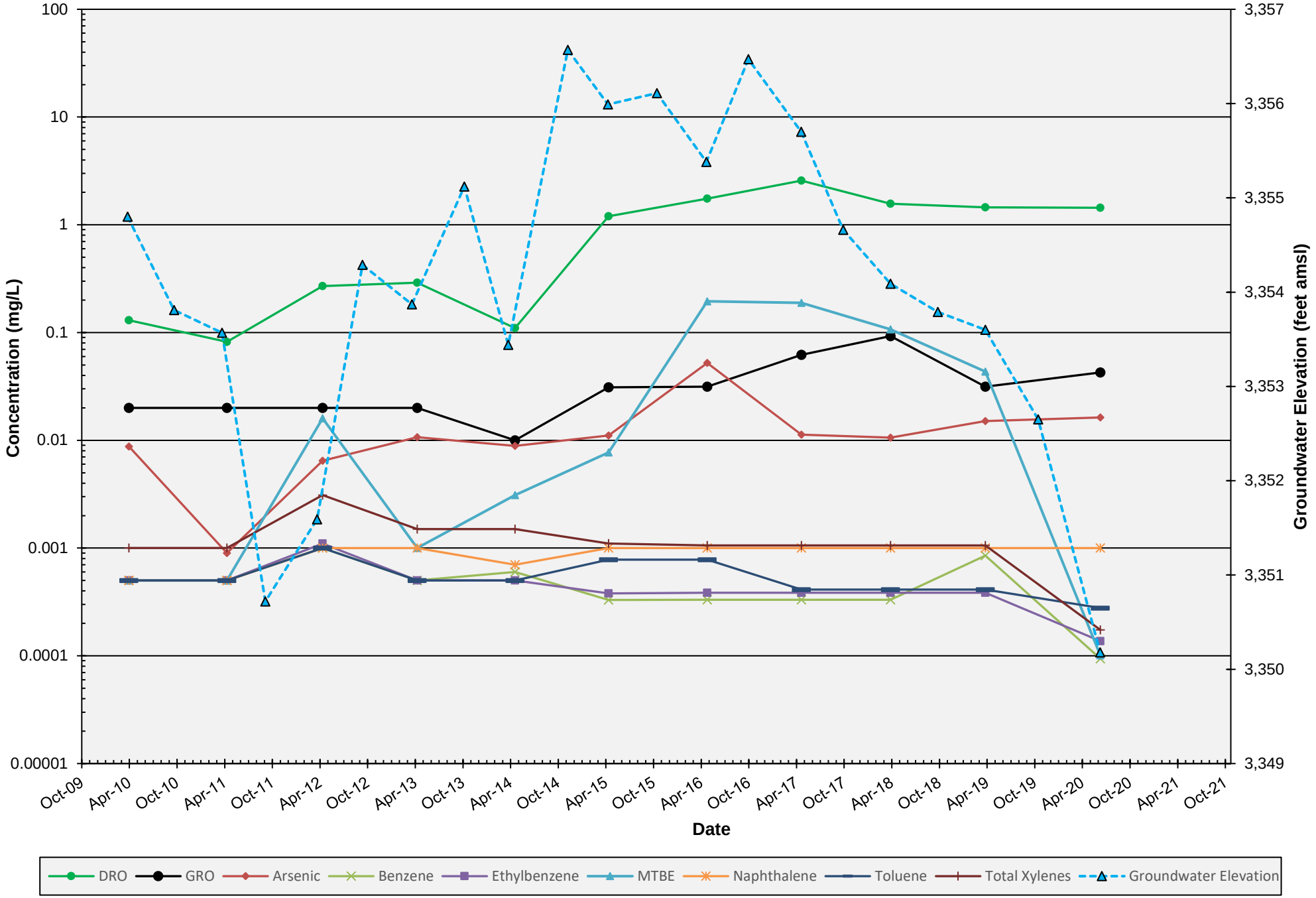
North Refinery Area



RW-17: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

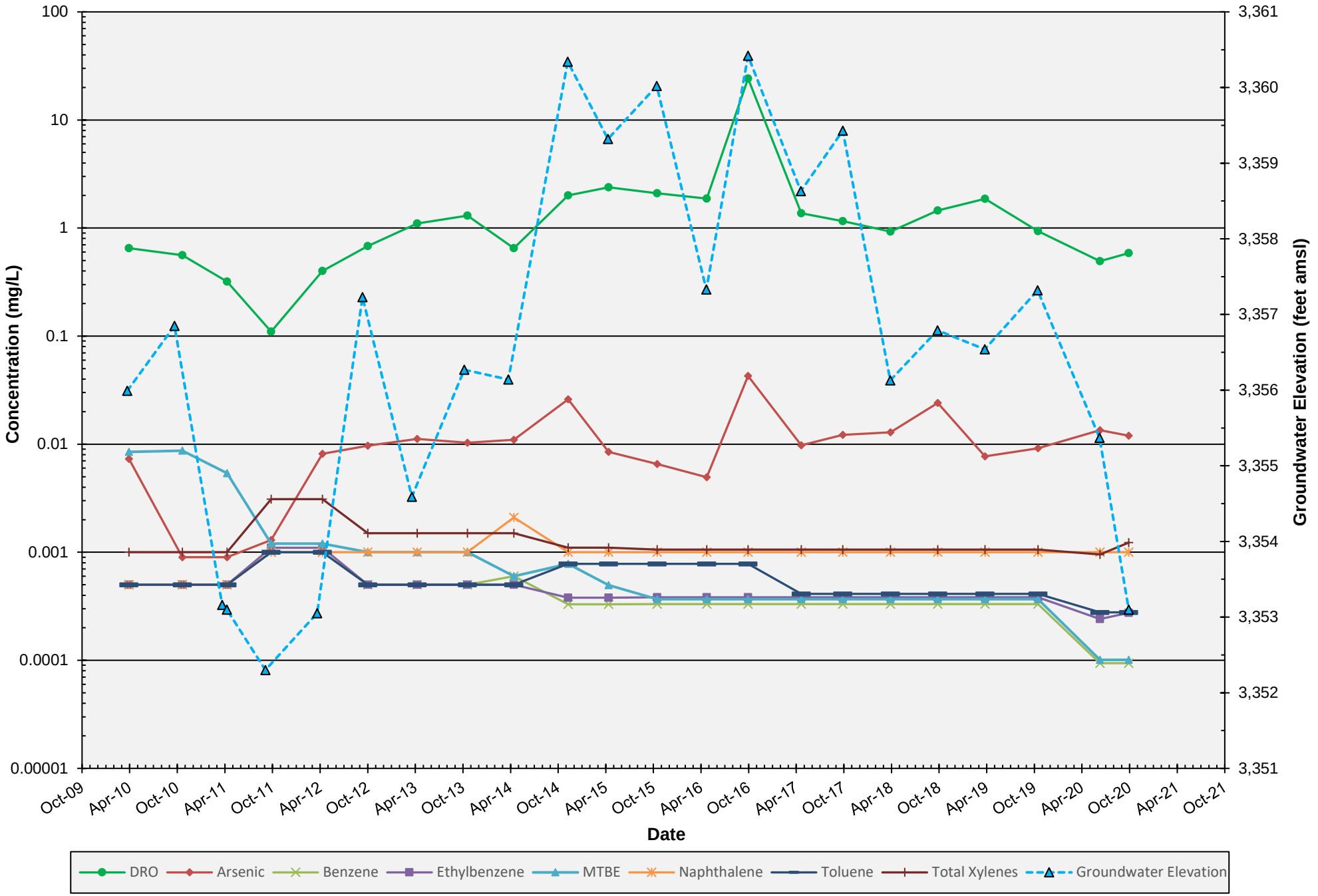
North Refinery Area



NCL-31: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

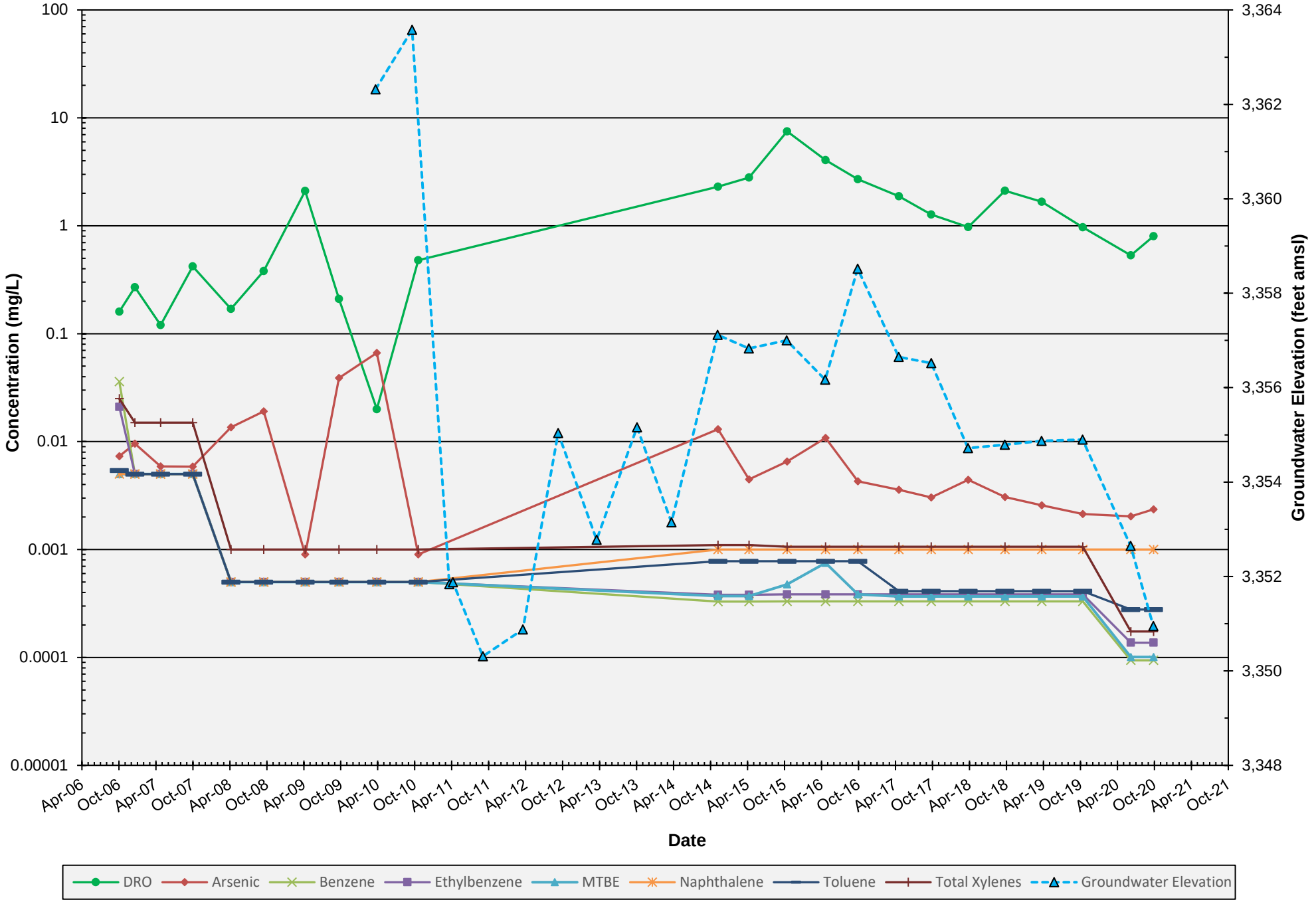
North Colony Landfarm



NCL-32: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

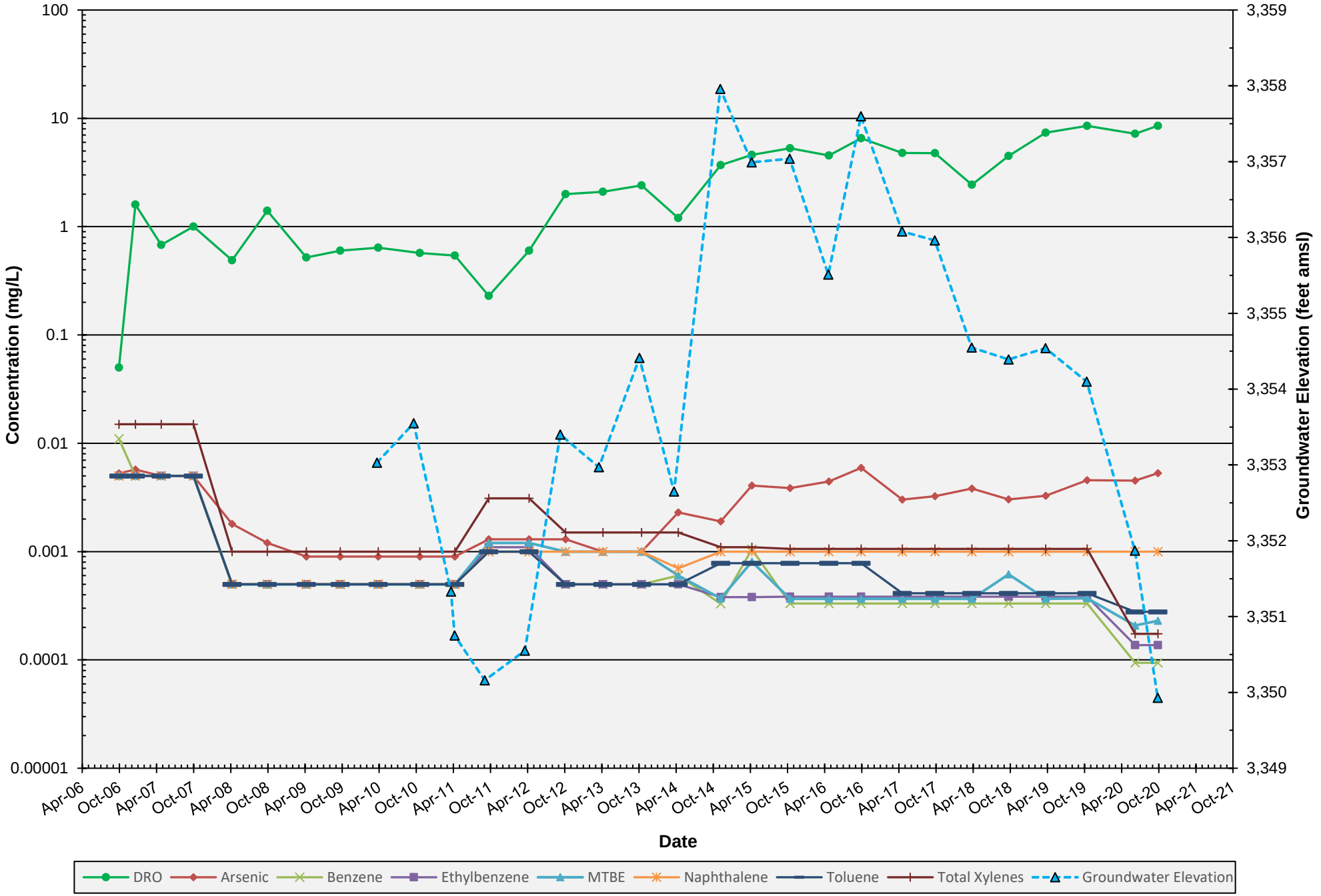
North Colony Landfarm



NCL-33: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

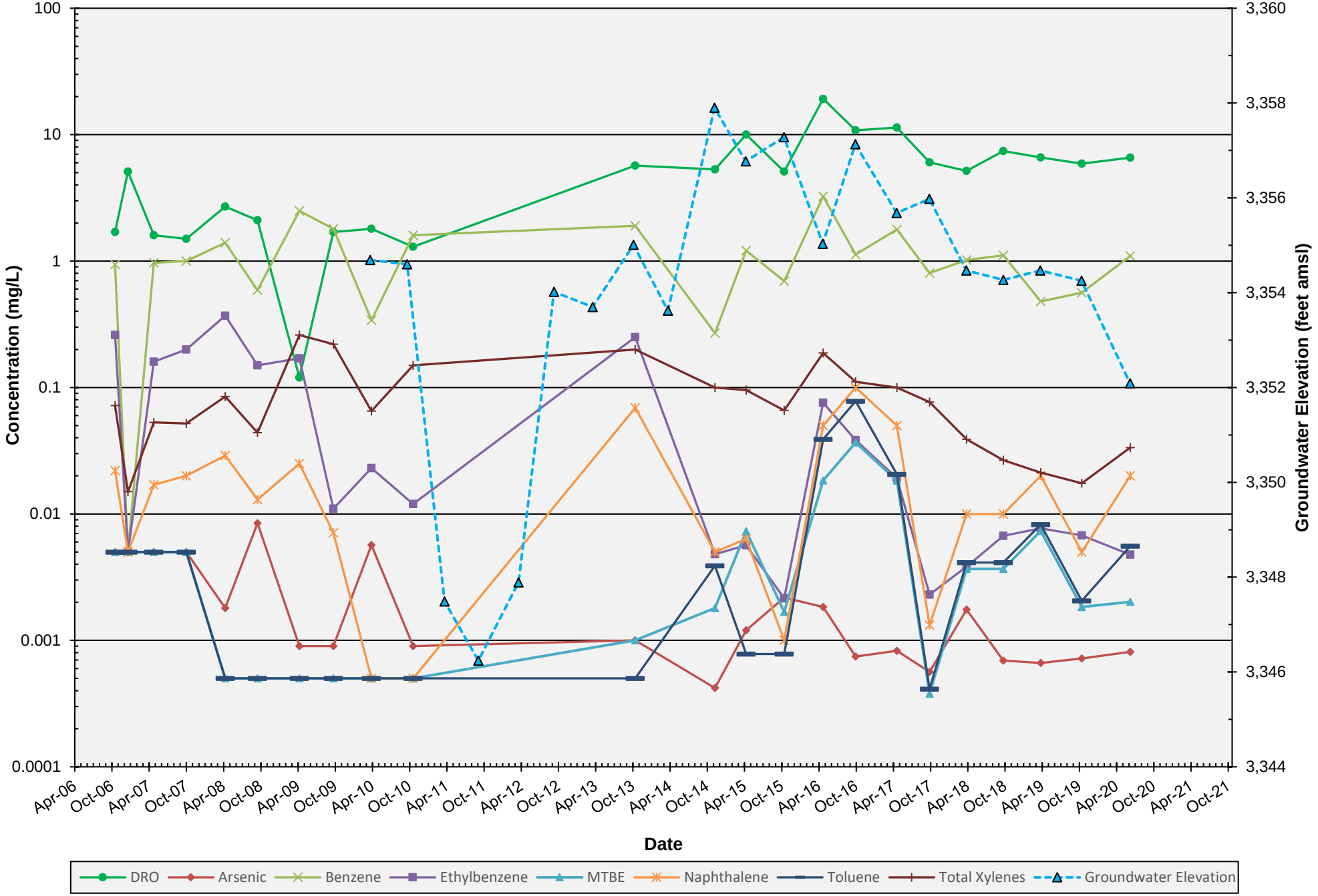
North Colony Landfarm



NCL-34A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

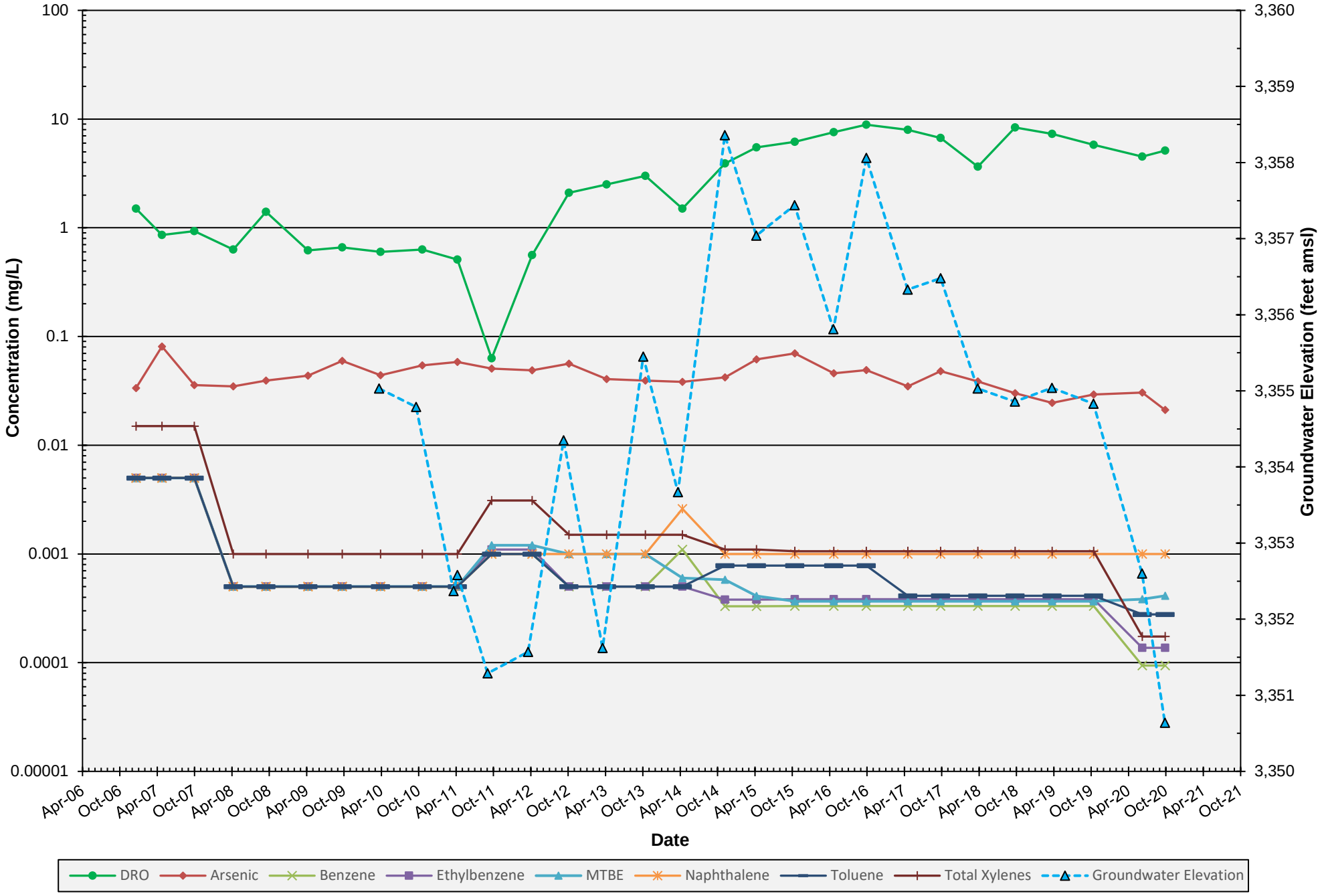
North Colony Landfarm



NCL-44: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

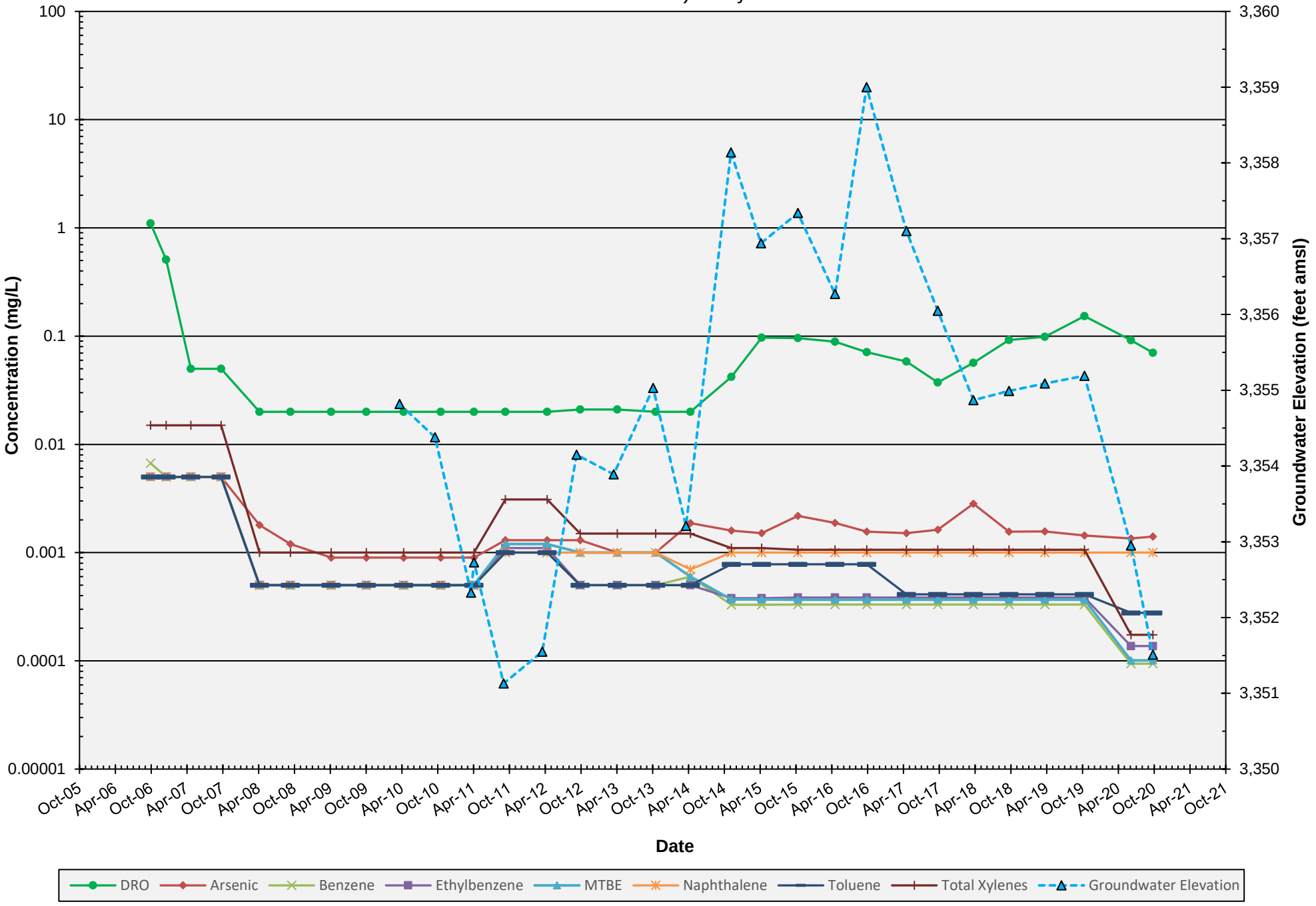
North Colony Landfarm



NCL-49: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

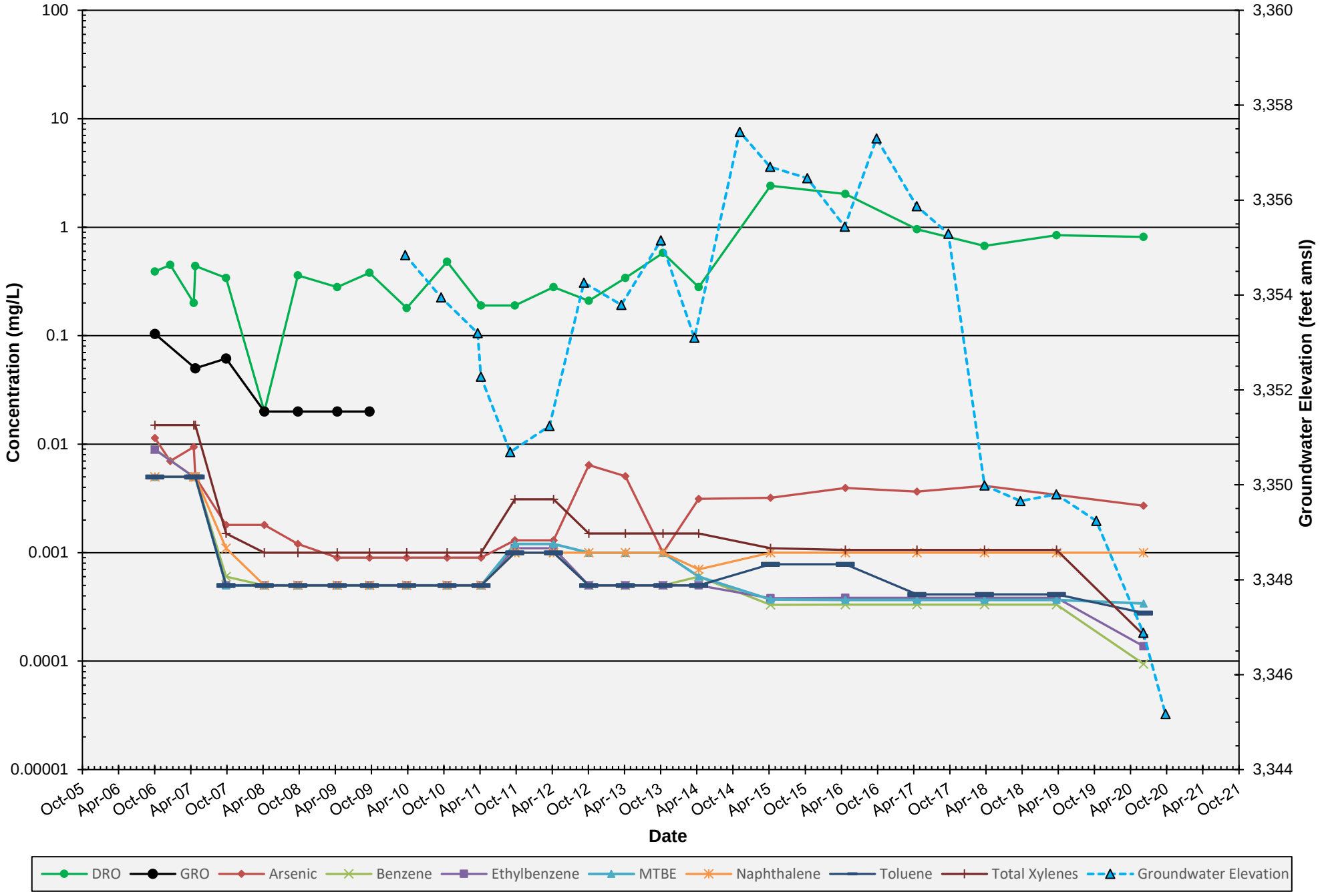
North Colony Landfarm



MW-18: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

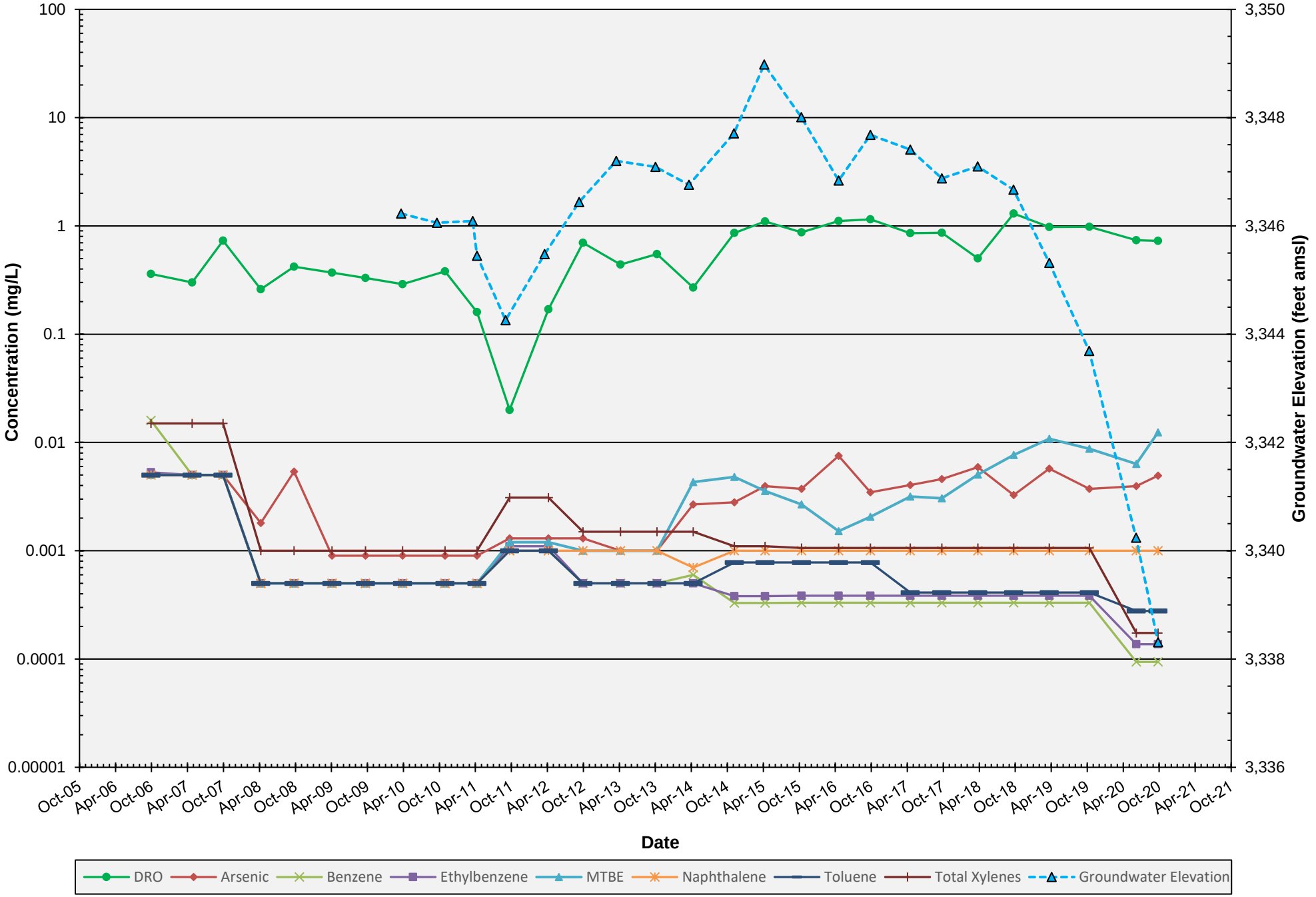
North Colony Landfarm



MW-45: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

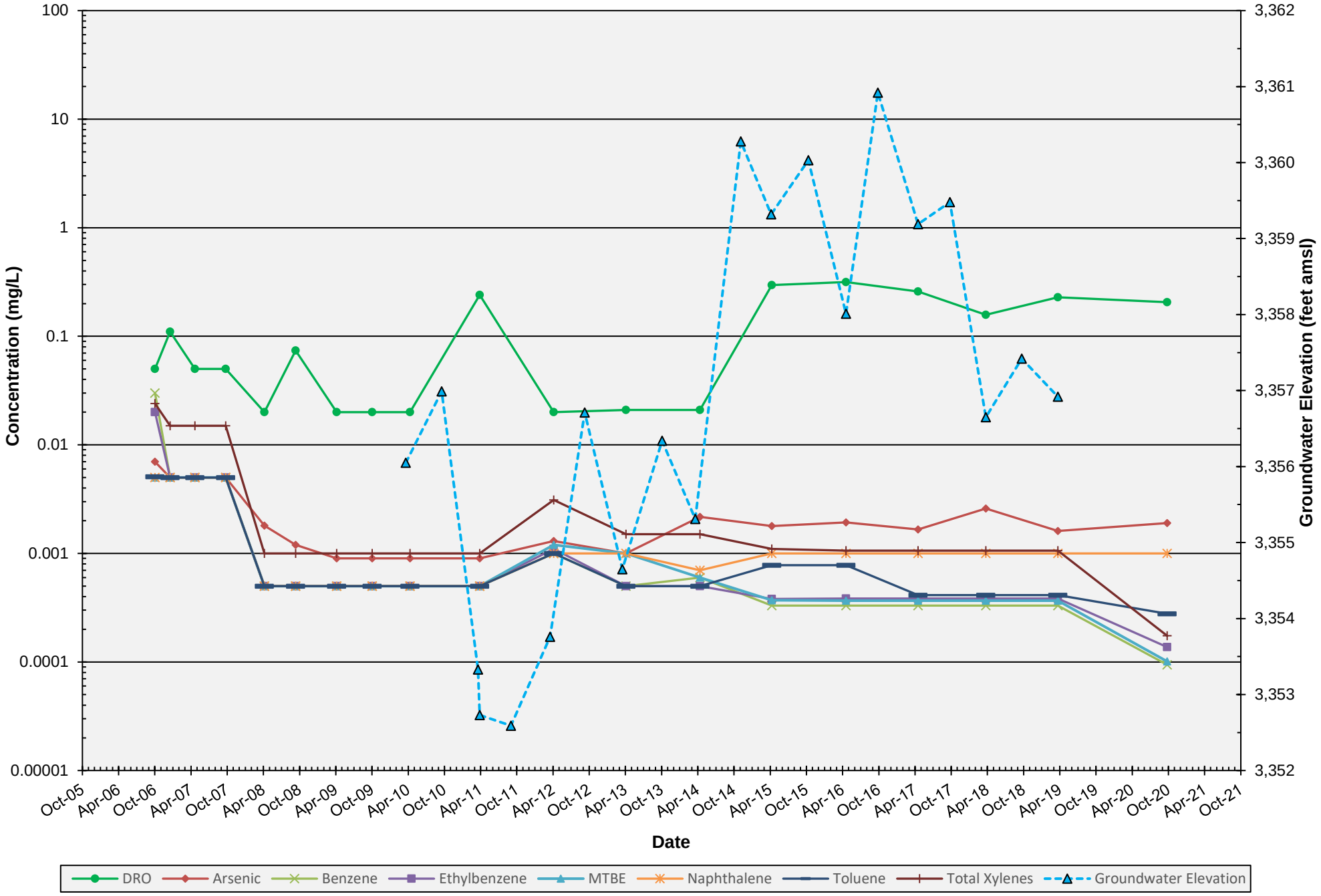
North Colony Landfarm



MW-53/MW-53R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

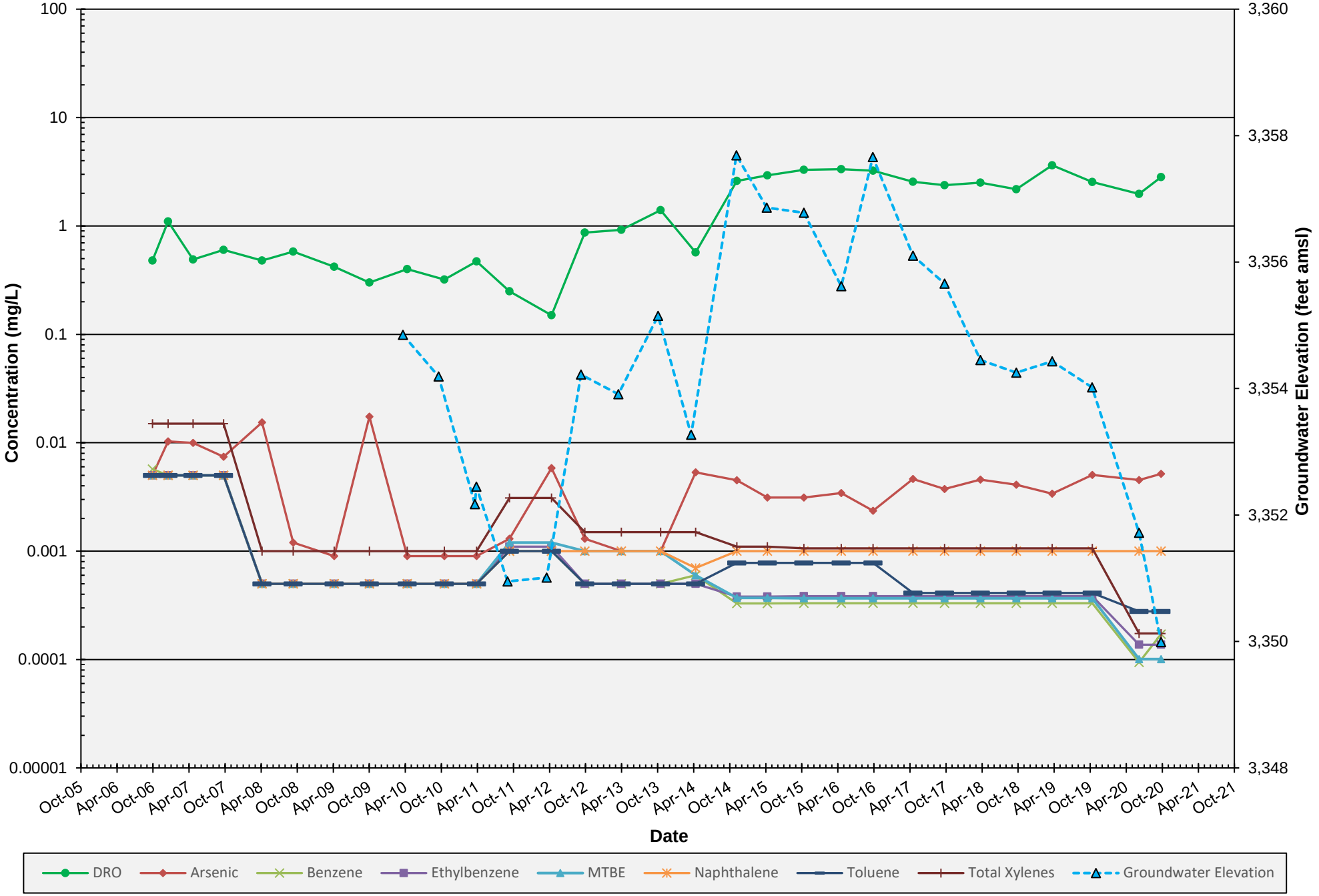
North Colony Landfarm



MW-54A: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

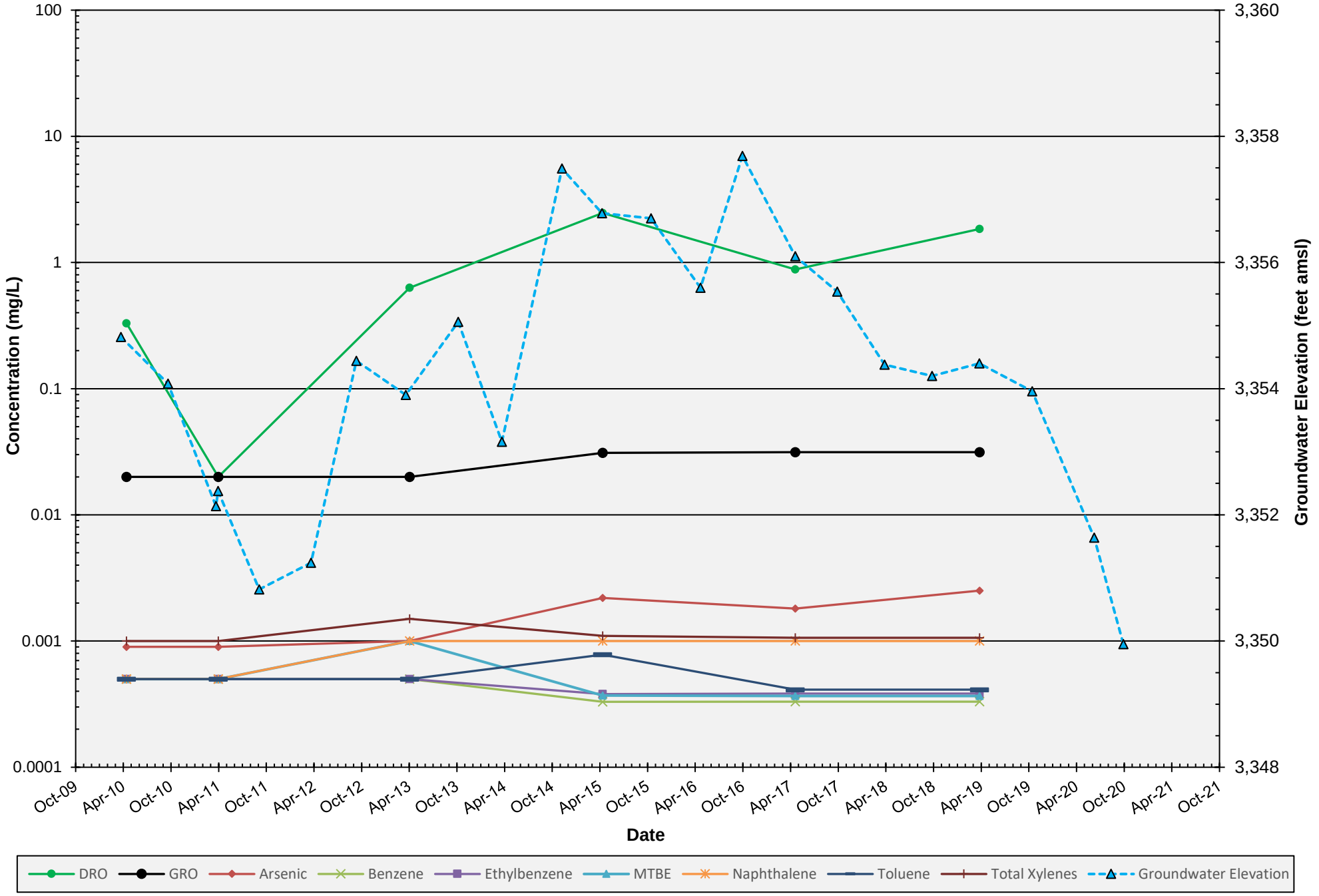
North Colony Landfarm



MW-54B: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

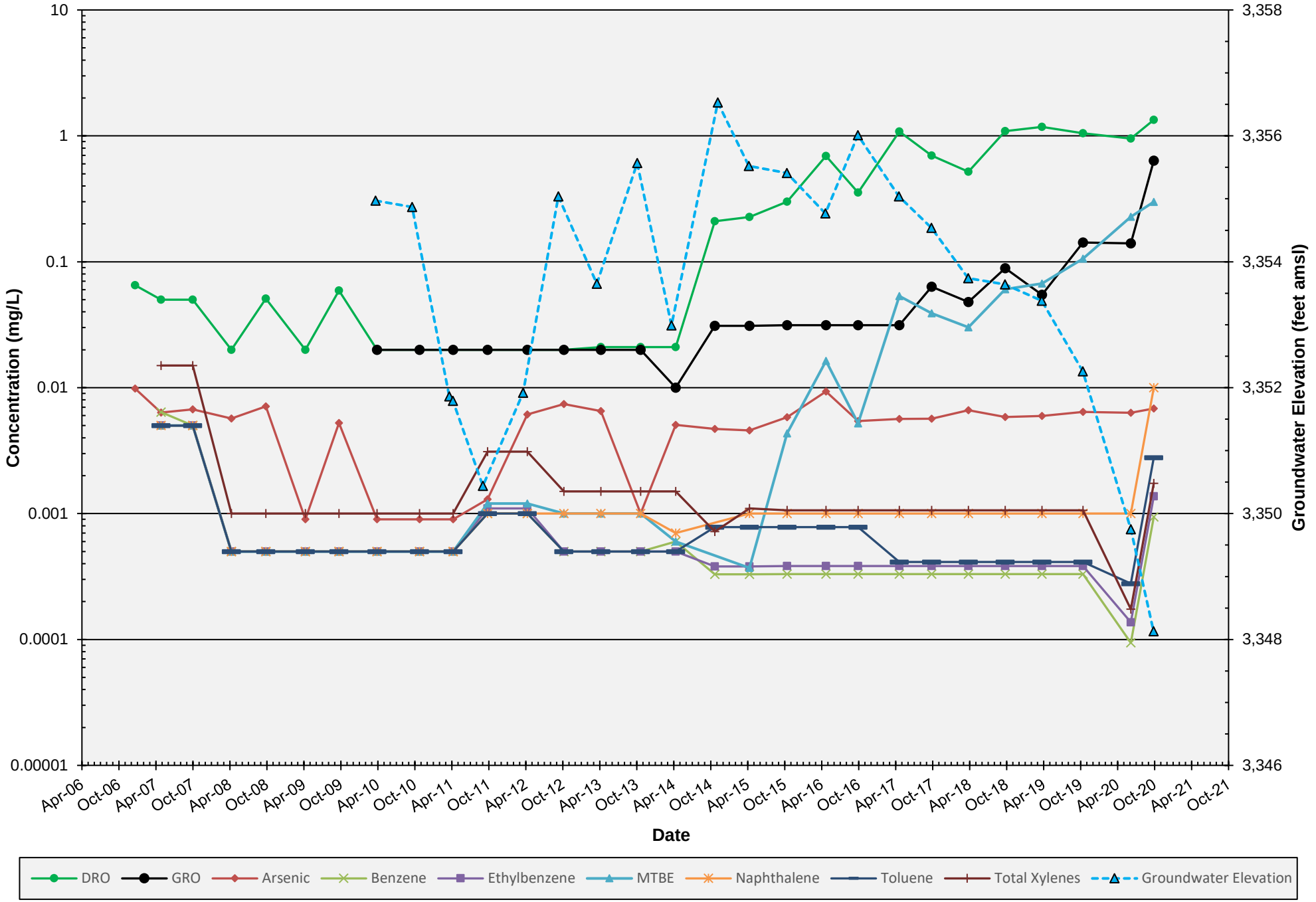
North Colony Landfarm



MW-55: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

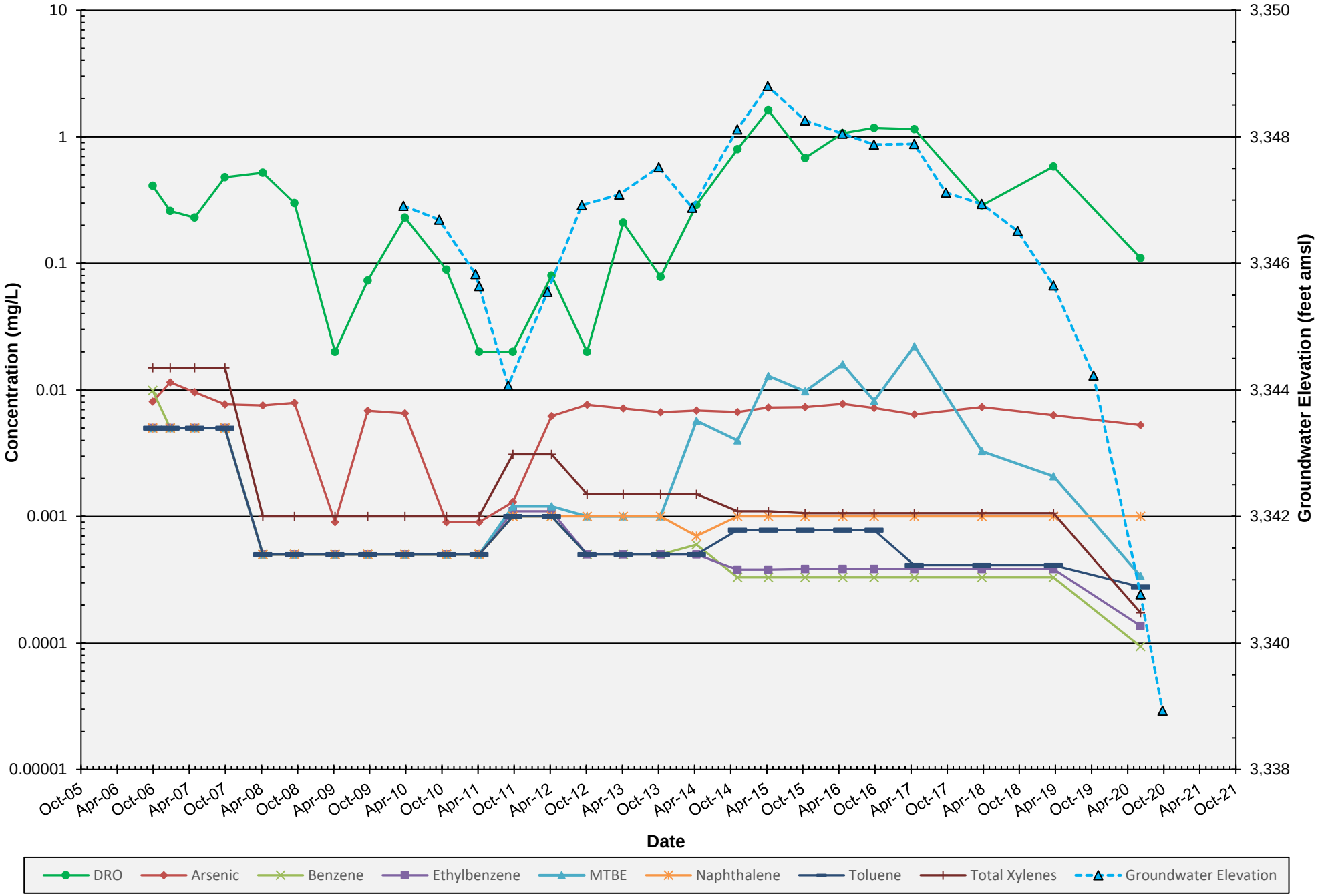
North Colony Landfarm



MW-56: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

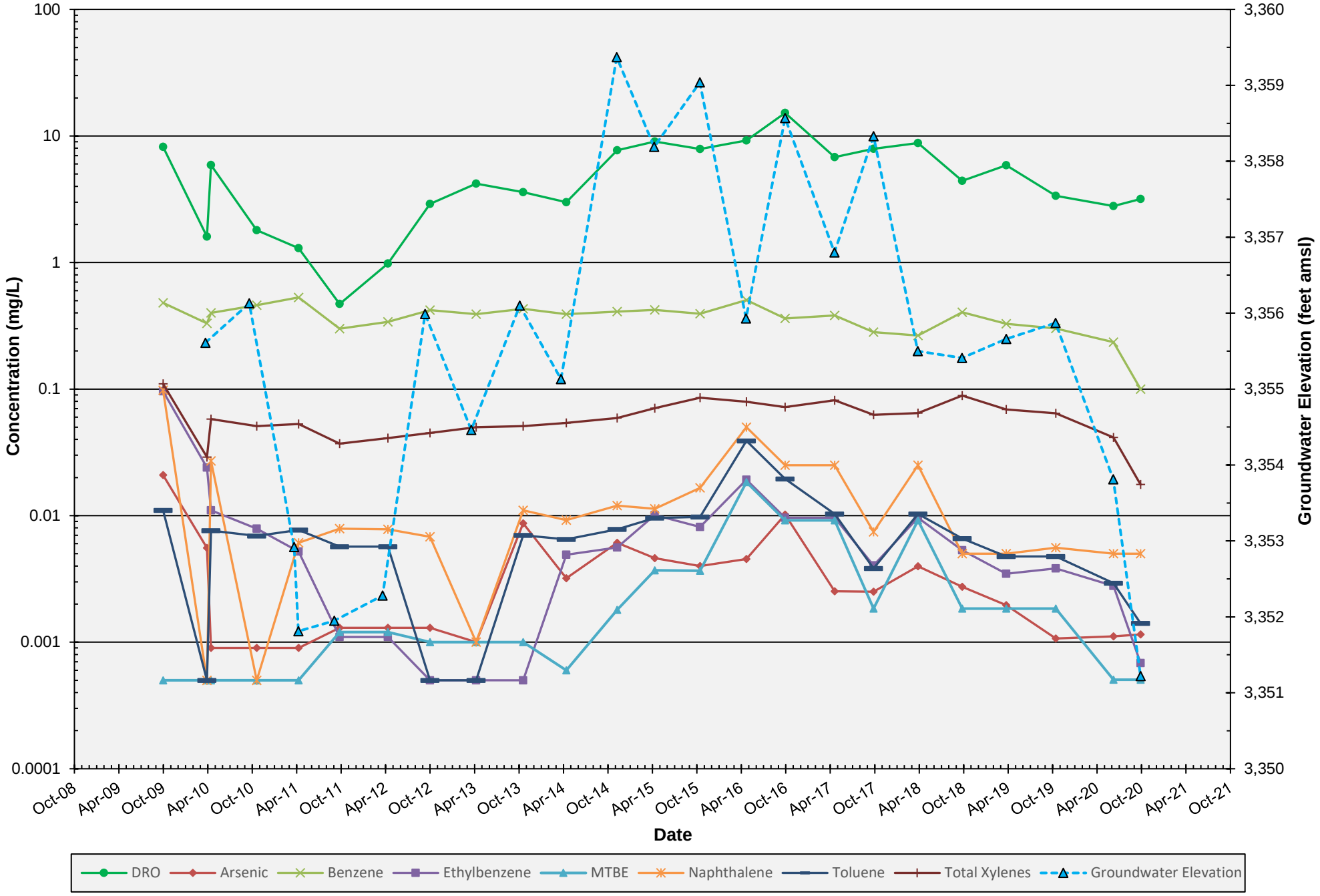
North Colony Landfarm



MW-108: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

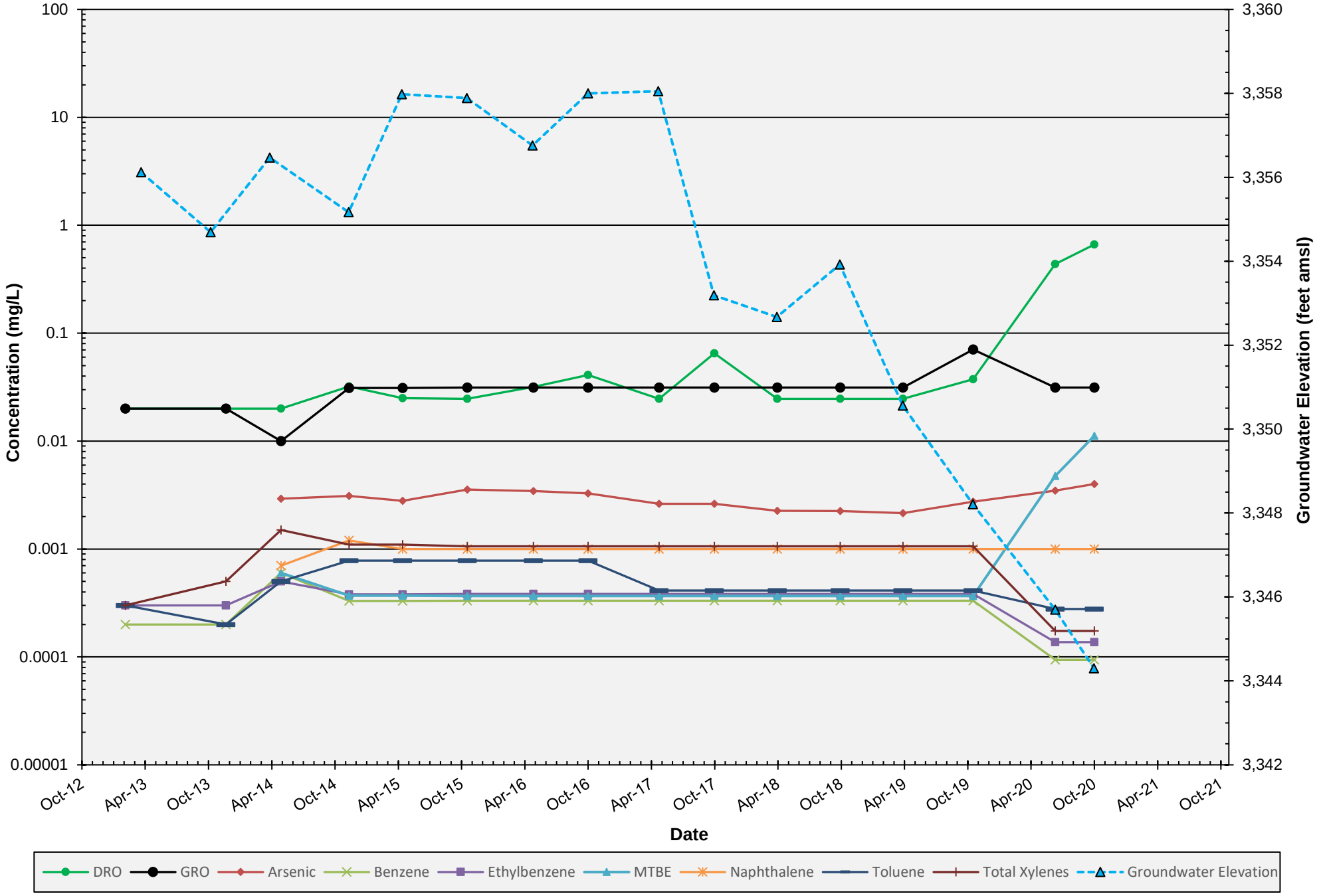
North Colony Landfarm



MW-114: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

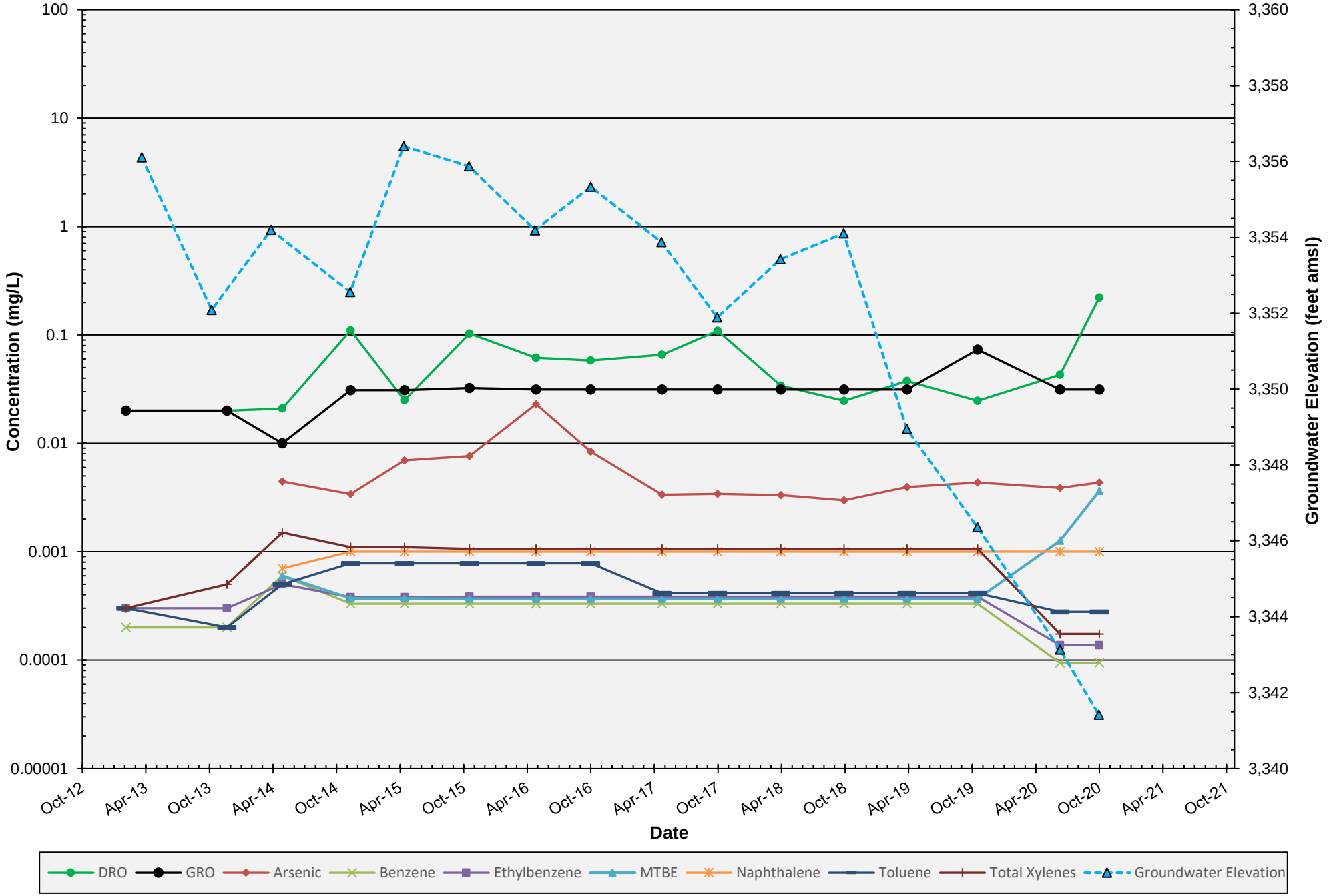
South Reverse Osmosis Reject Field



MW-115: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

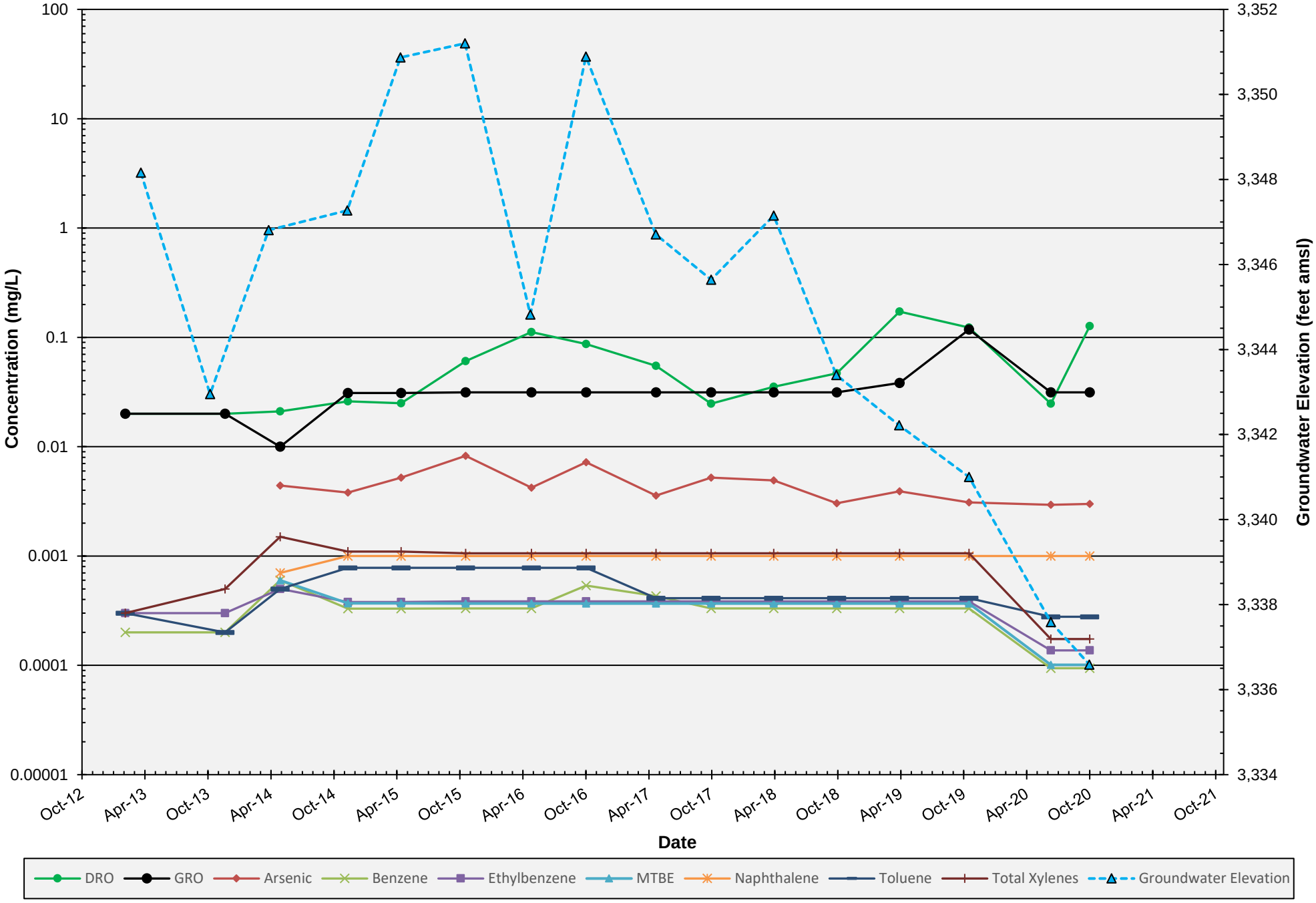
South Reverse Osmosis Reject Fields



MW-116: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

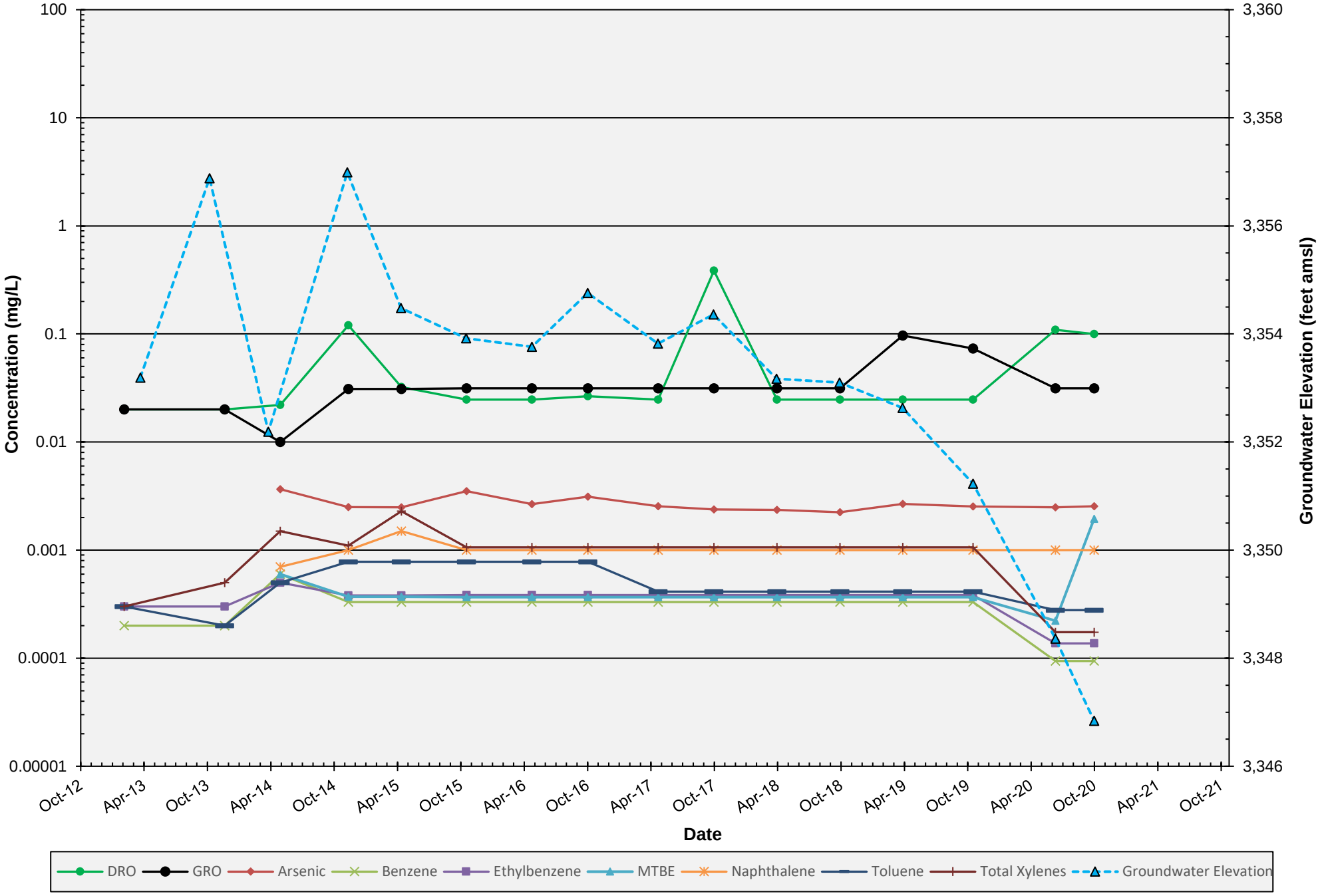
South Reverse Osmosis Reject Field



MW-117: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

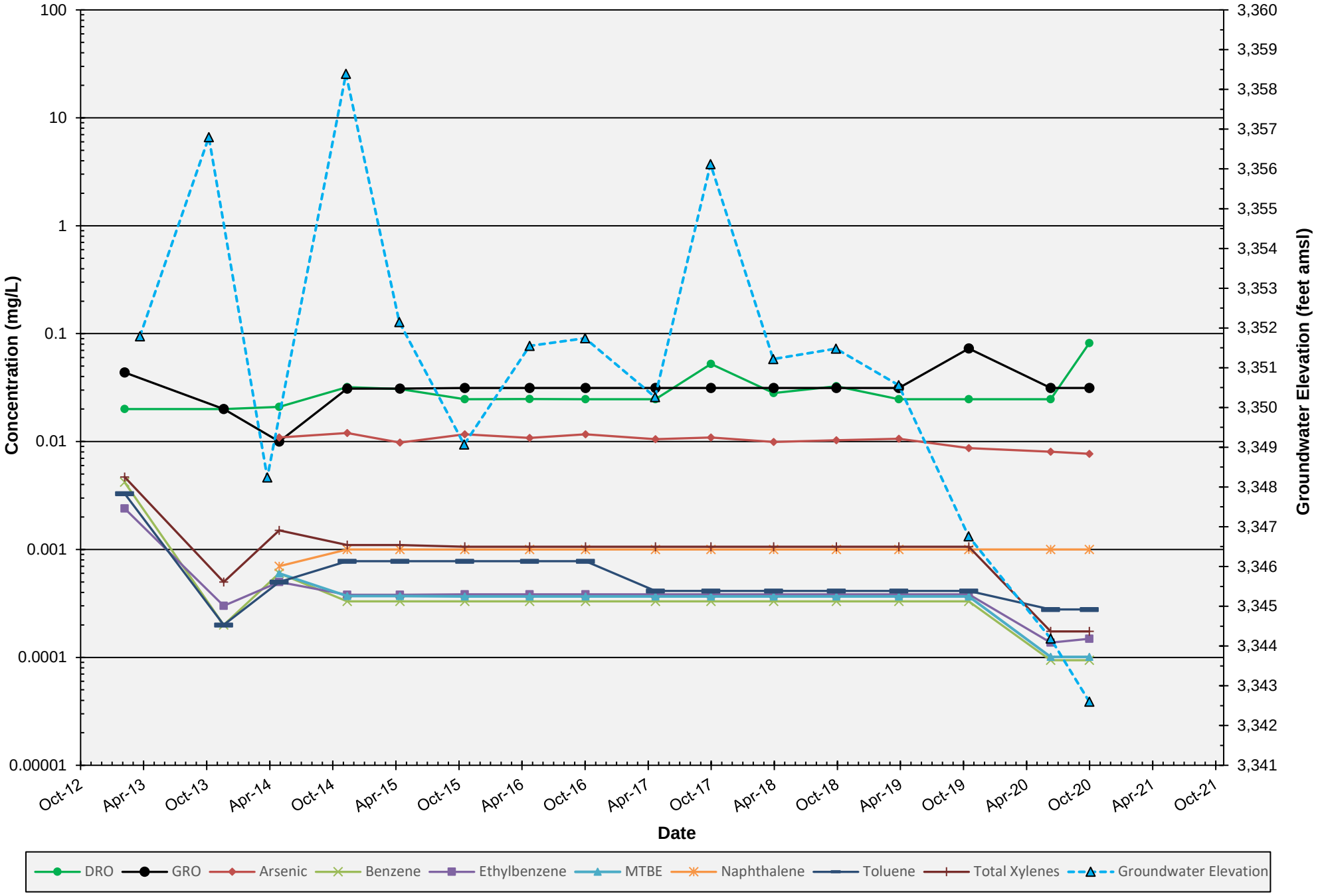
North Reverse Osmosis Reject Fields



MW-118: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

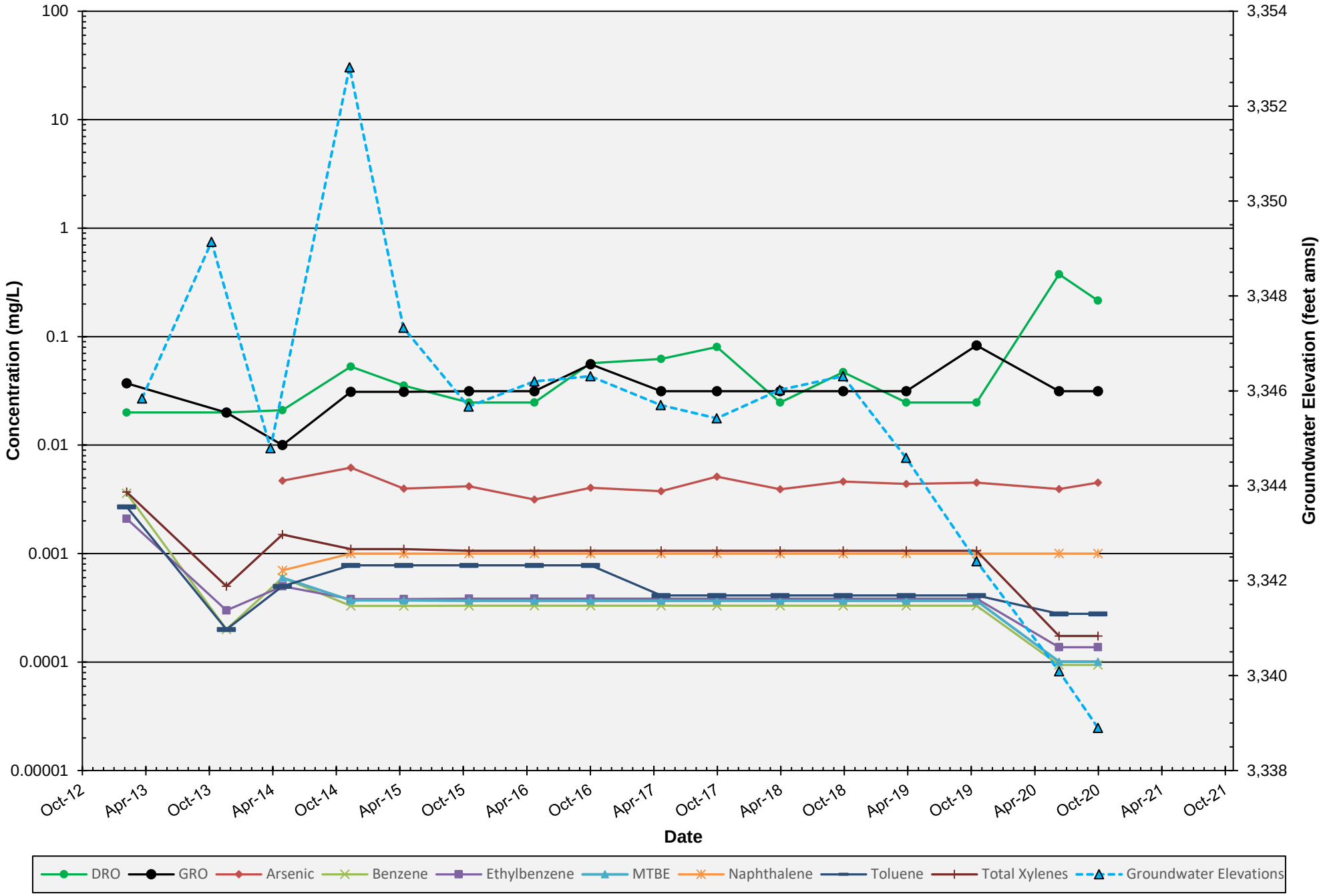
North Reverse Osmosis Reject Fields



MW-119: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

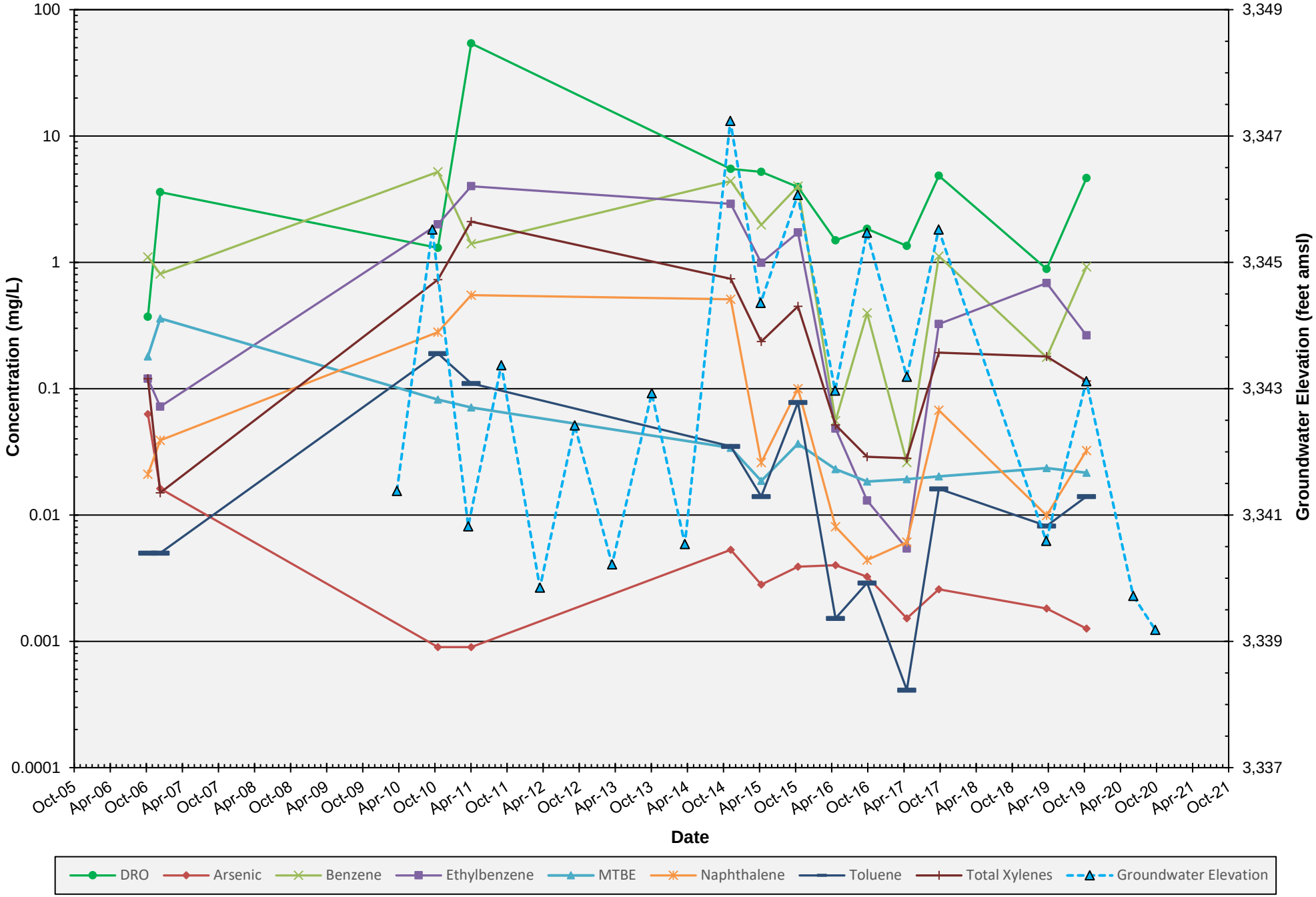
North Reverse Osmosis Reject Fields



KWB-2R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

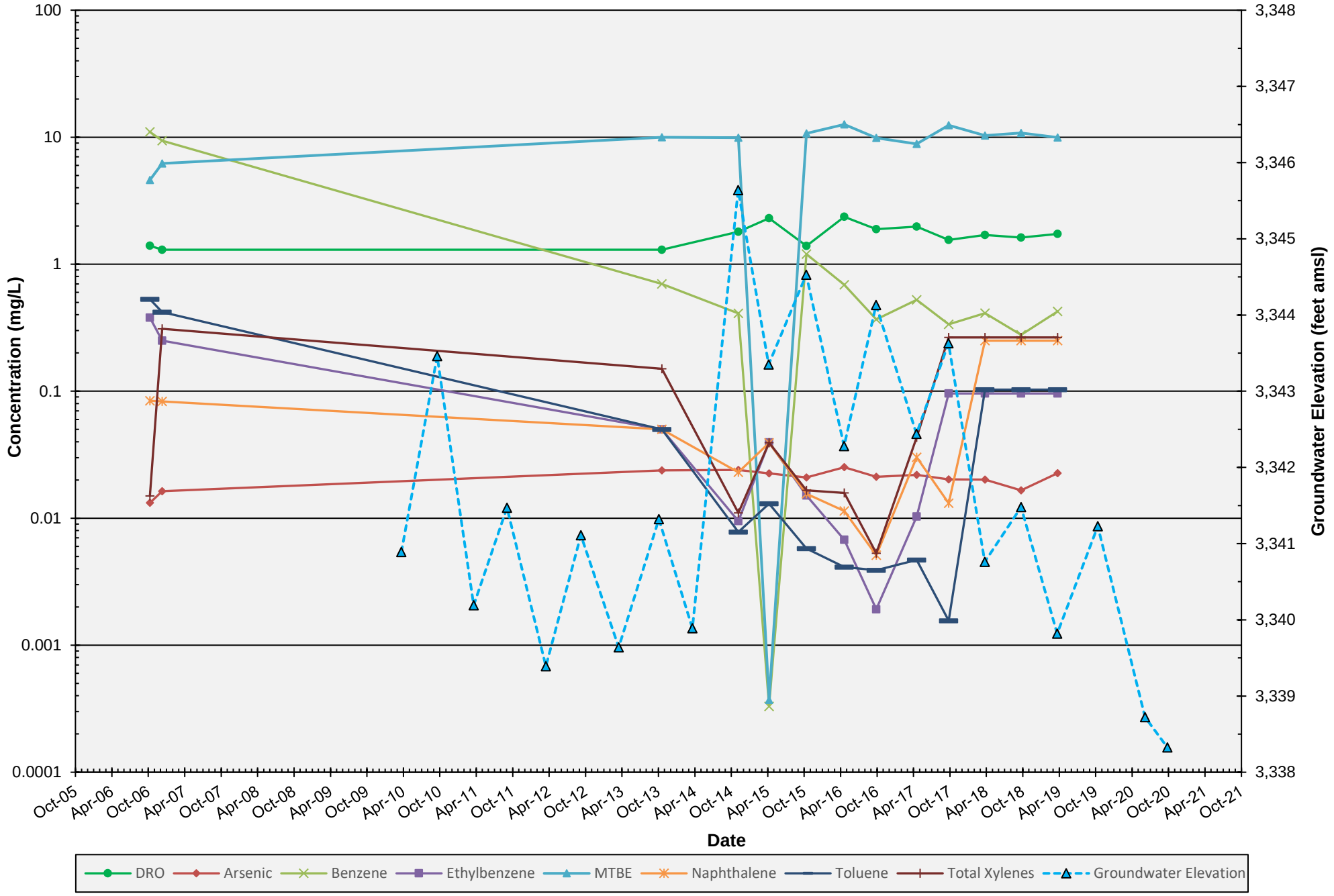
South Refinery Area



KWB-5: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

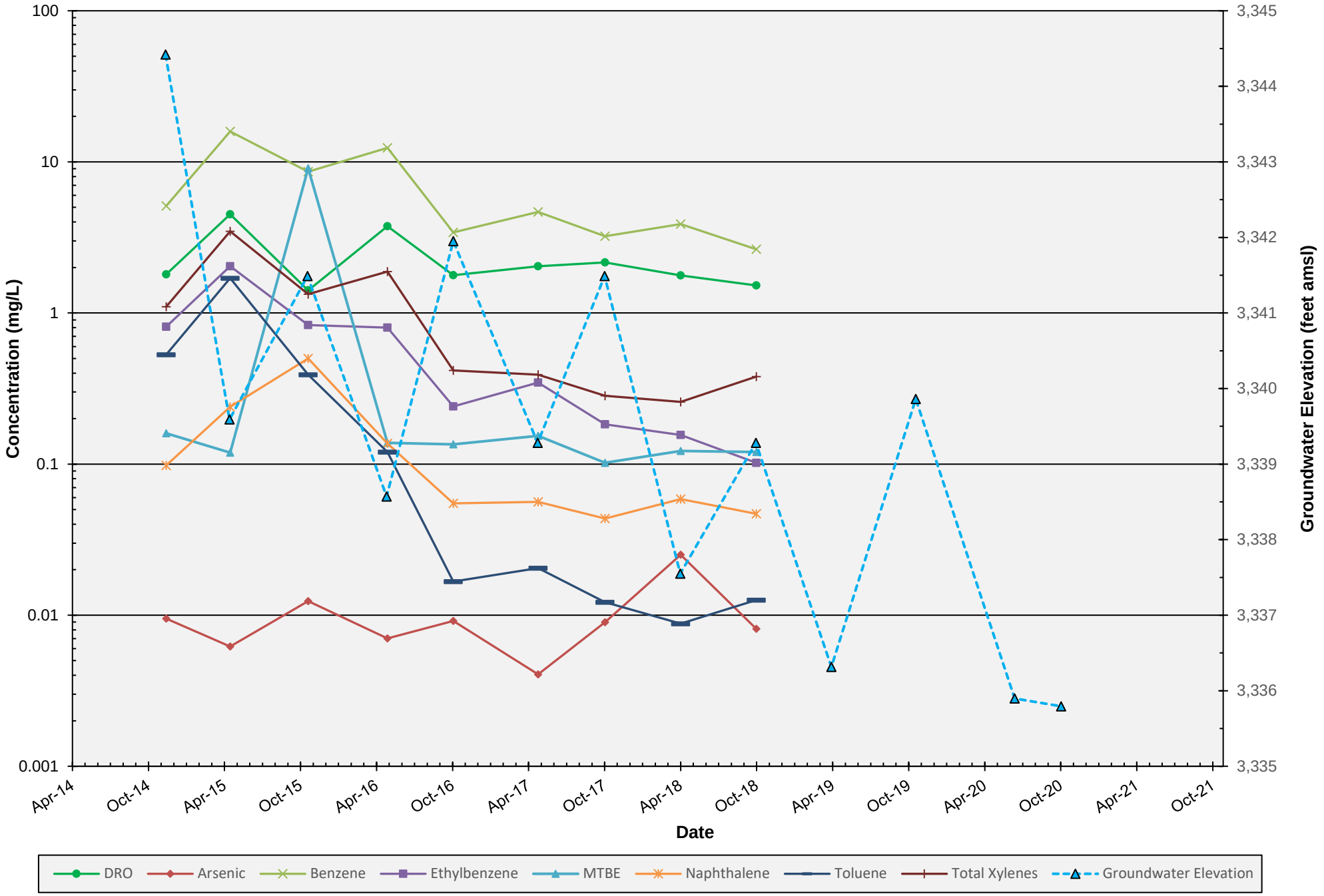
South Refinery Area



KWB-6: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

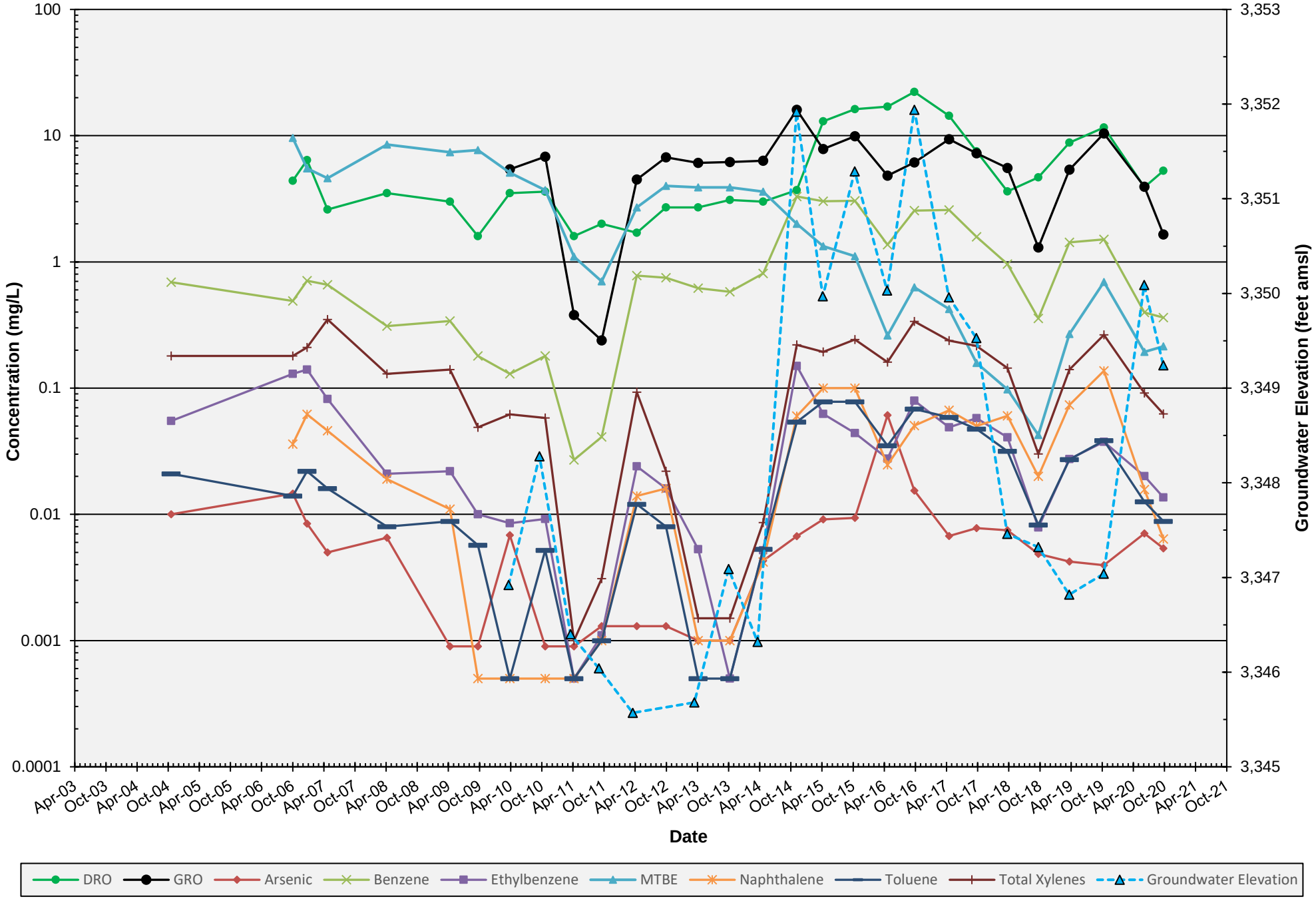
South Refinery Area



MW-28: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

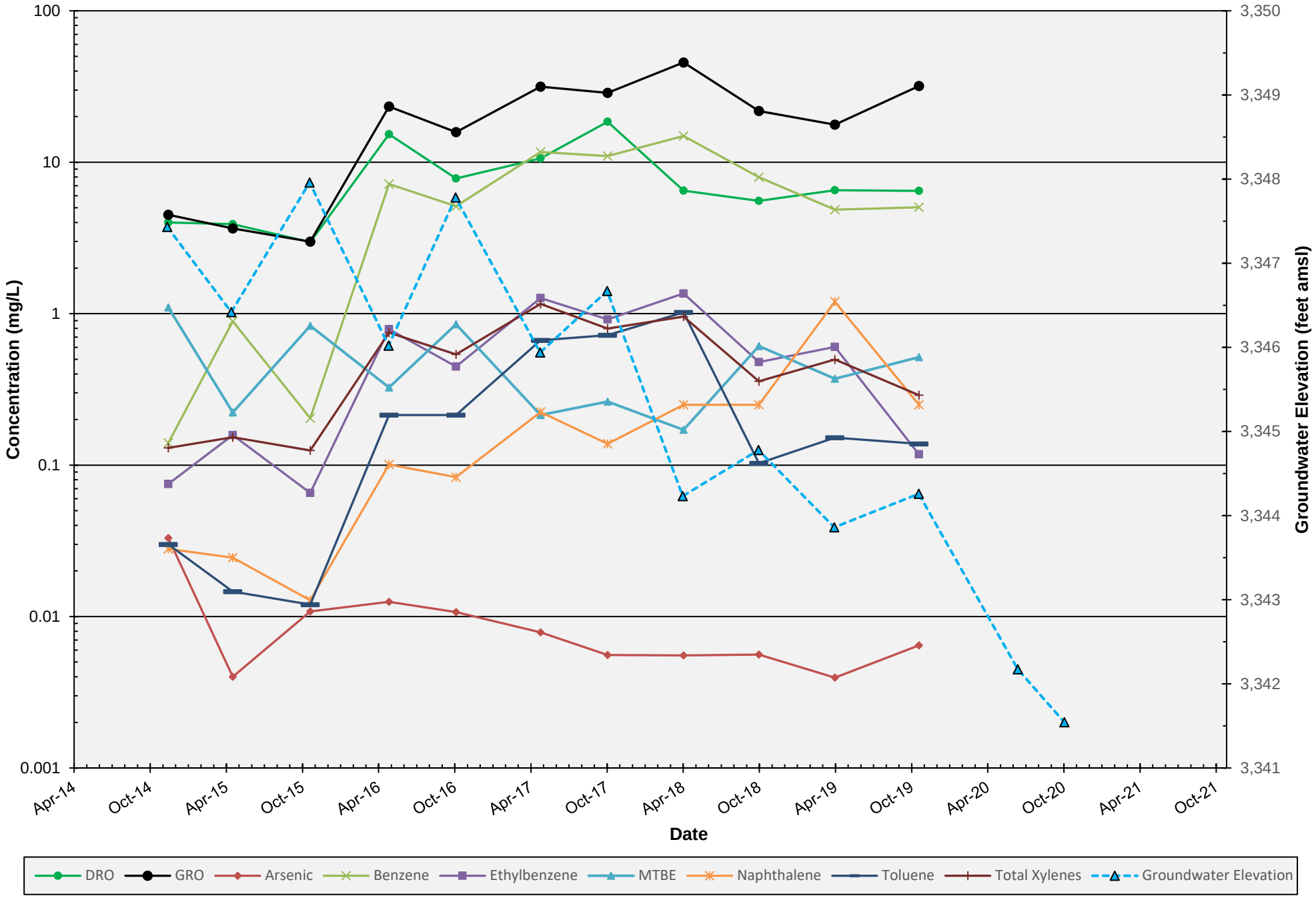
South Refinery Area



MW-48: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

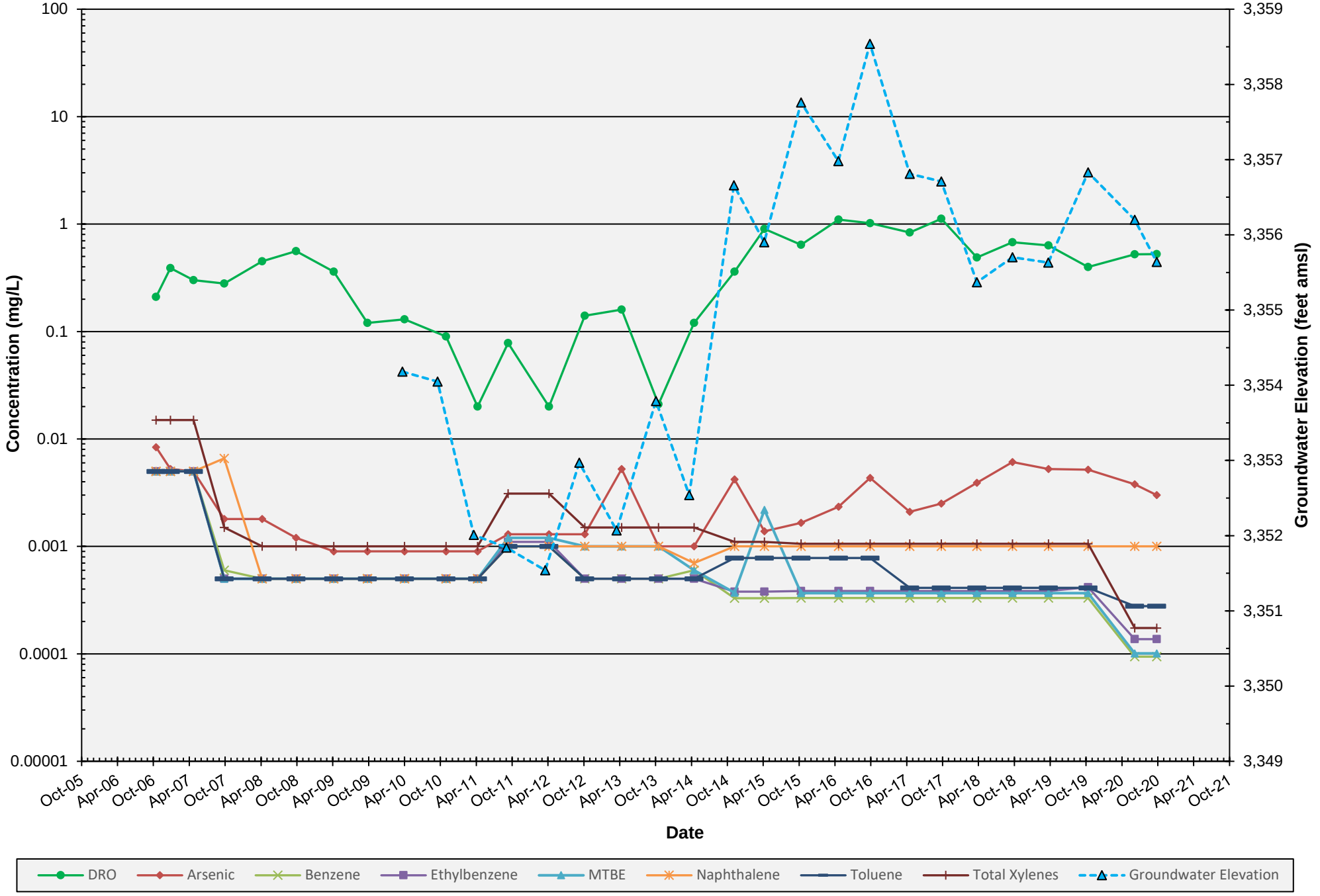
South Refinery Area



MW-50: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

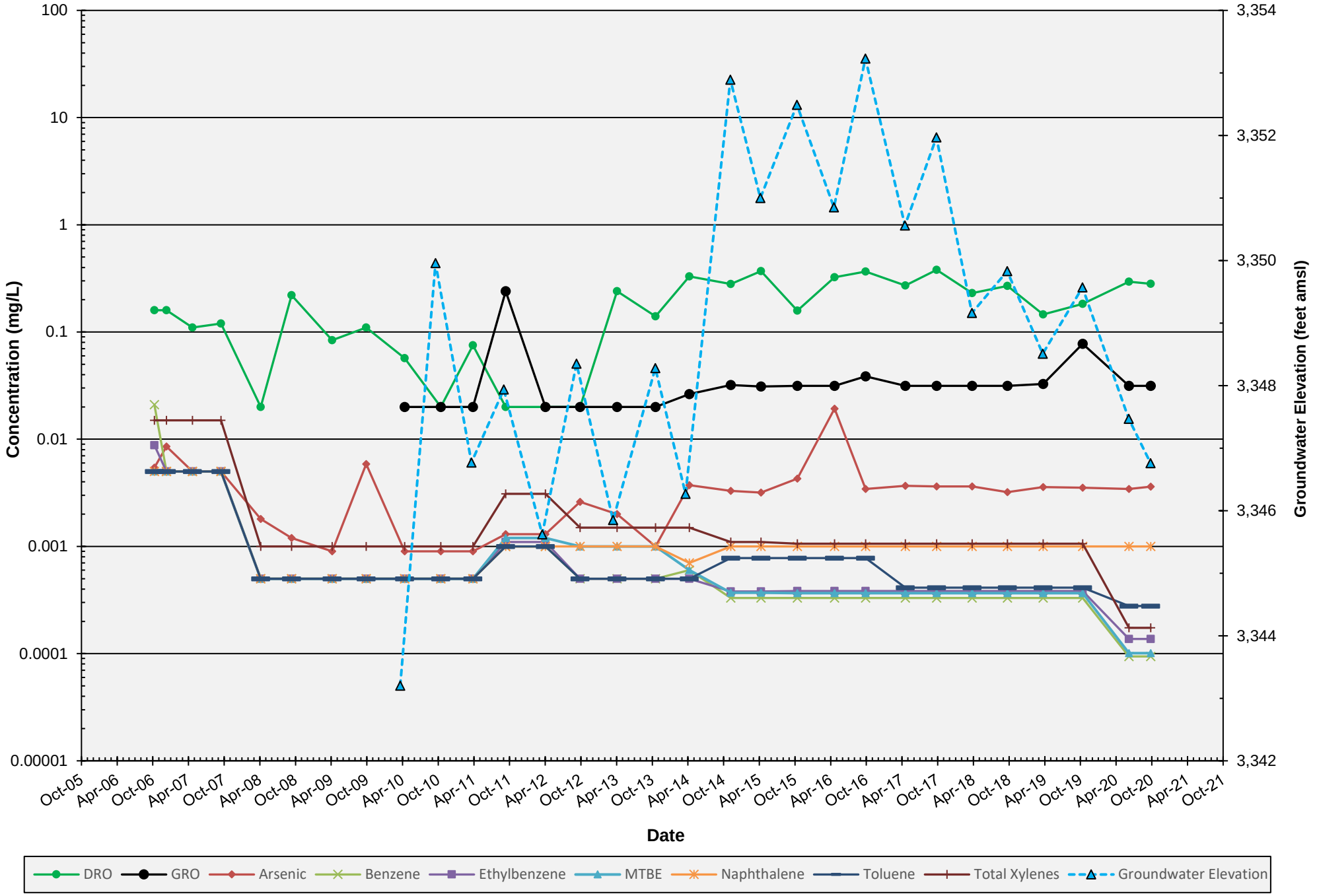
South Refinery Area



MW-52: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

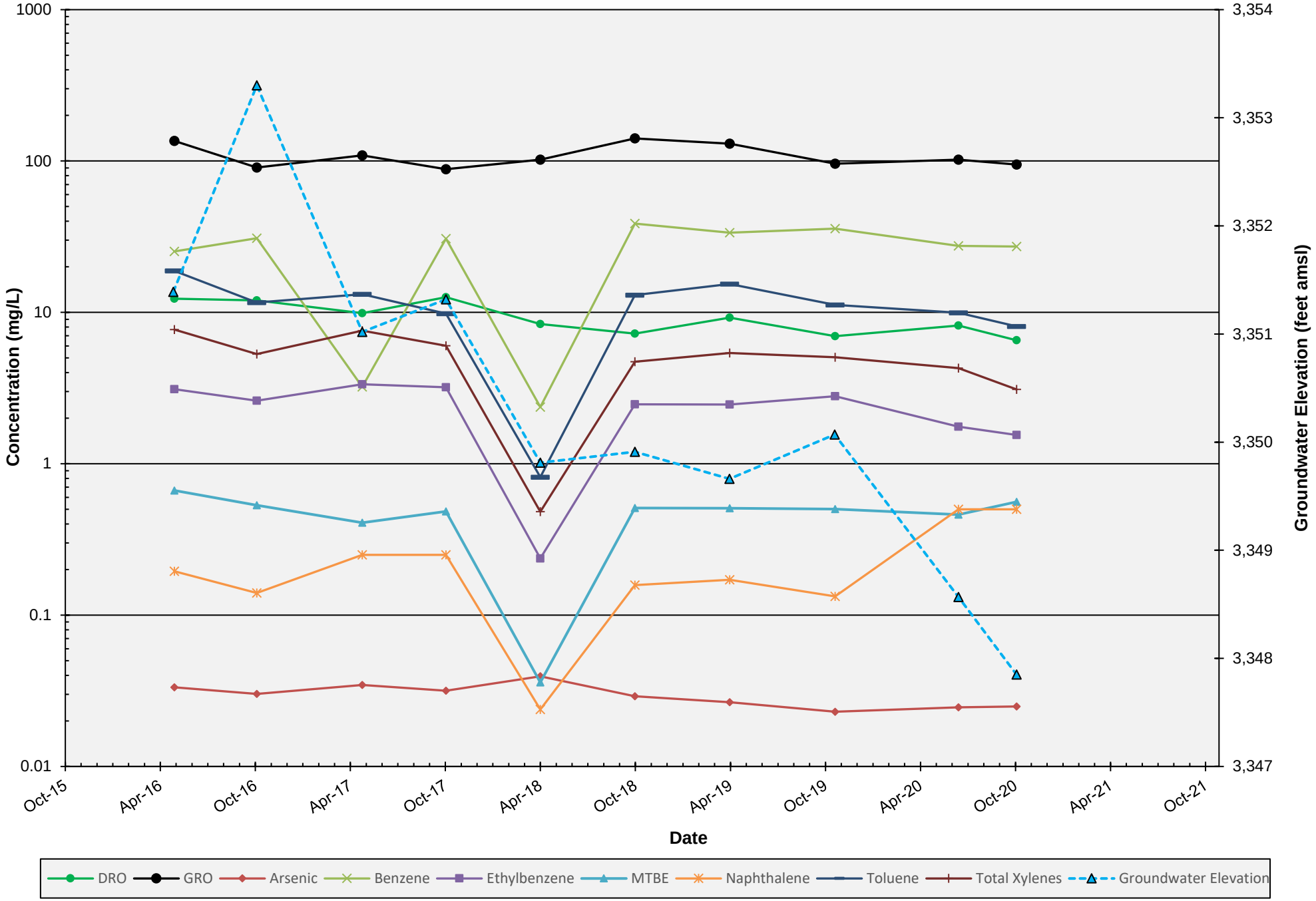
South Refinery Area



MW-64: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

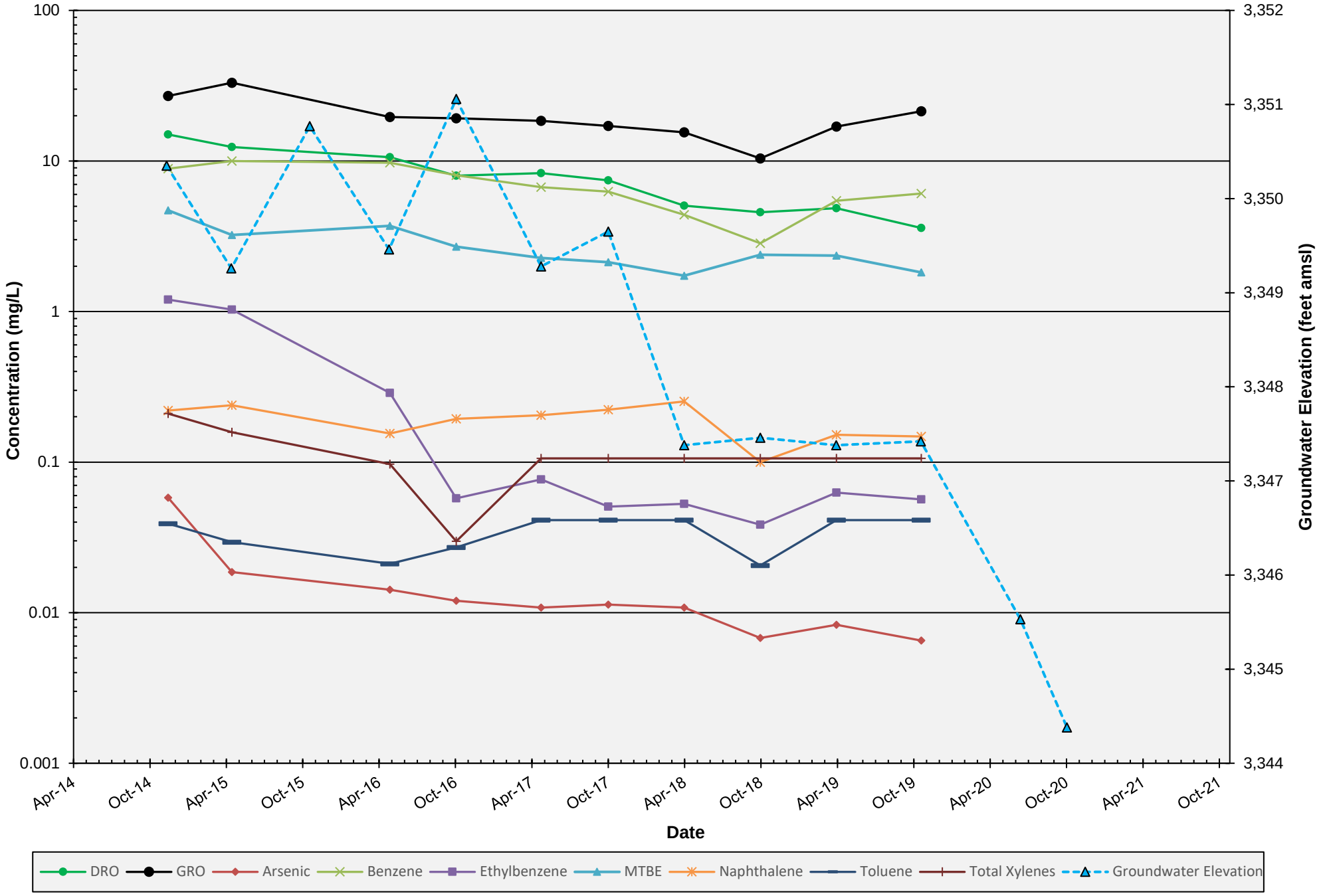
South Refinery Area



MW-65: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

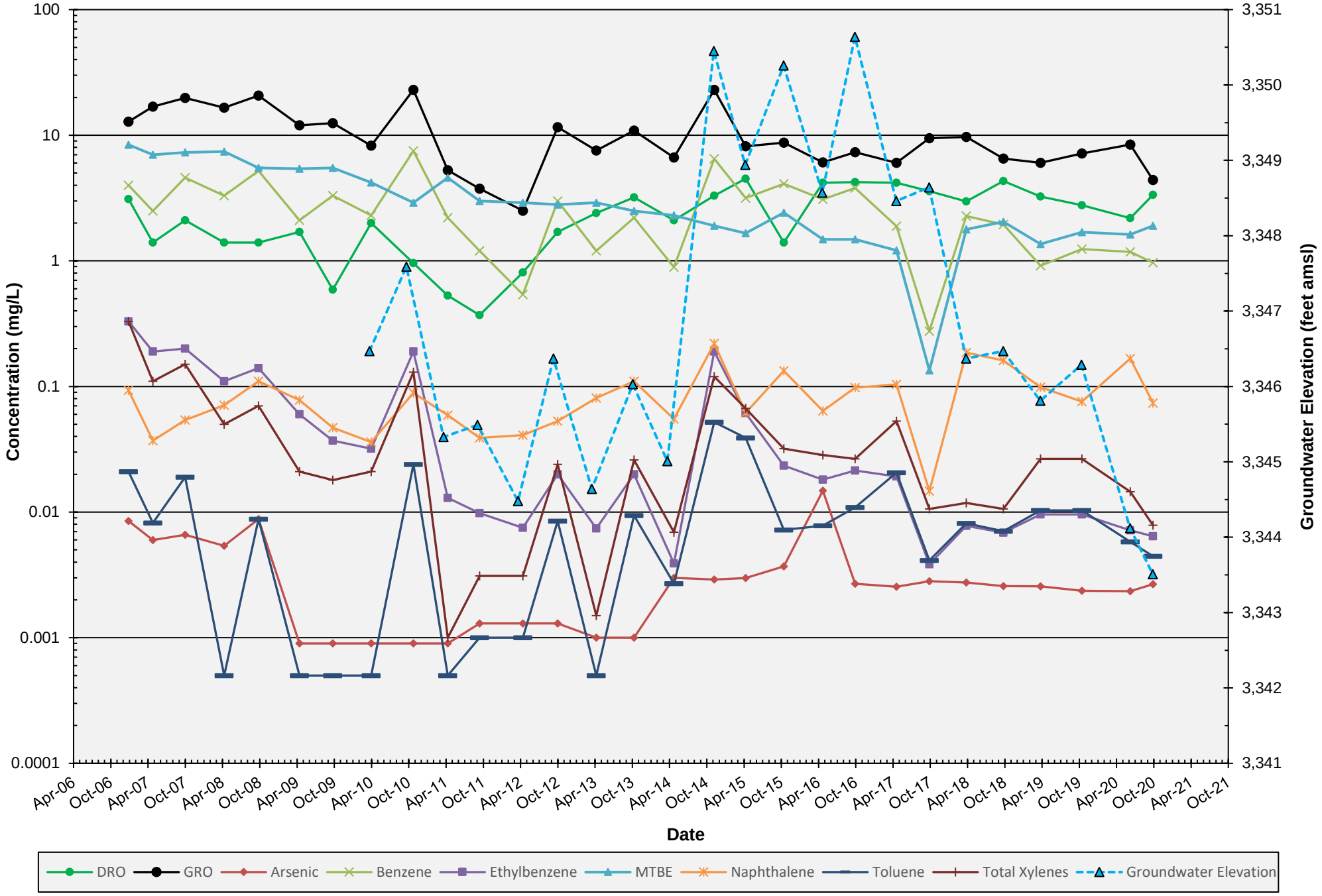
South Refinery Area



MW-66: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

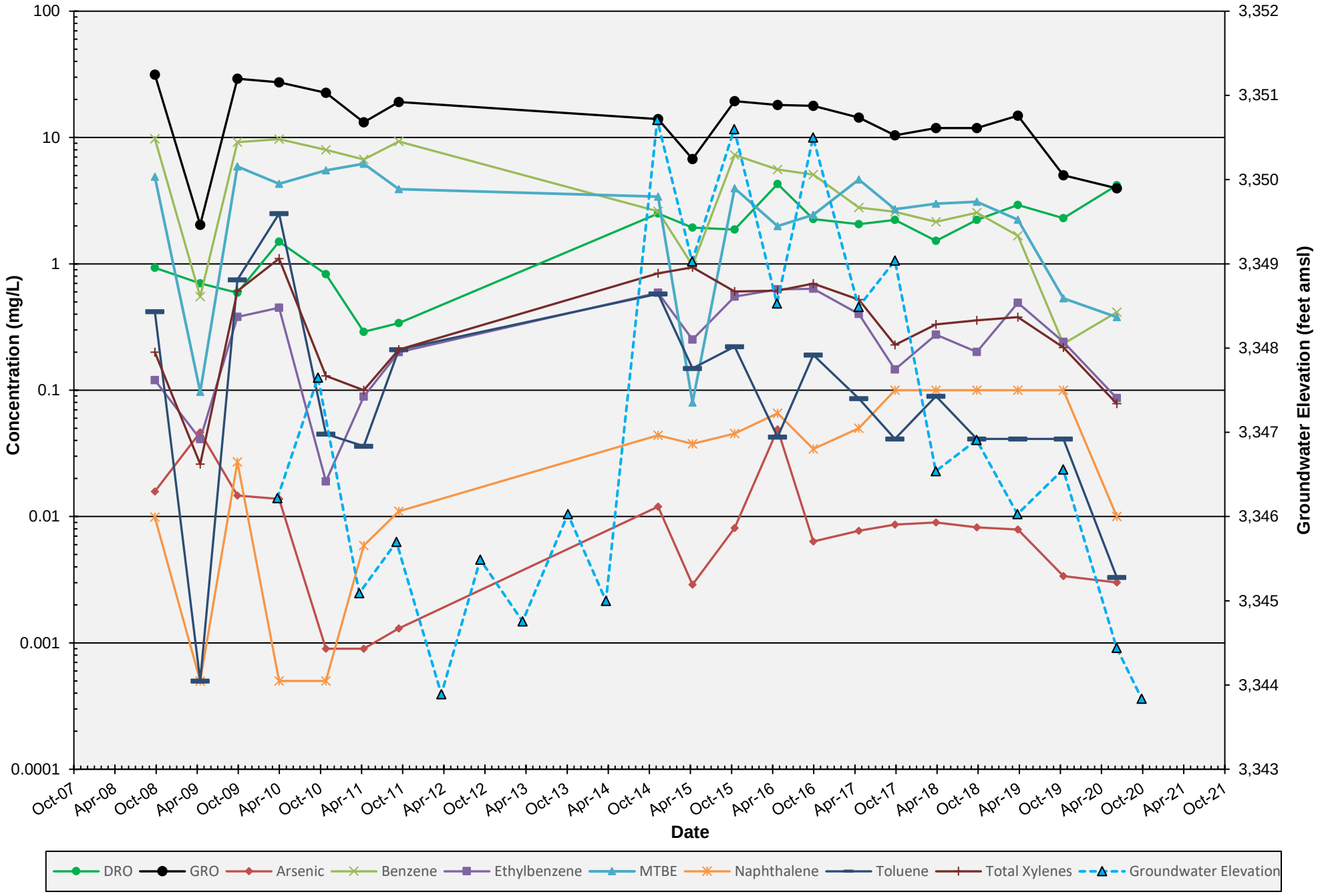
South Refinery Area



MW-99: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

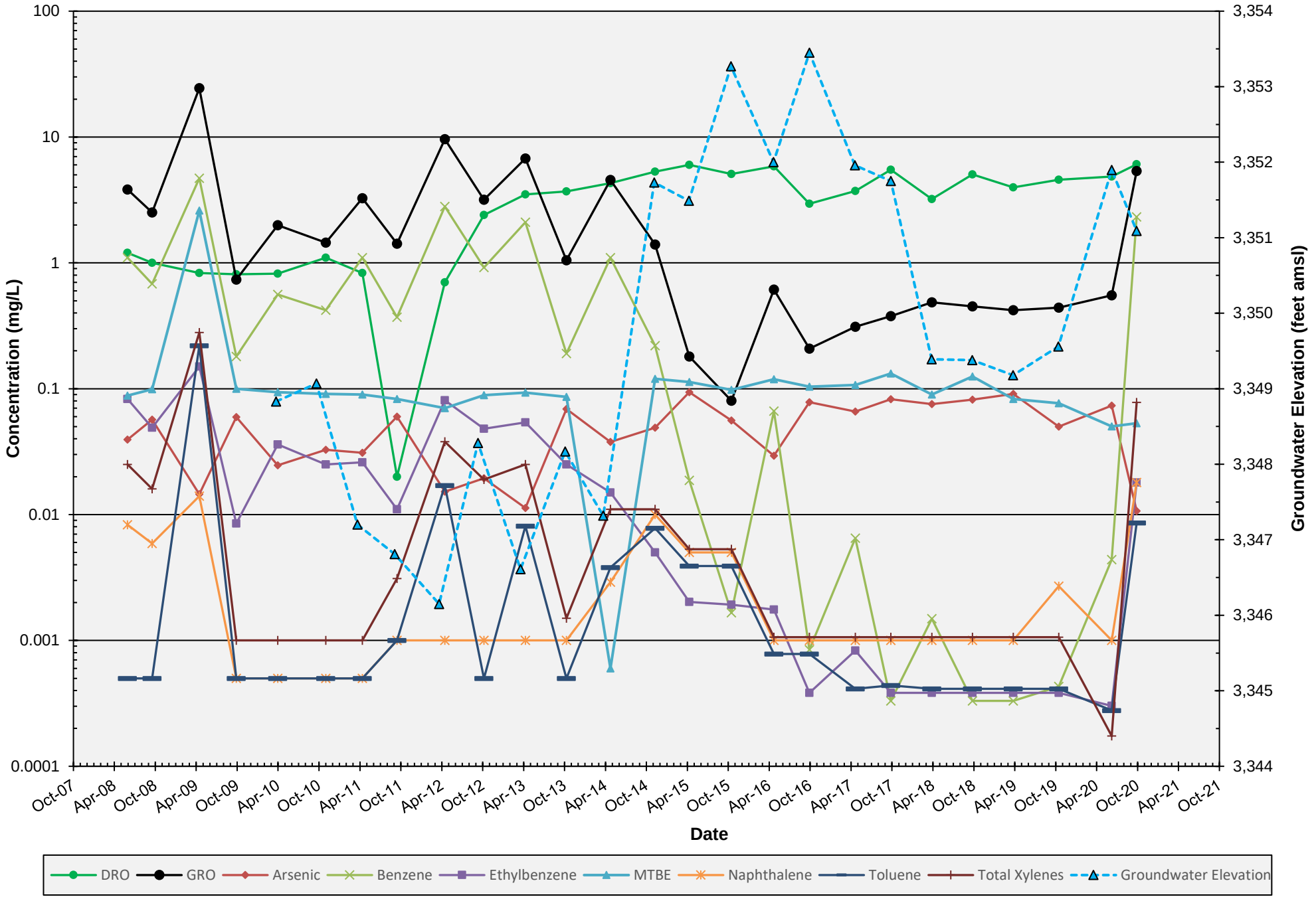
South Refinery Area



MW-101: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

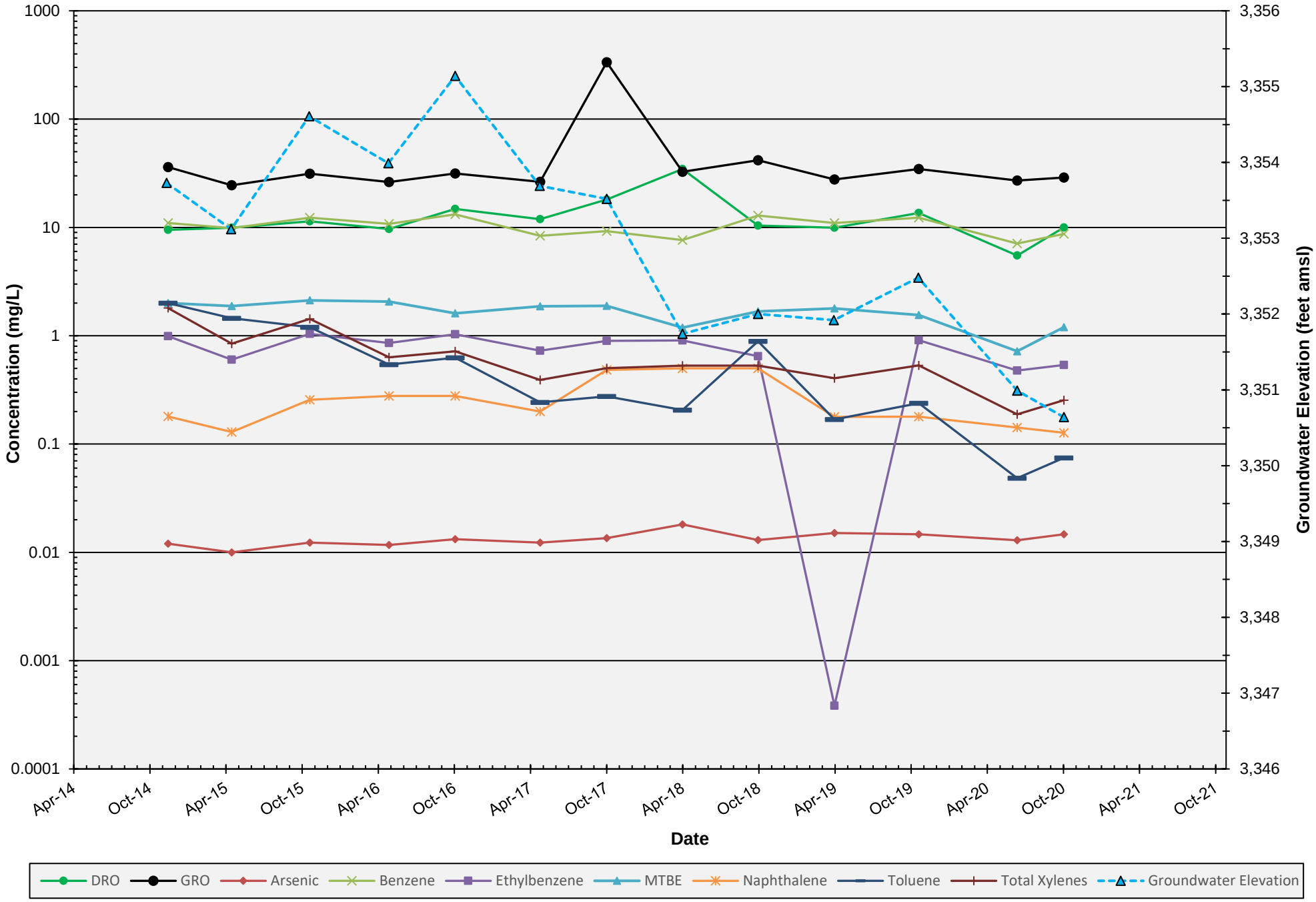
South Refinery Area



MW-102: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

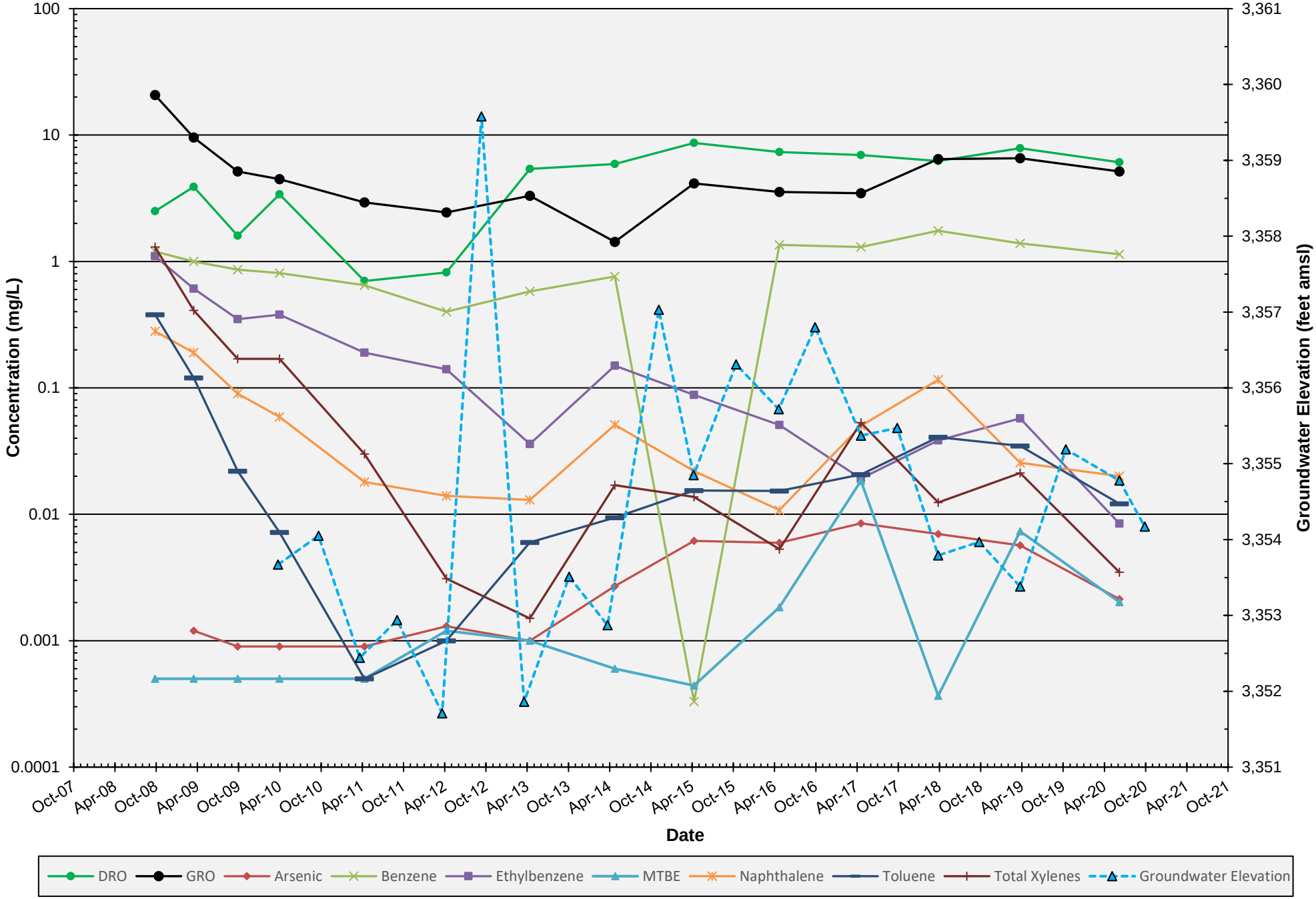
South Refinery Area



MW-103: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

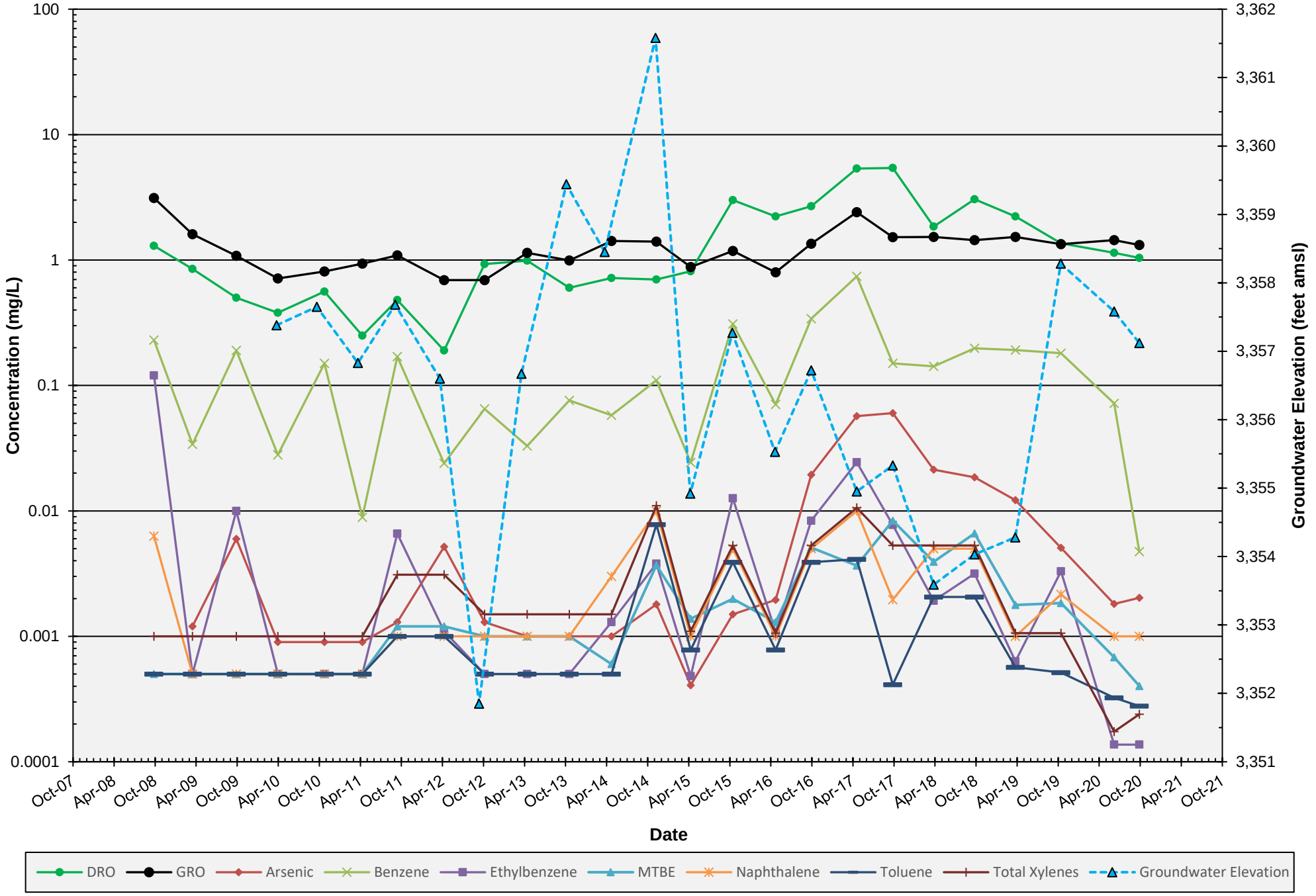
South Refinery Area



MW-104: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

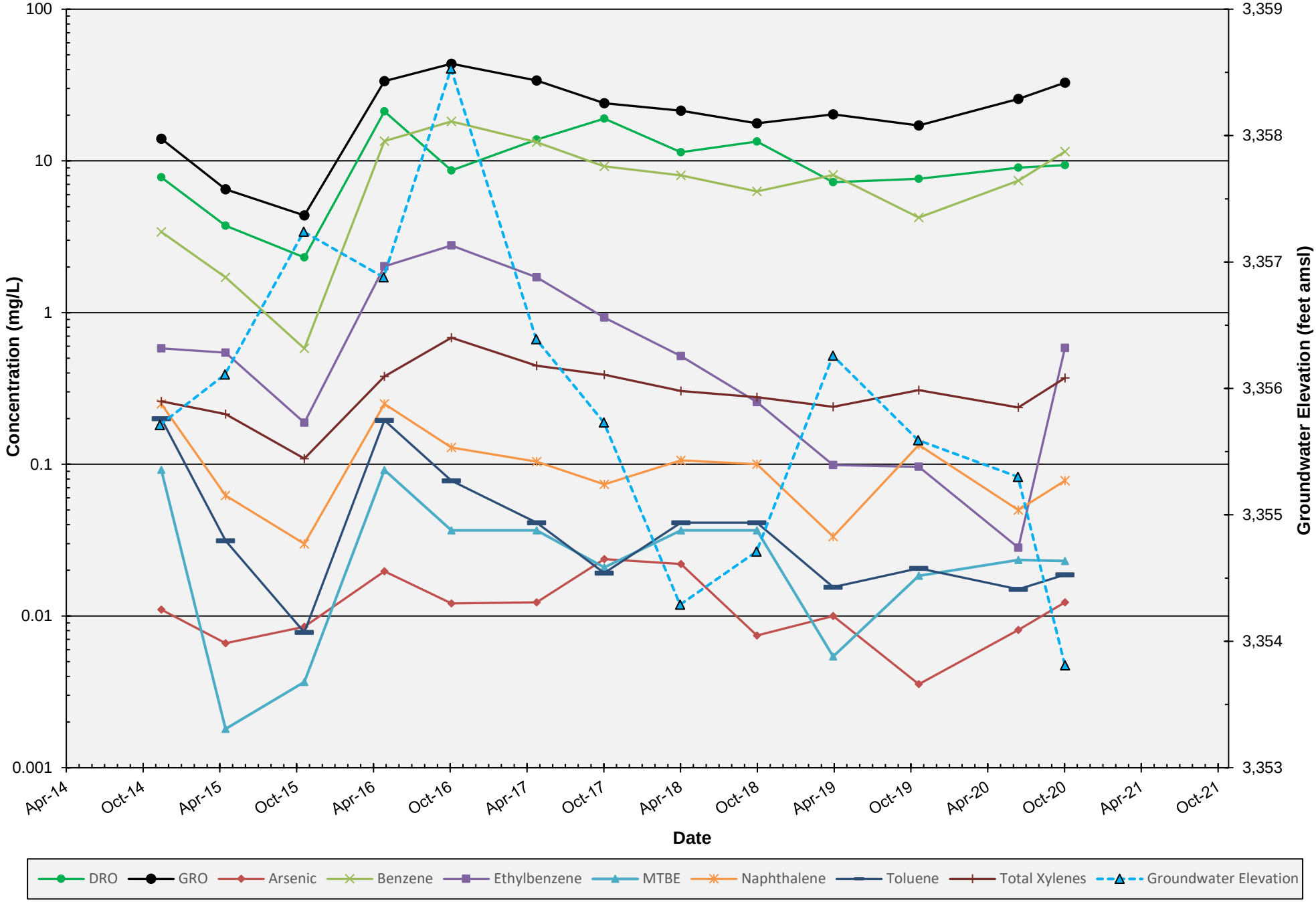
South Refinery Area



MW-105: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

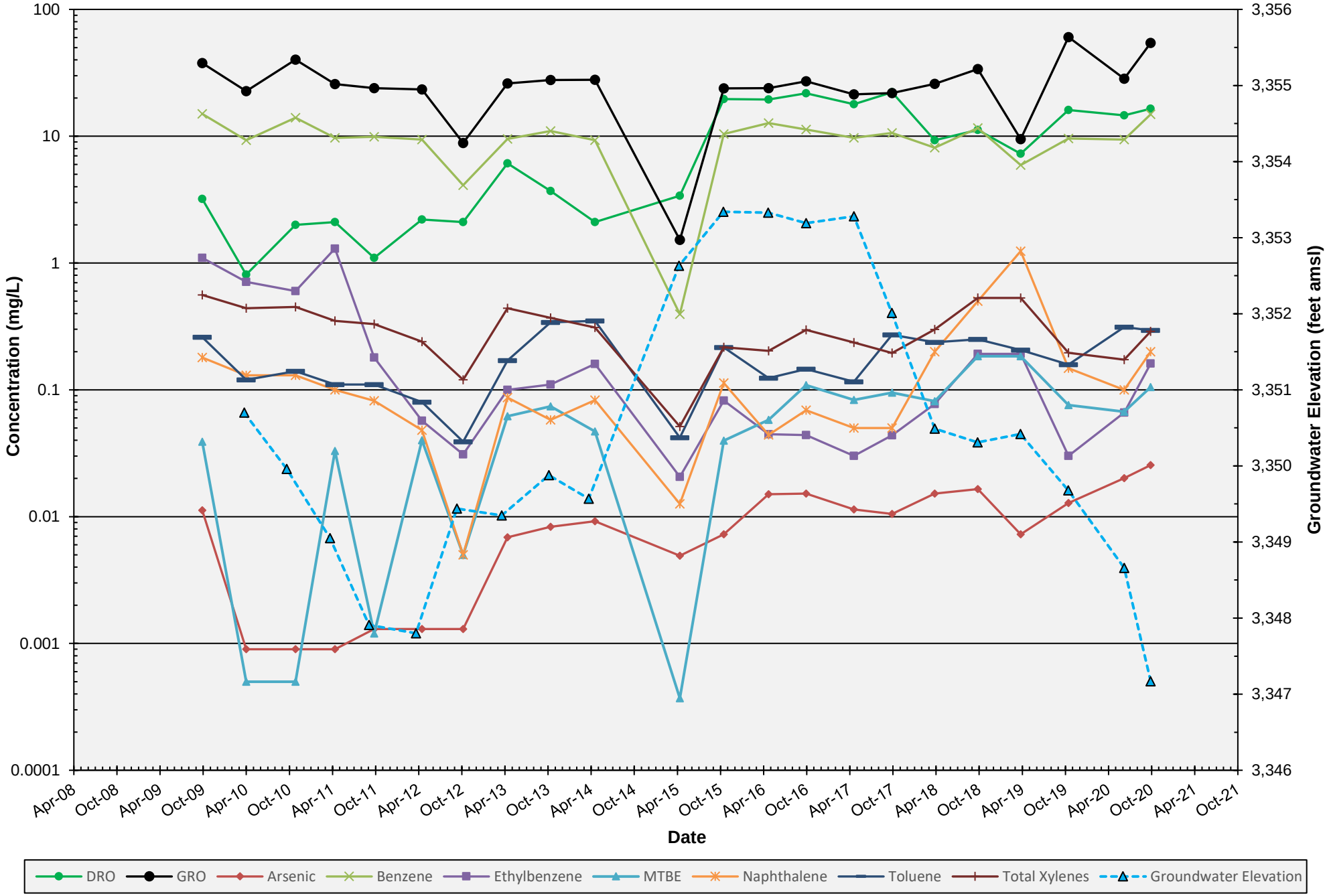
South Refinery Area



MW-106: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

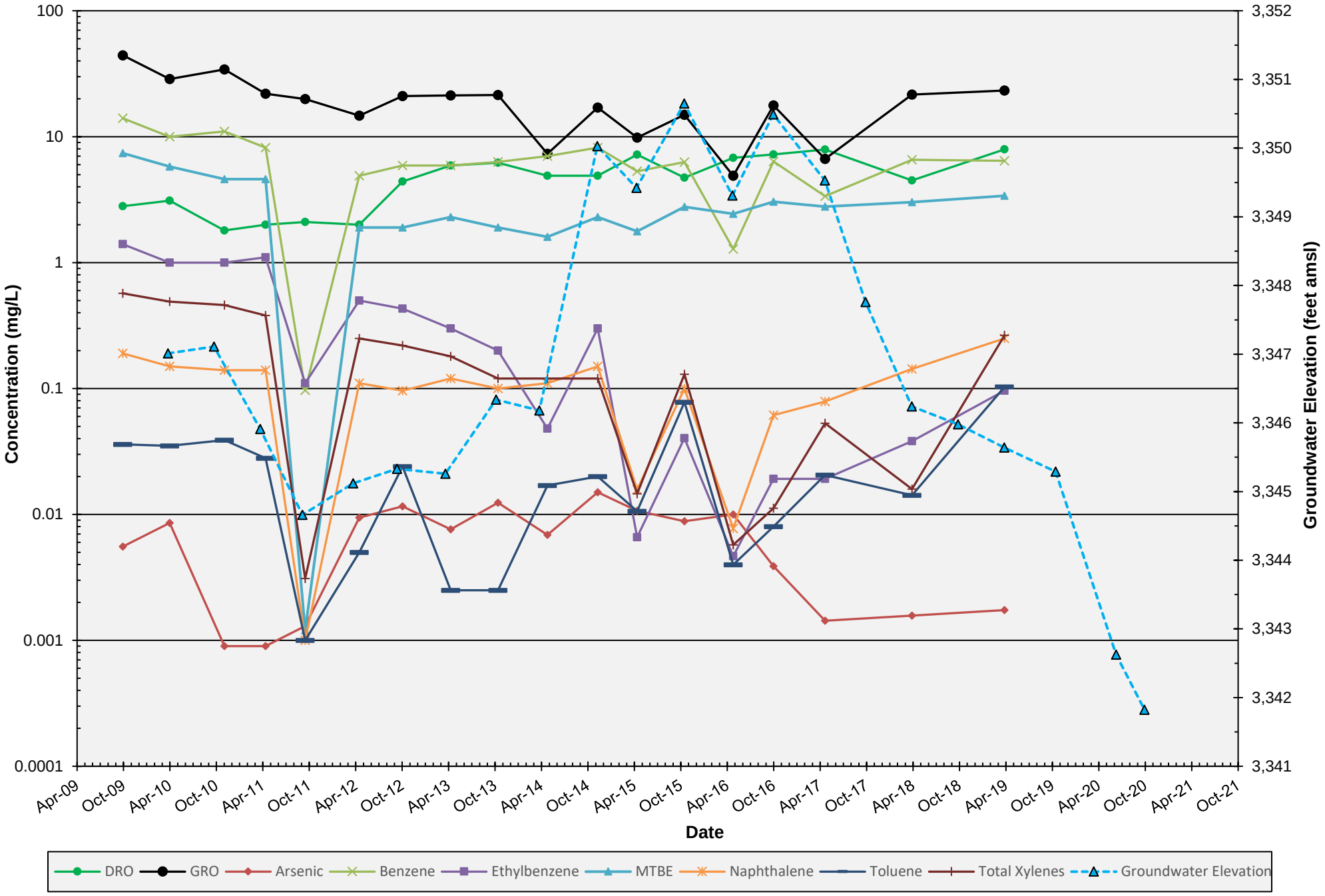
South Refinery Area



MW-107: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

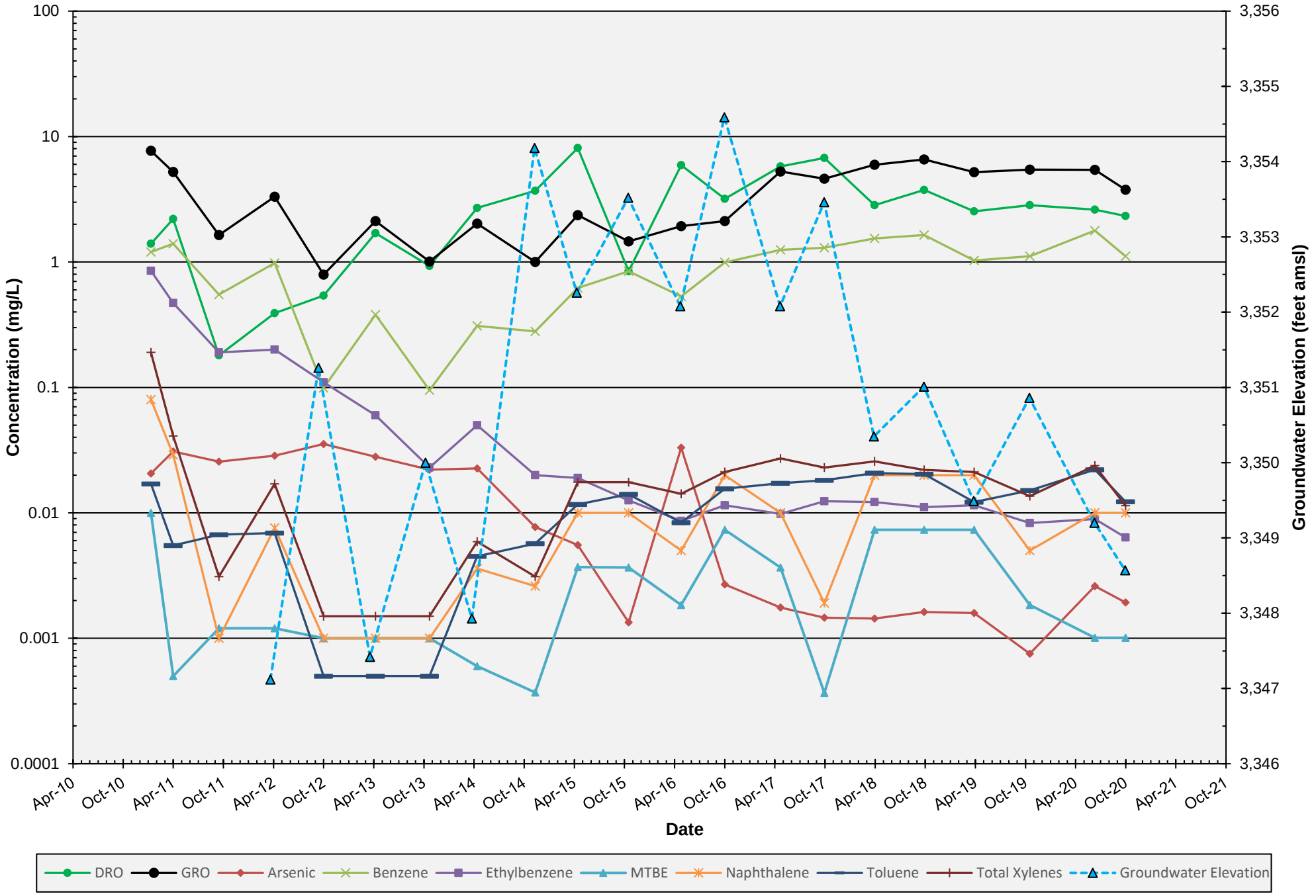
South Refinery Area



MW-109: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

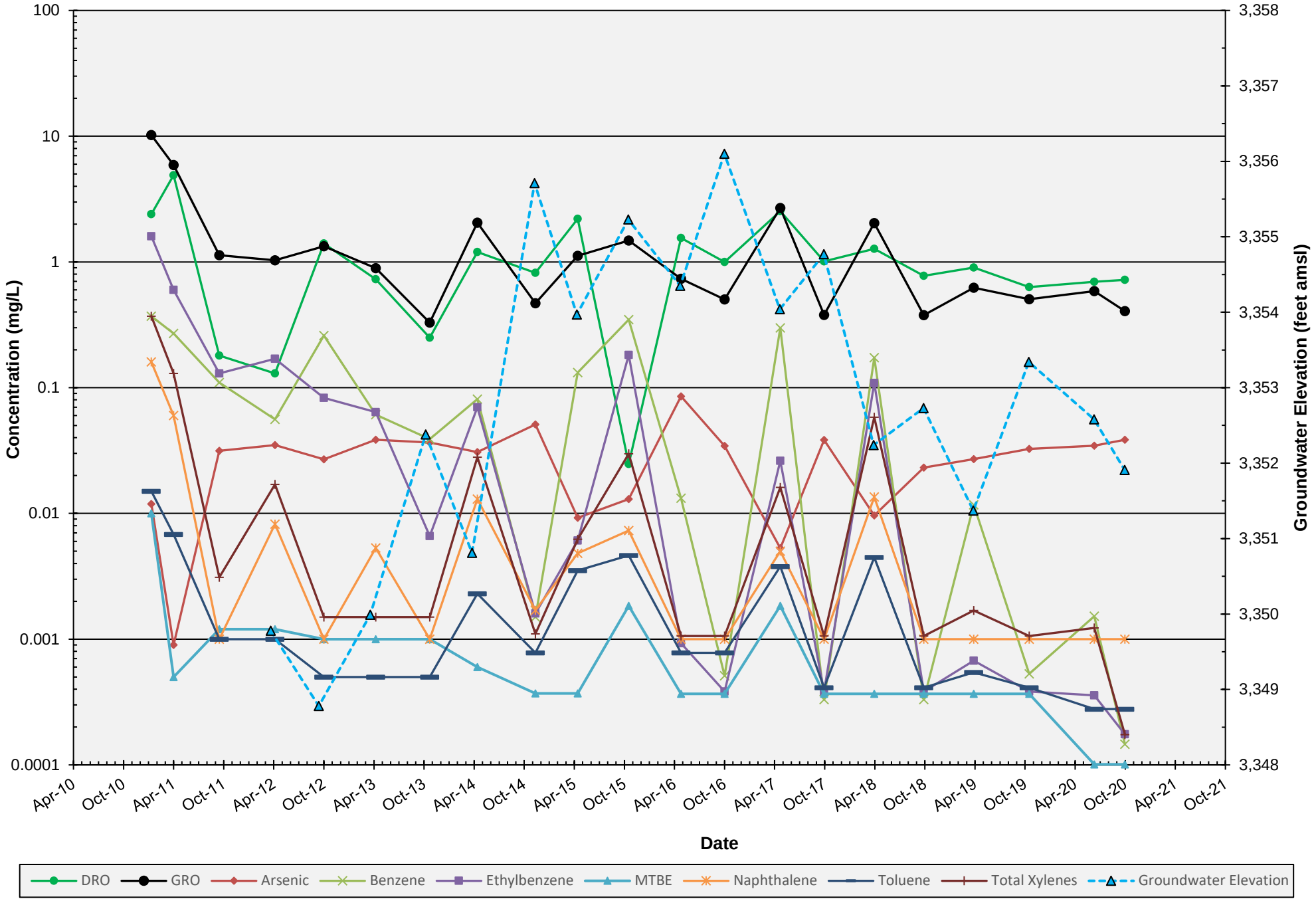
South Refinery Area



MW-110: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

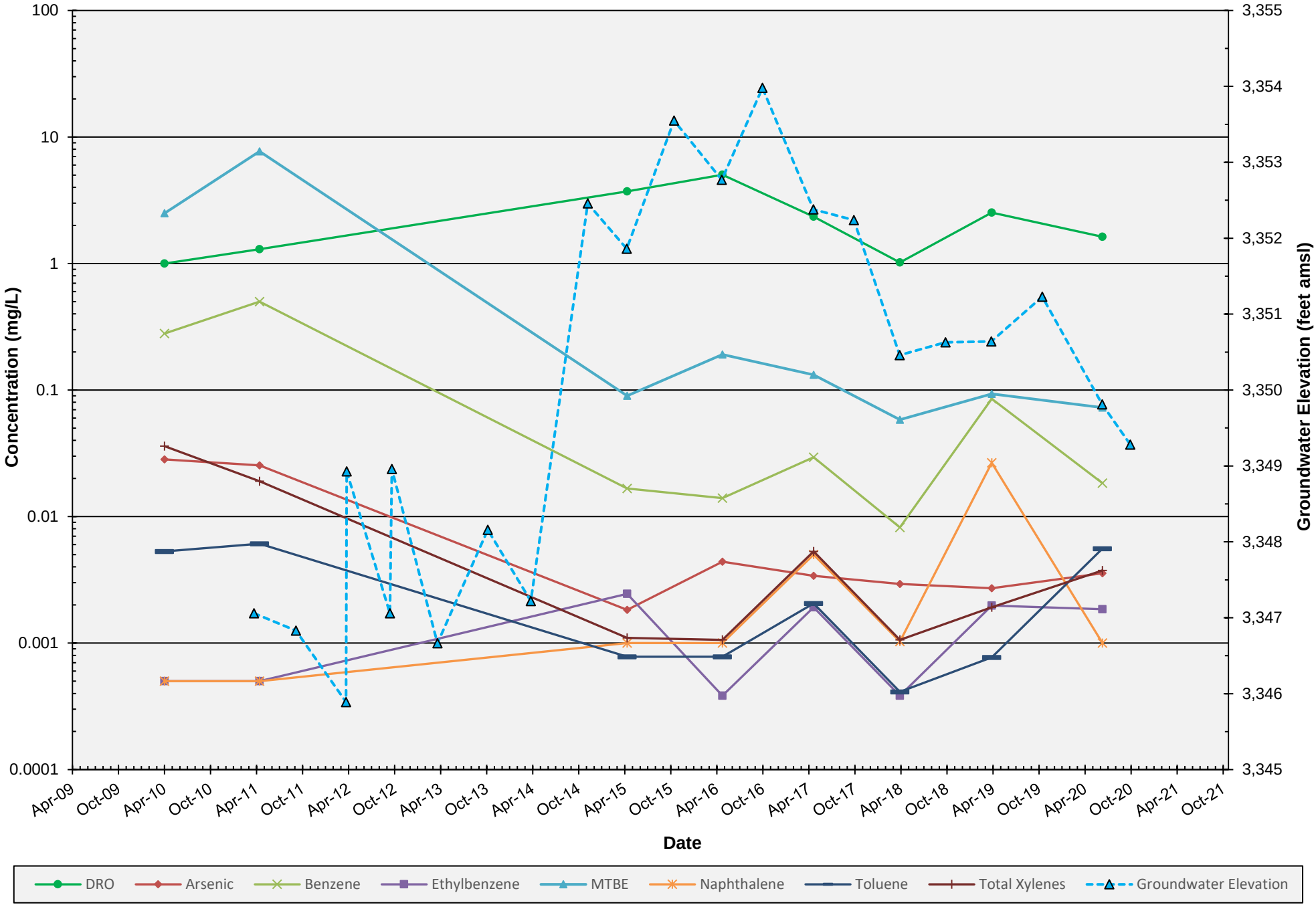
South Refinery Area



RW-4: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

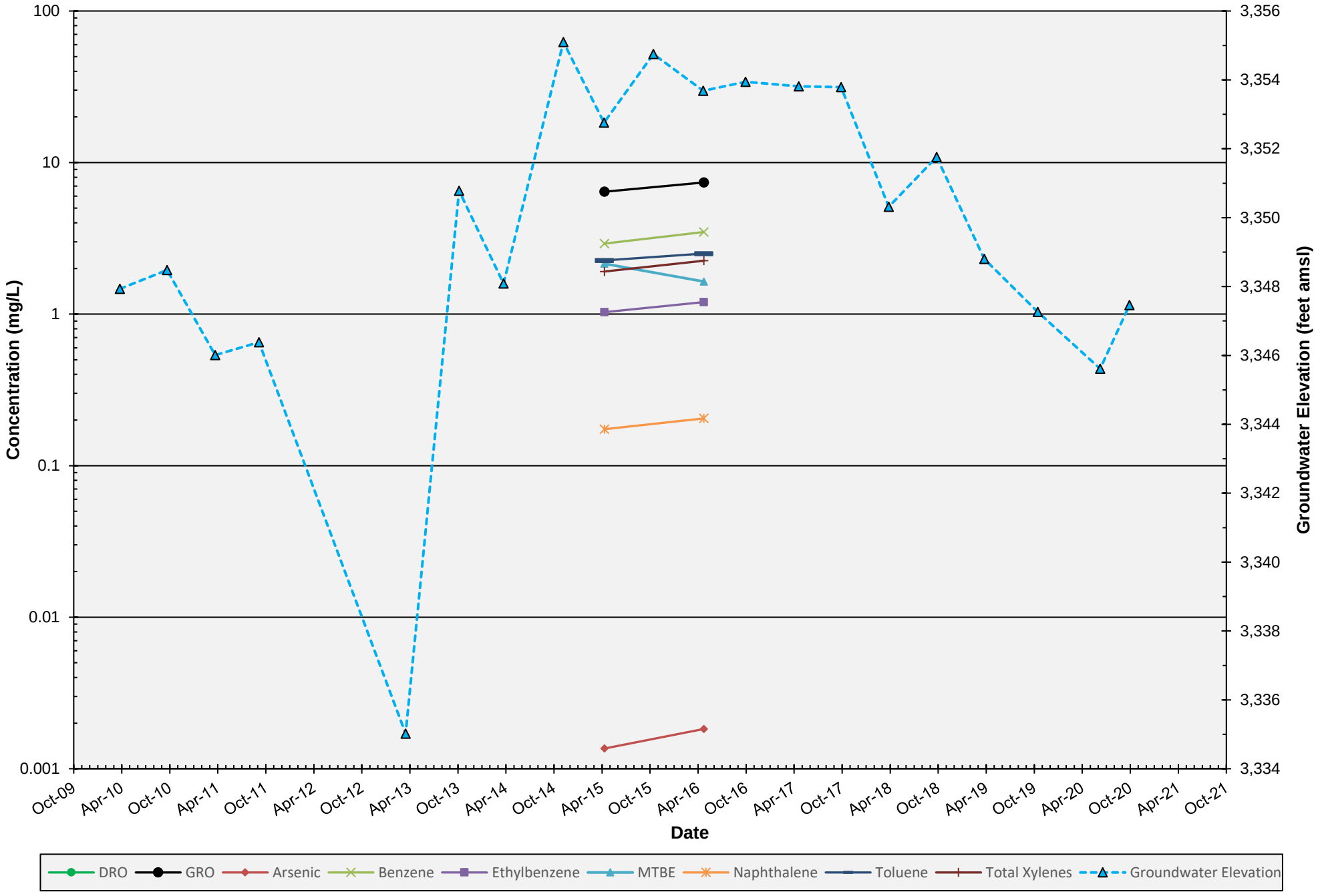
South Refinery Area



RW-5 and RW-5R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

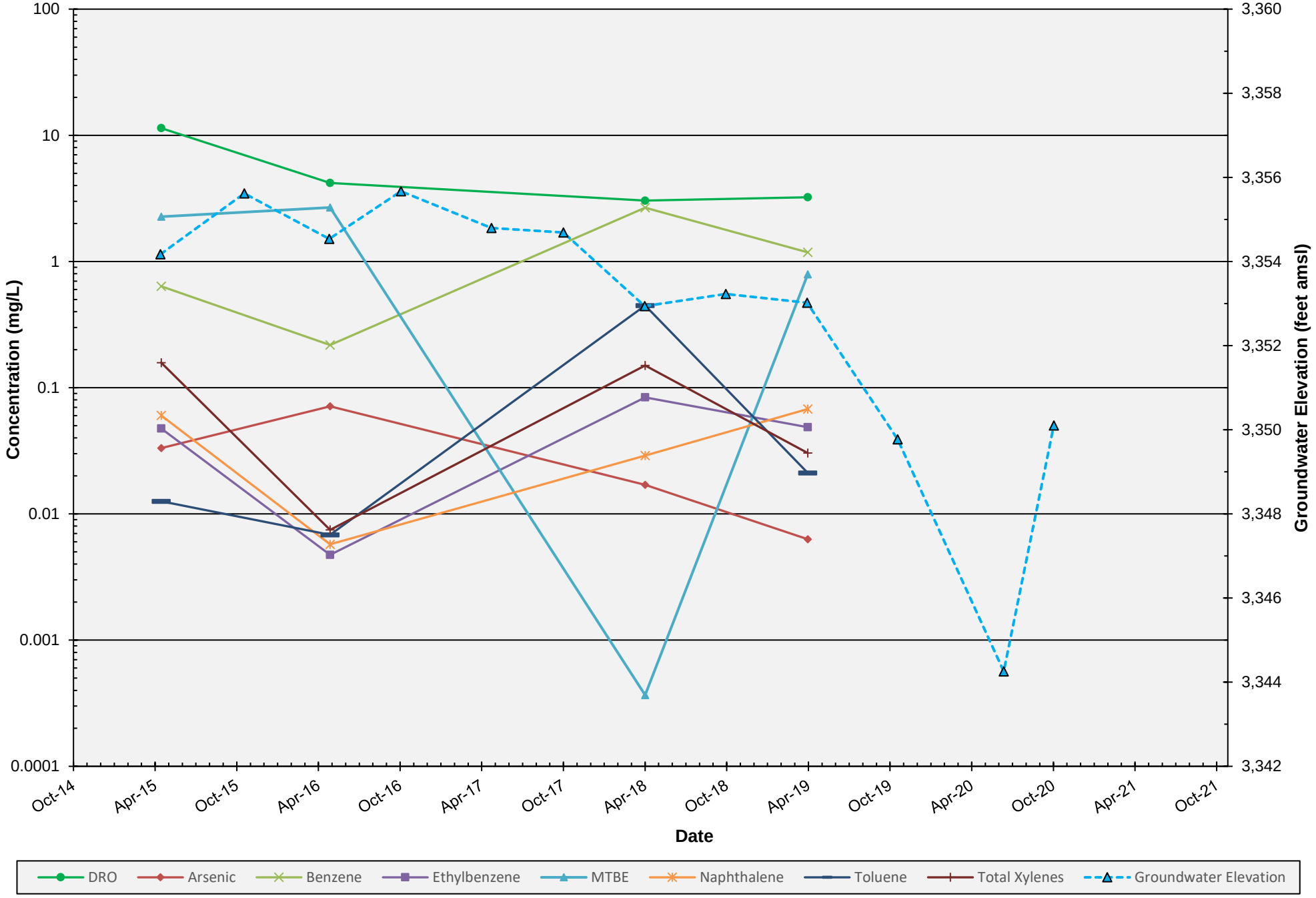
South Refinery Area



RW-6: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

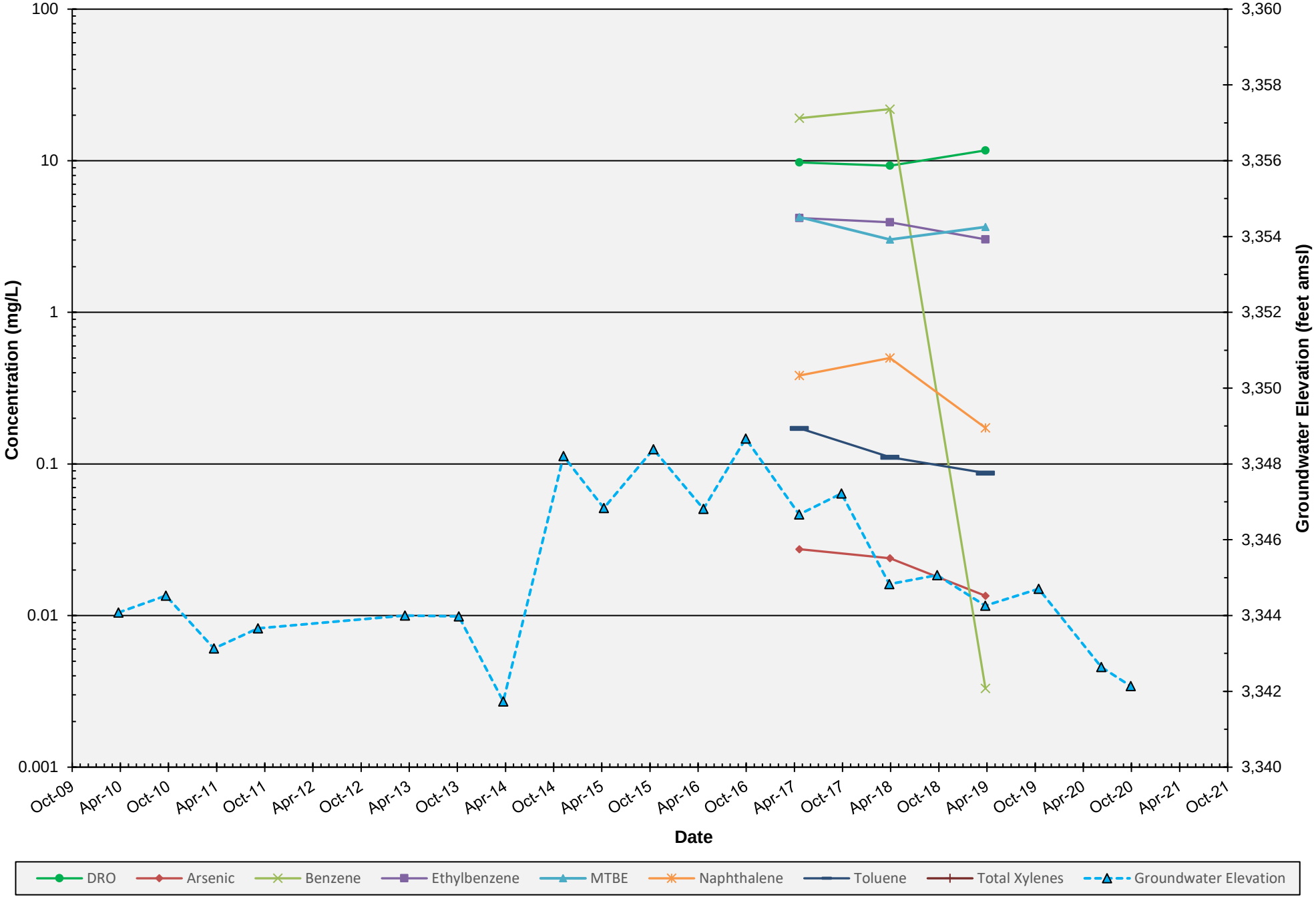
South Refinery Area



RW-15C: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

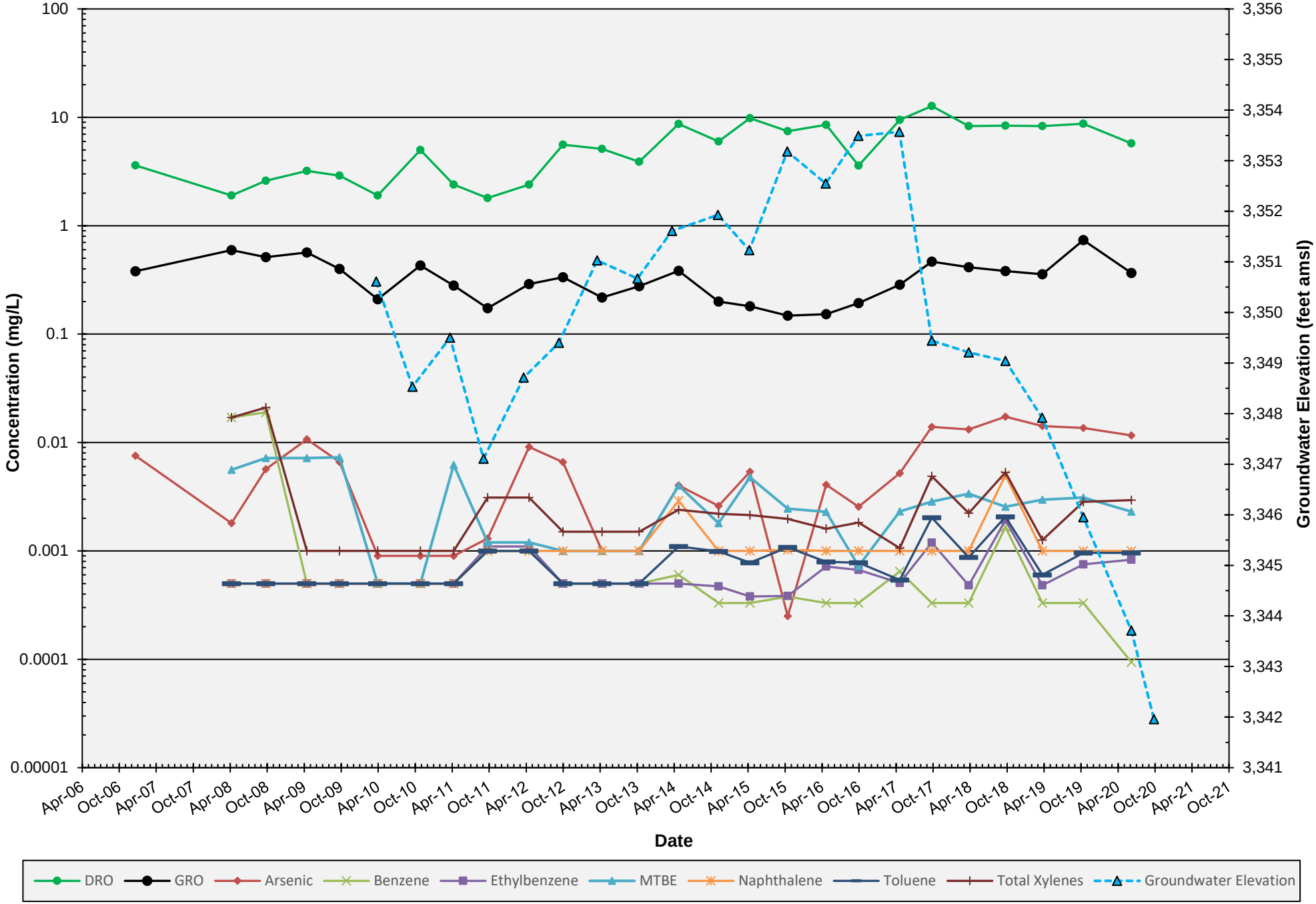
South Refinery Area



TEL-1: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

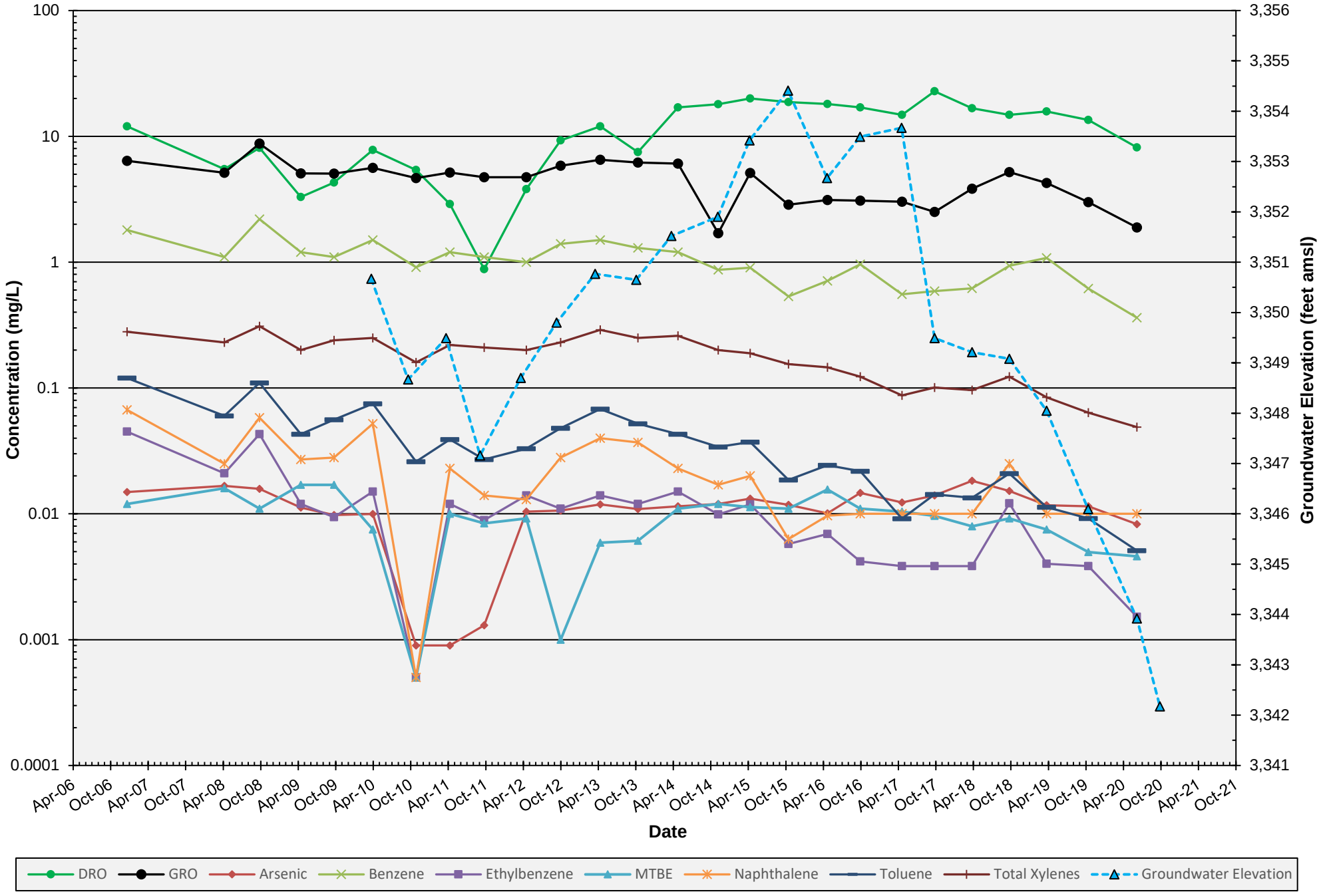
Tetra Ethyl Lead Impoundment



TEL-2: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

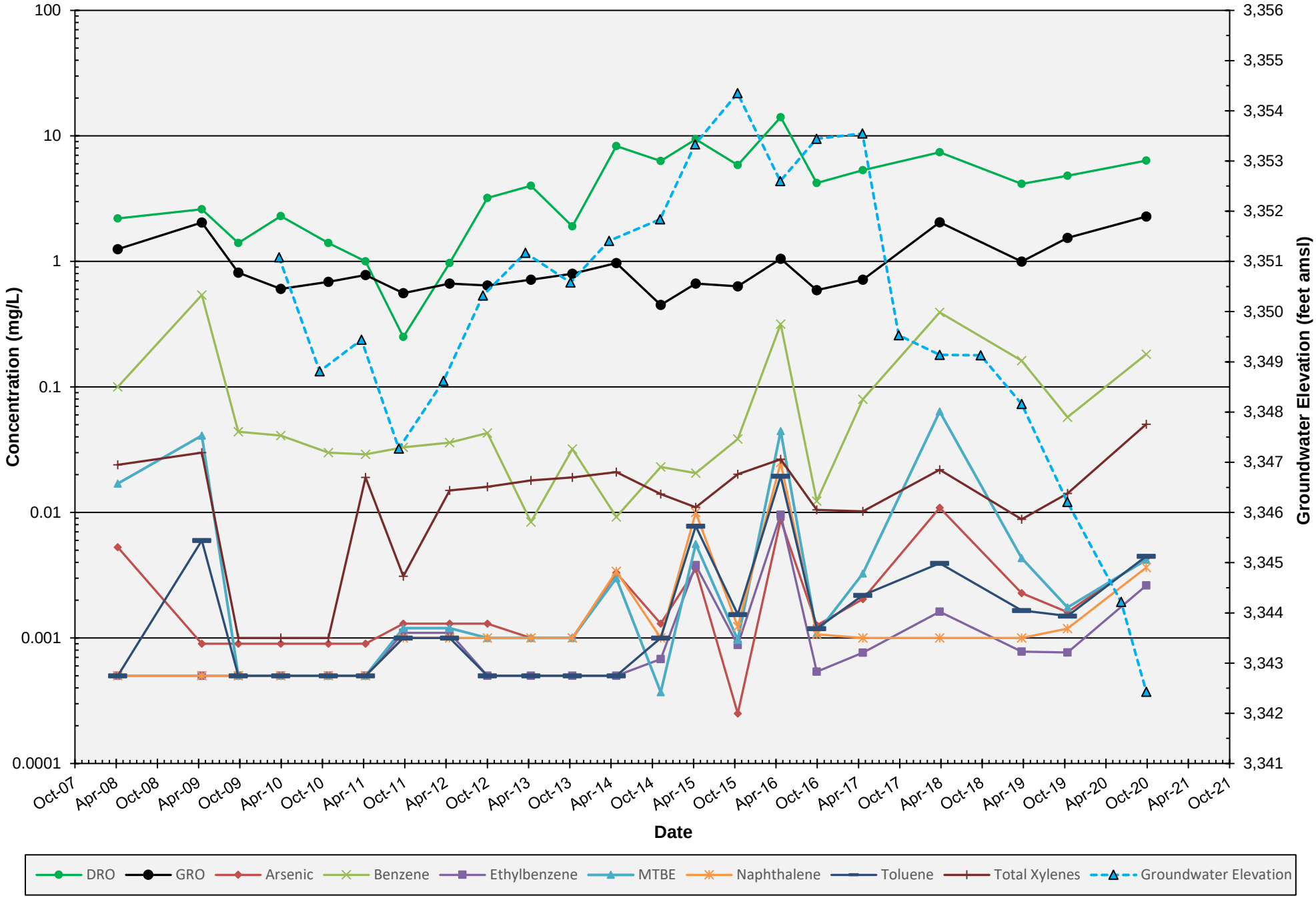
Tetra Ethyl Lead Impoundment



TEL-3: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

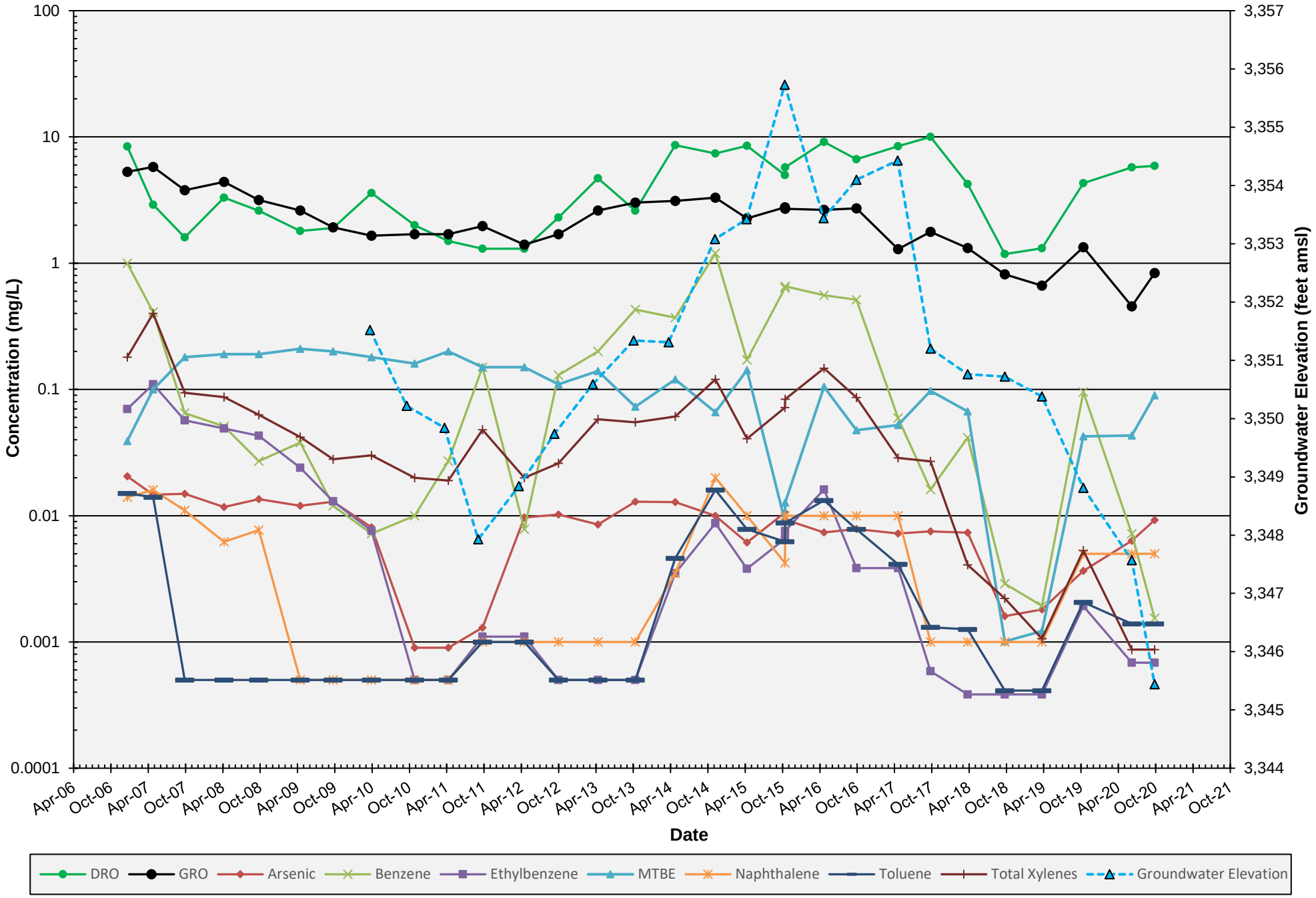
Tetra Ethyl Lead Impoundment



TEL-4: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

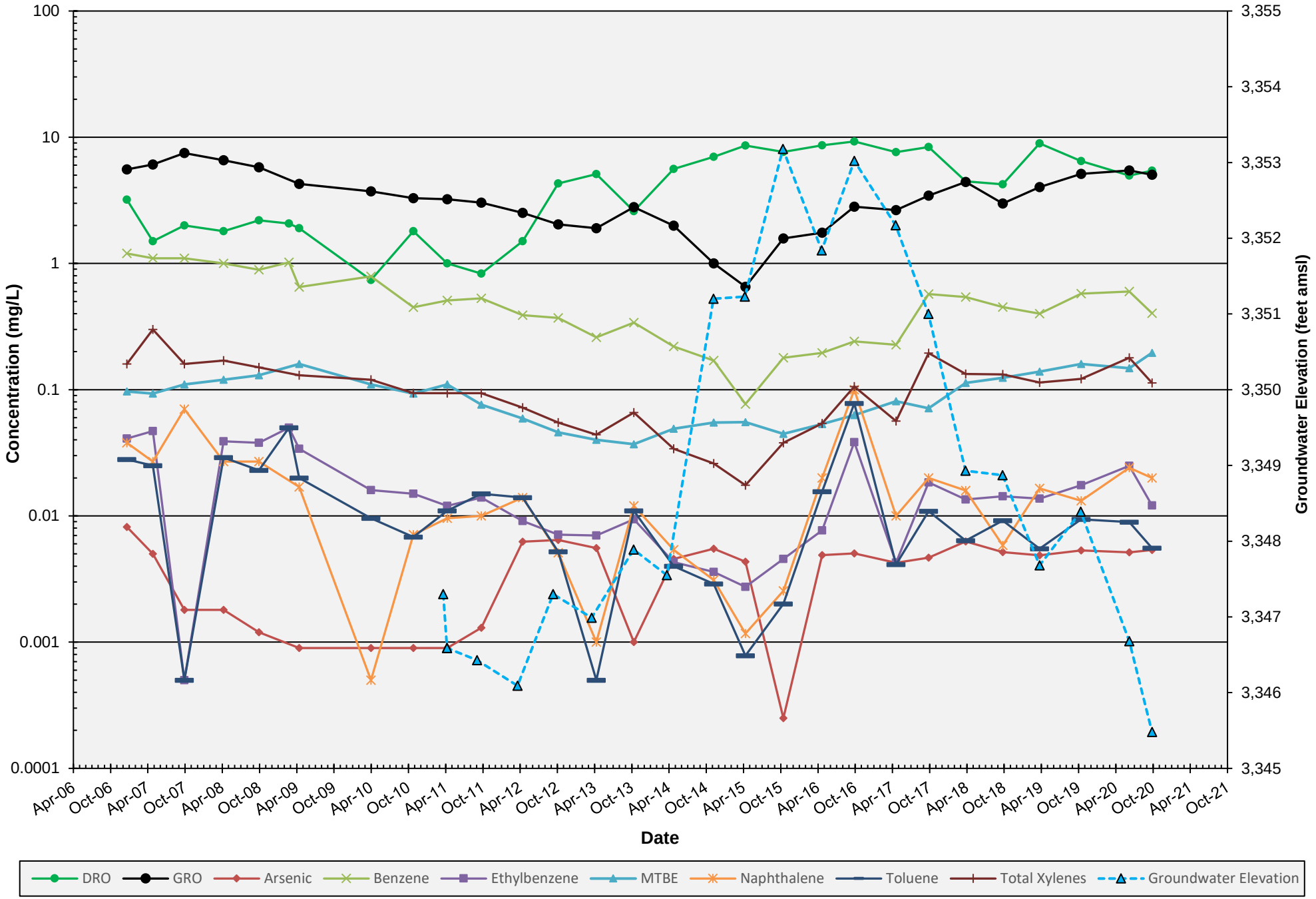
Tetra Ethyl Lead Impoundment



MW-49: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

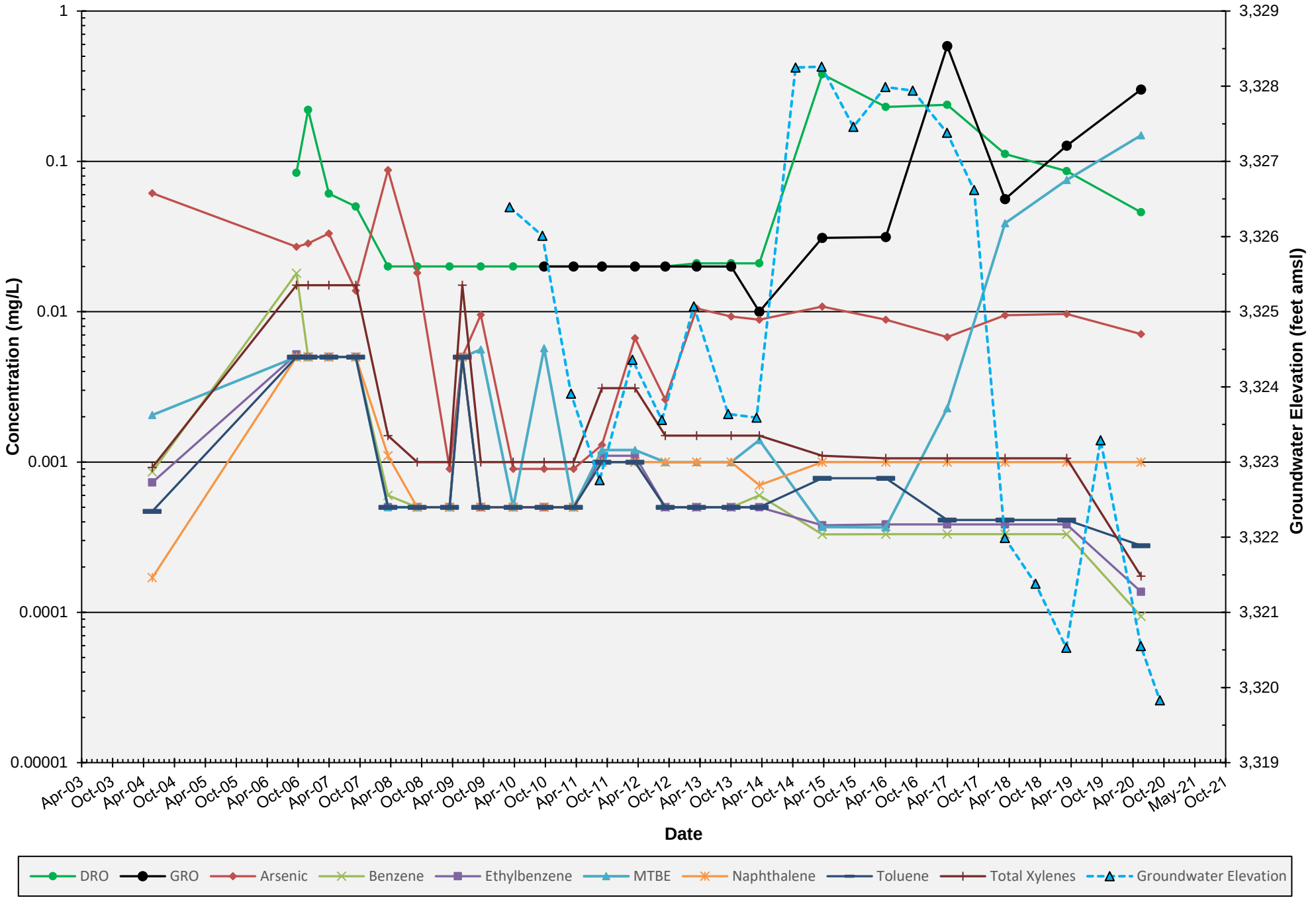
Tetra Ethyl Lead Impoundment



MW-8: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

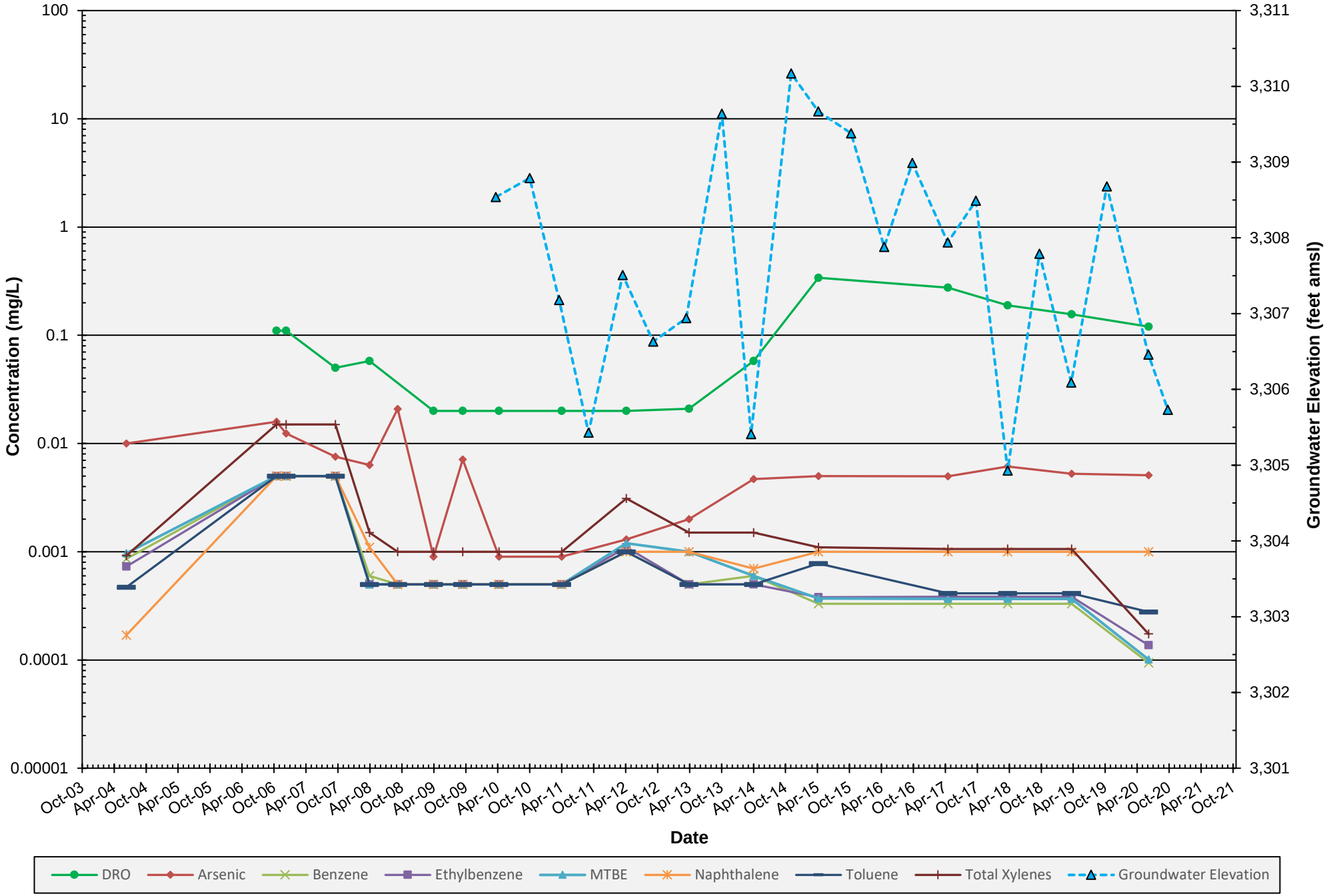
Three Mile Ditch



MW-16: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

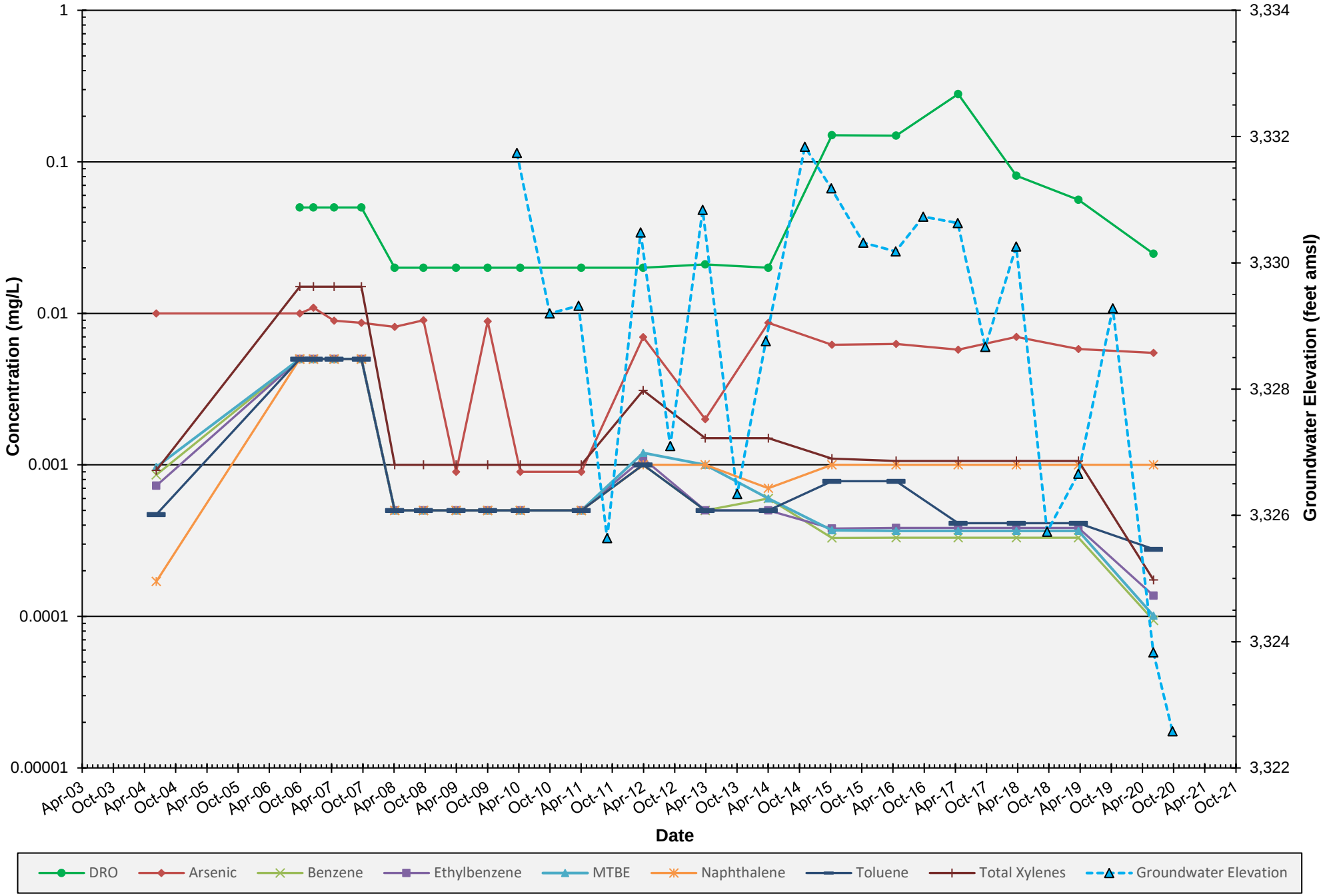
Three Mile Ditch



MW-20: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

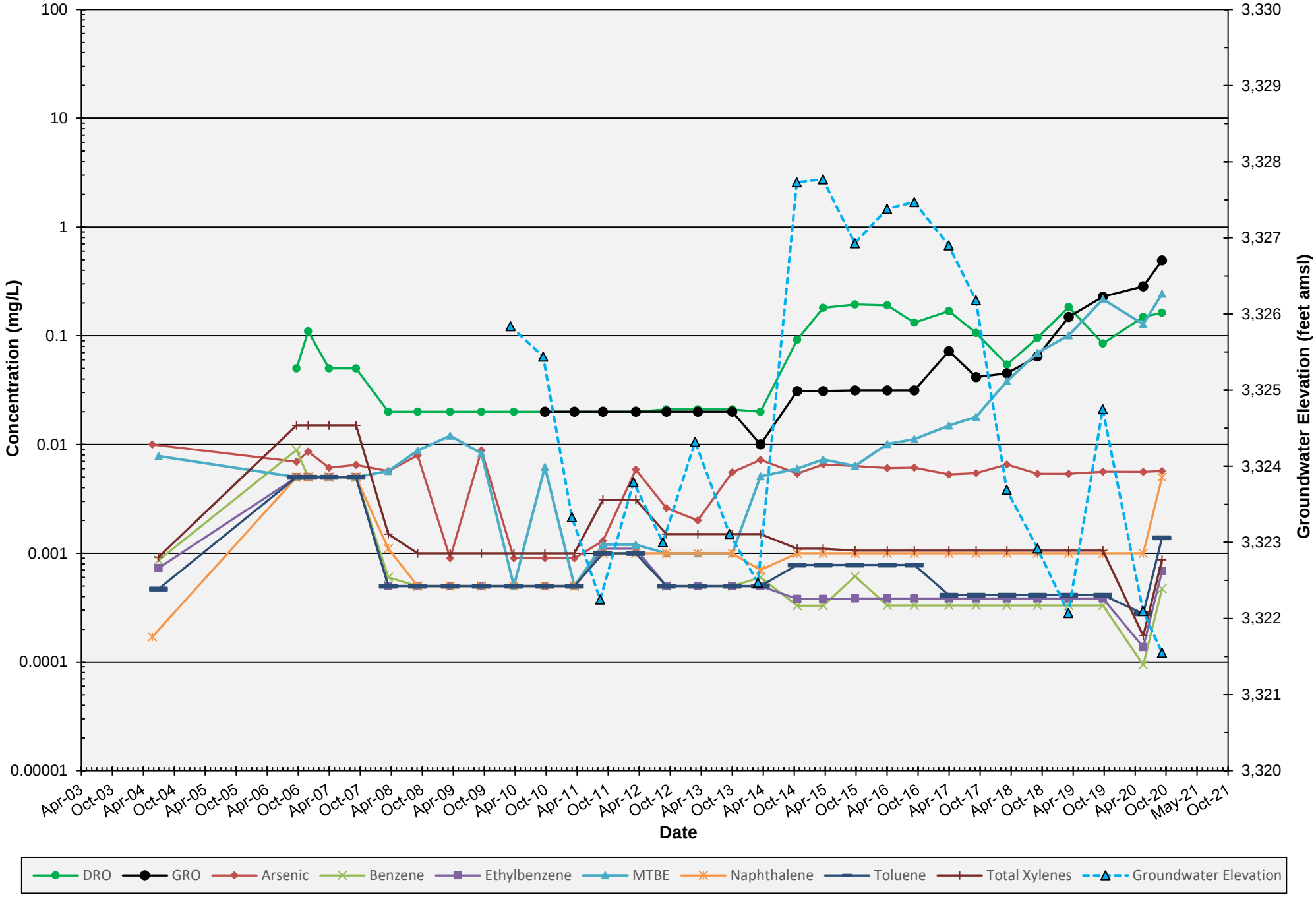
Three Mile Ditch



MW-21: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

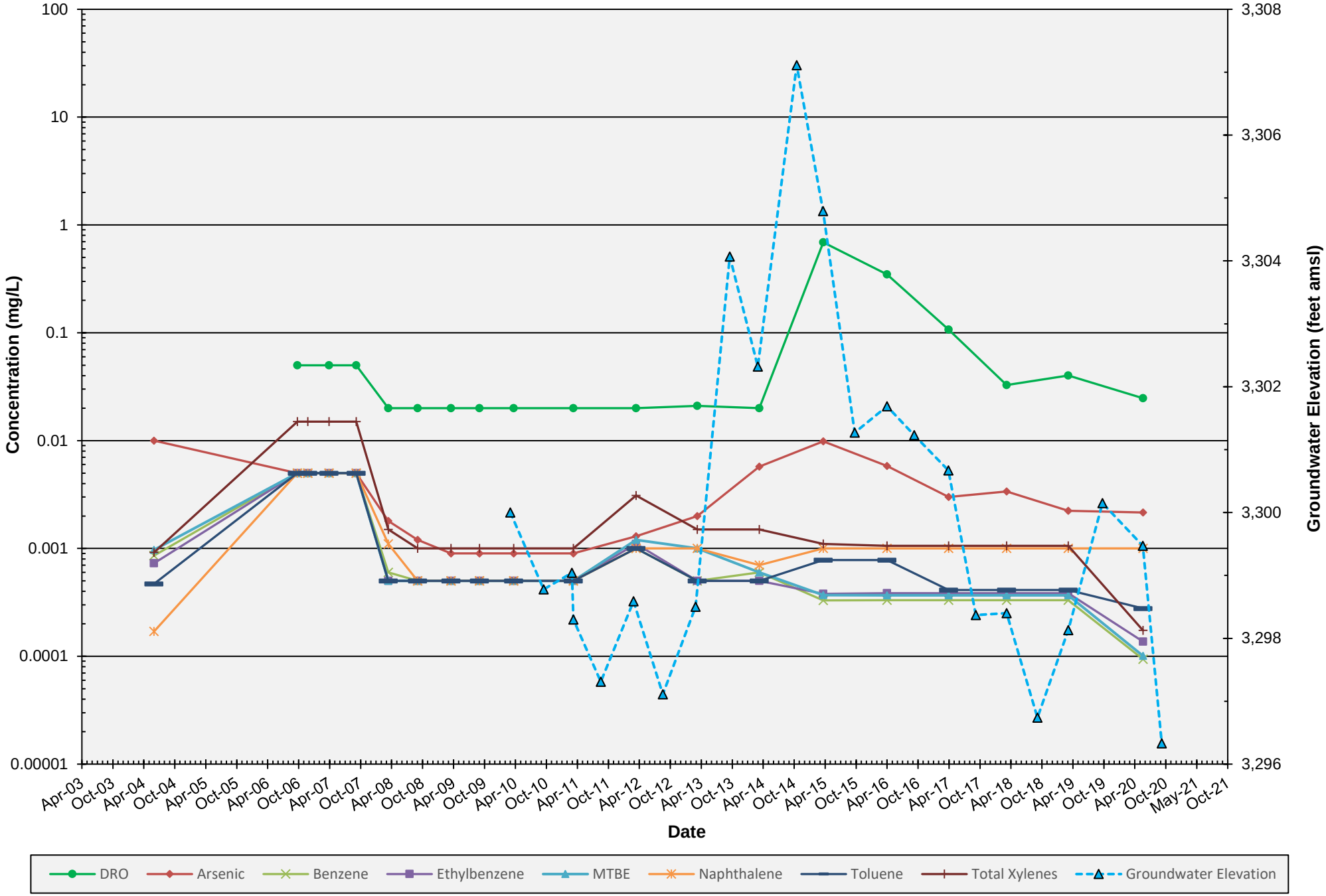
Three Mile Ditch



MW-25: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

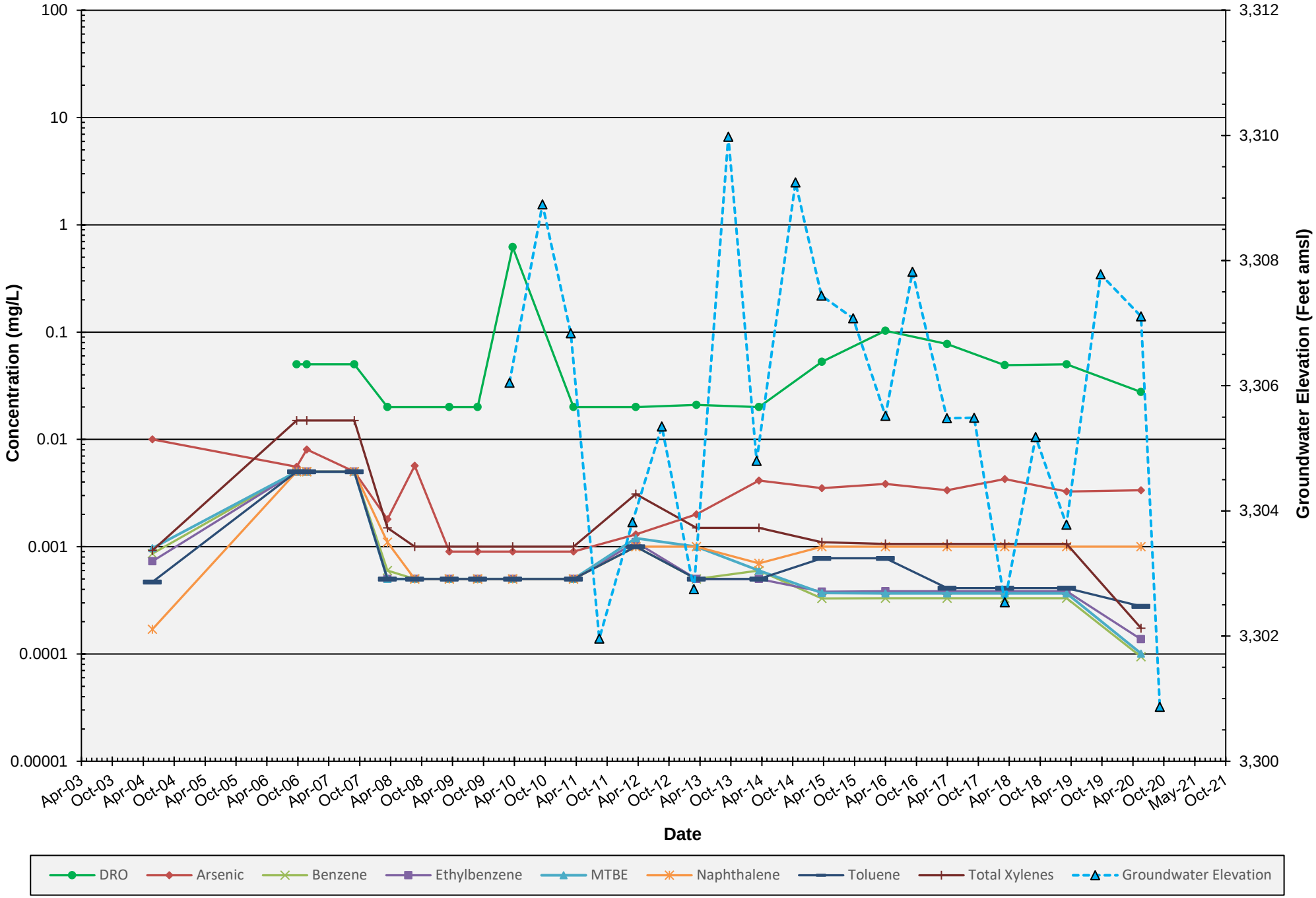
Three Mile Ditch



MW-26: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

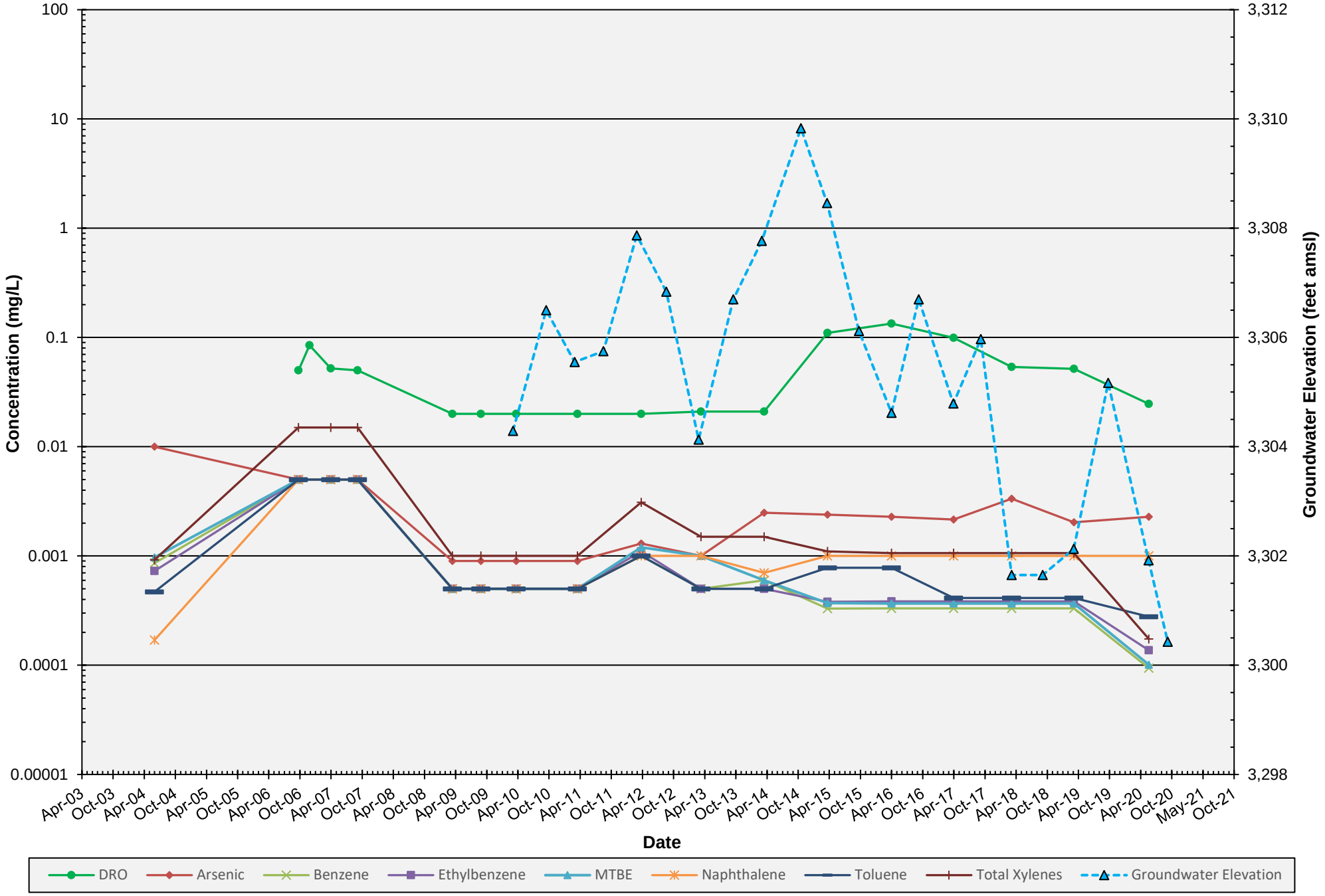
Three Mile Ditch



MW-27: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

Three Mile Ditch

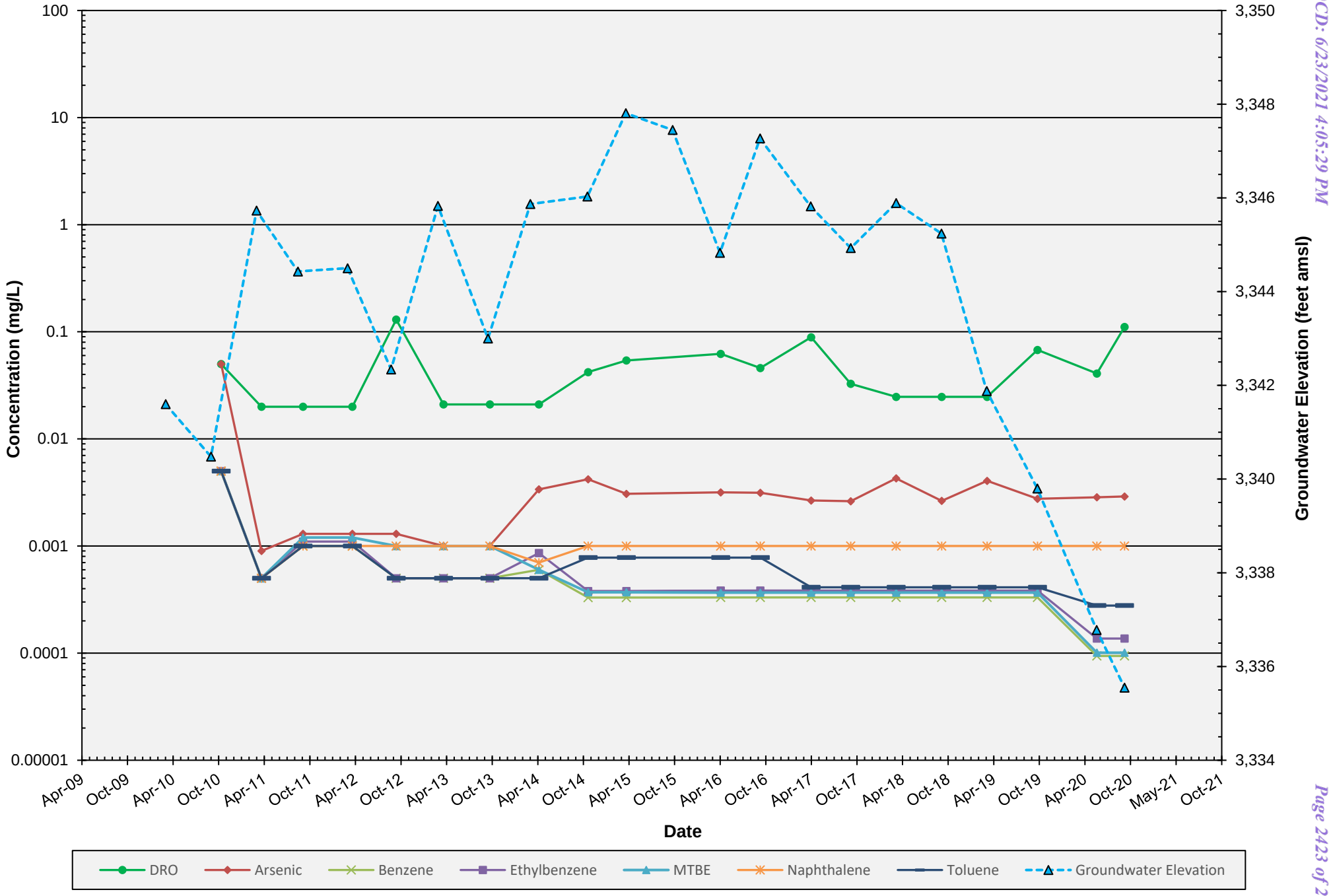


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MW-46 & MW-46R: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

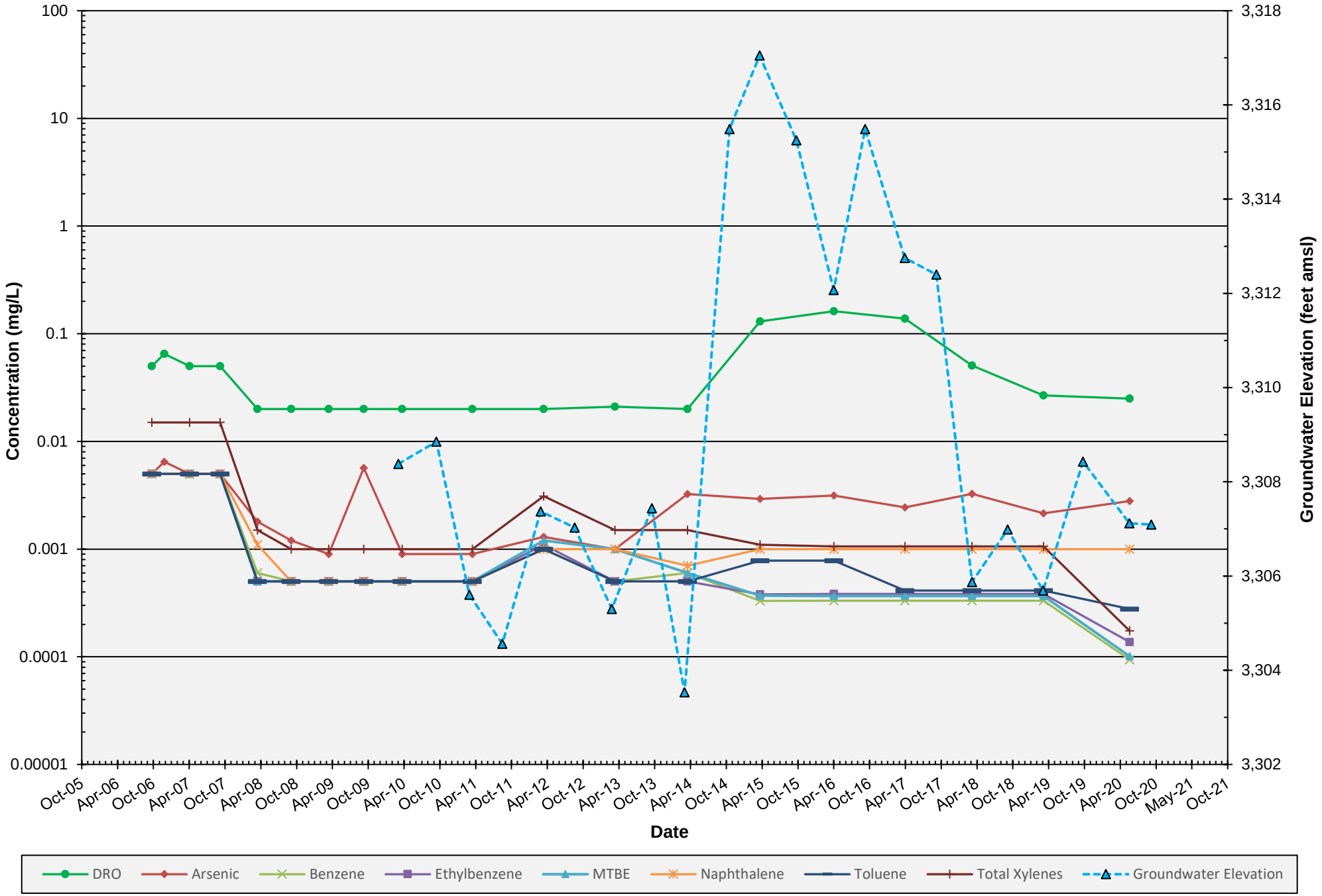
Three Mile Ditch



MW-68: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

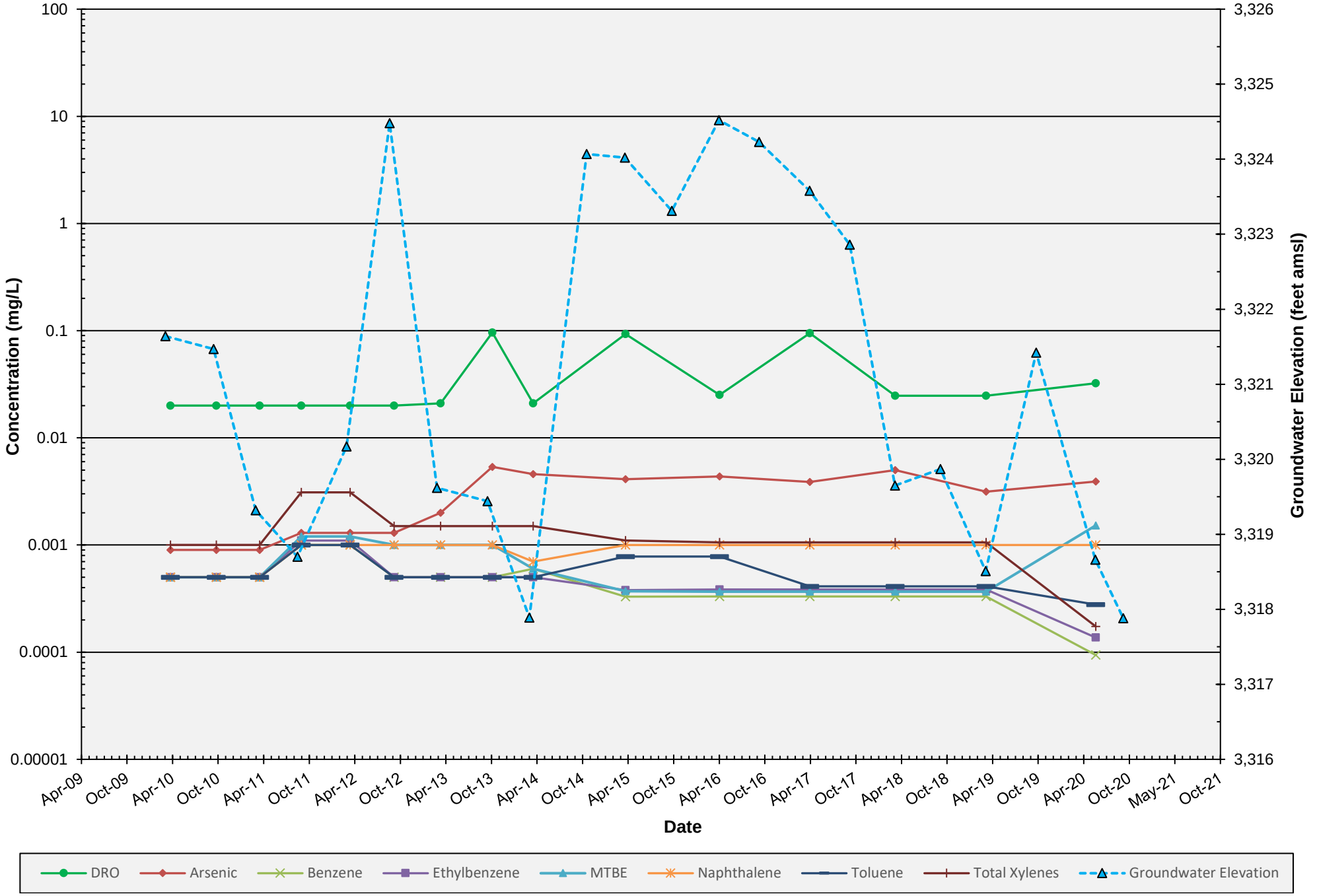
Three Mile Ditch



MW-71: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

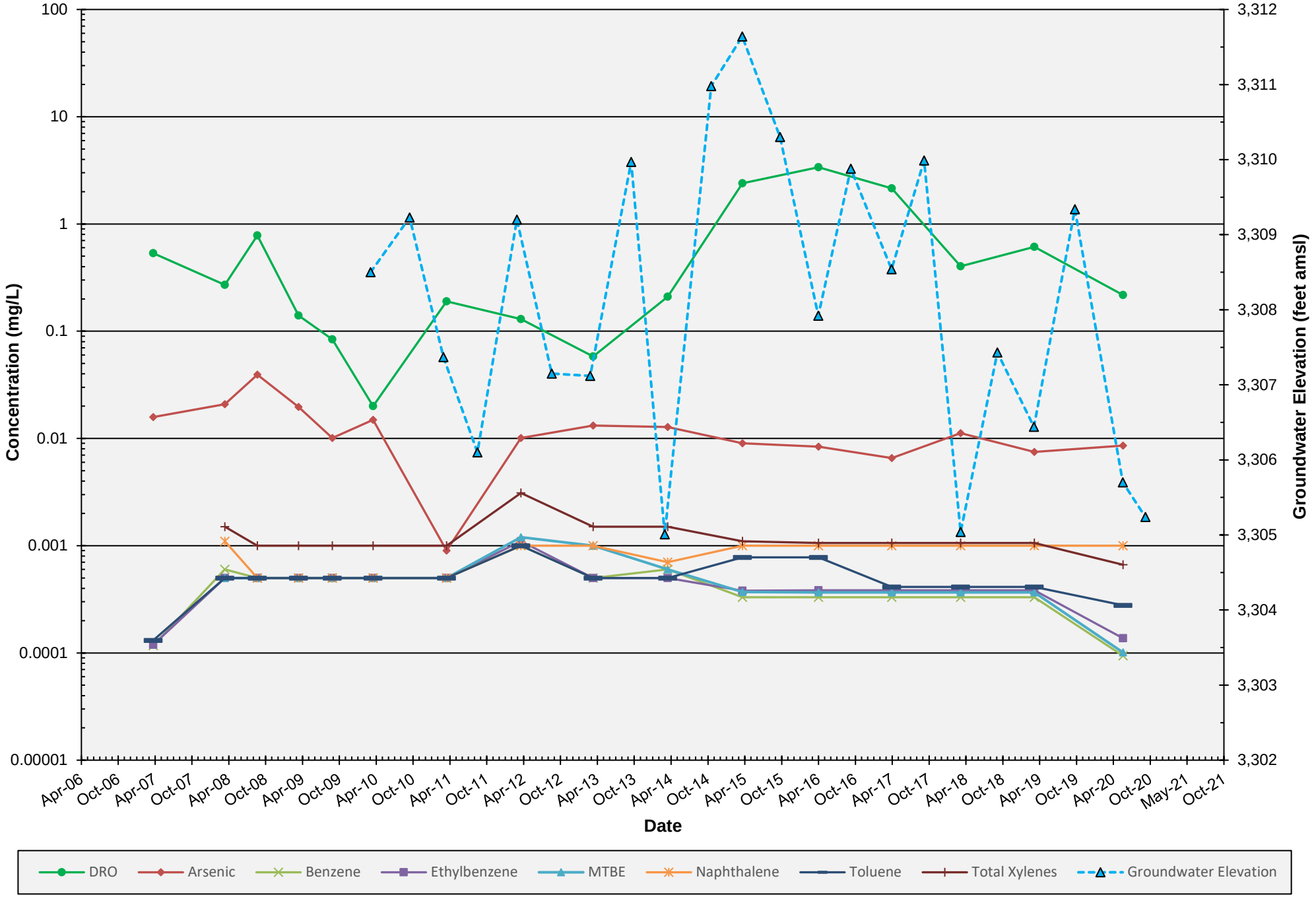
Three Mile Ditch



MW-89: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

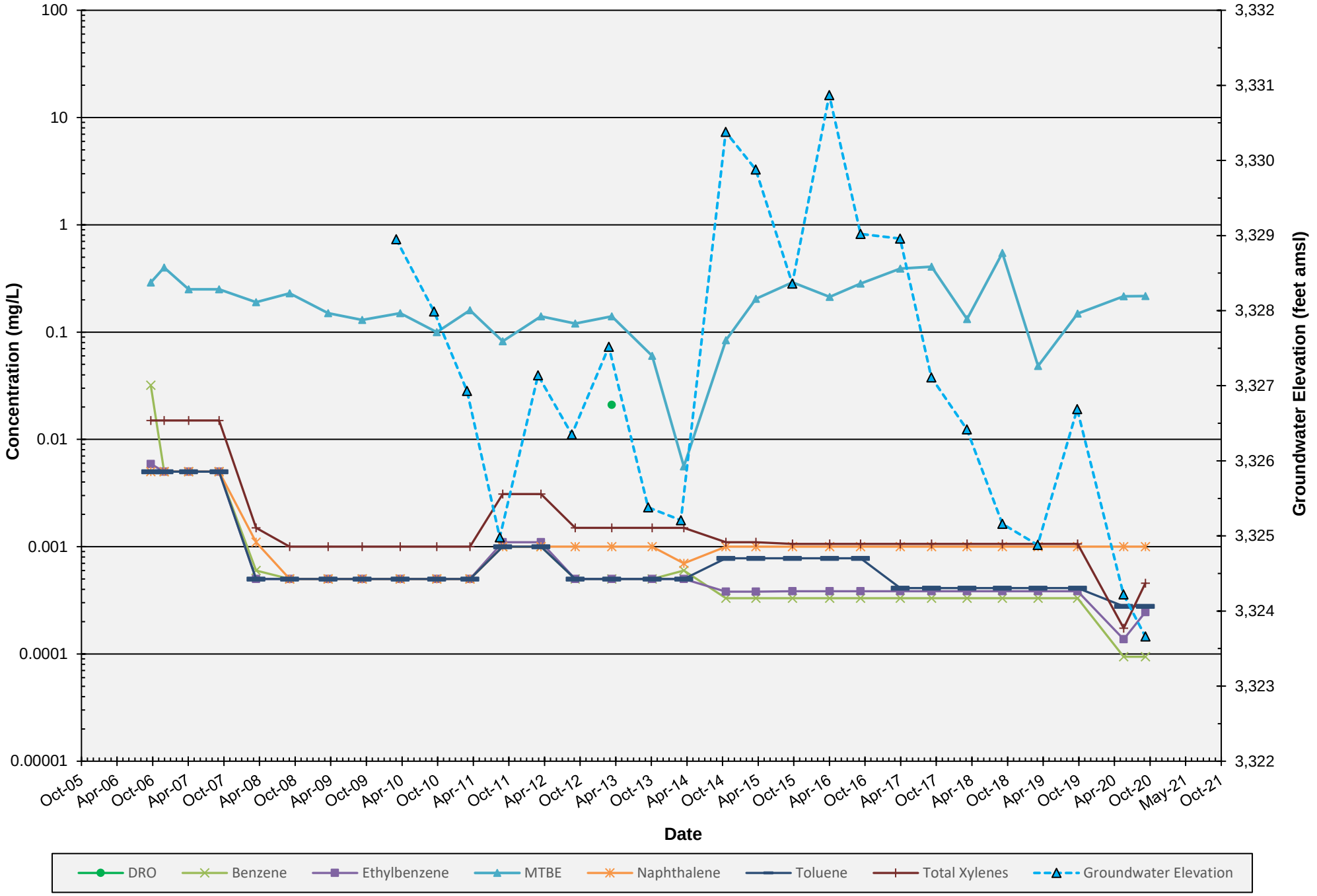
Three Mile Ditch



NP-1: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

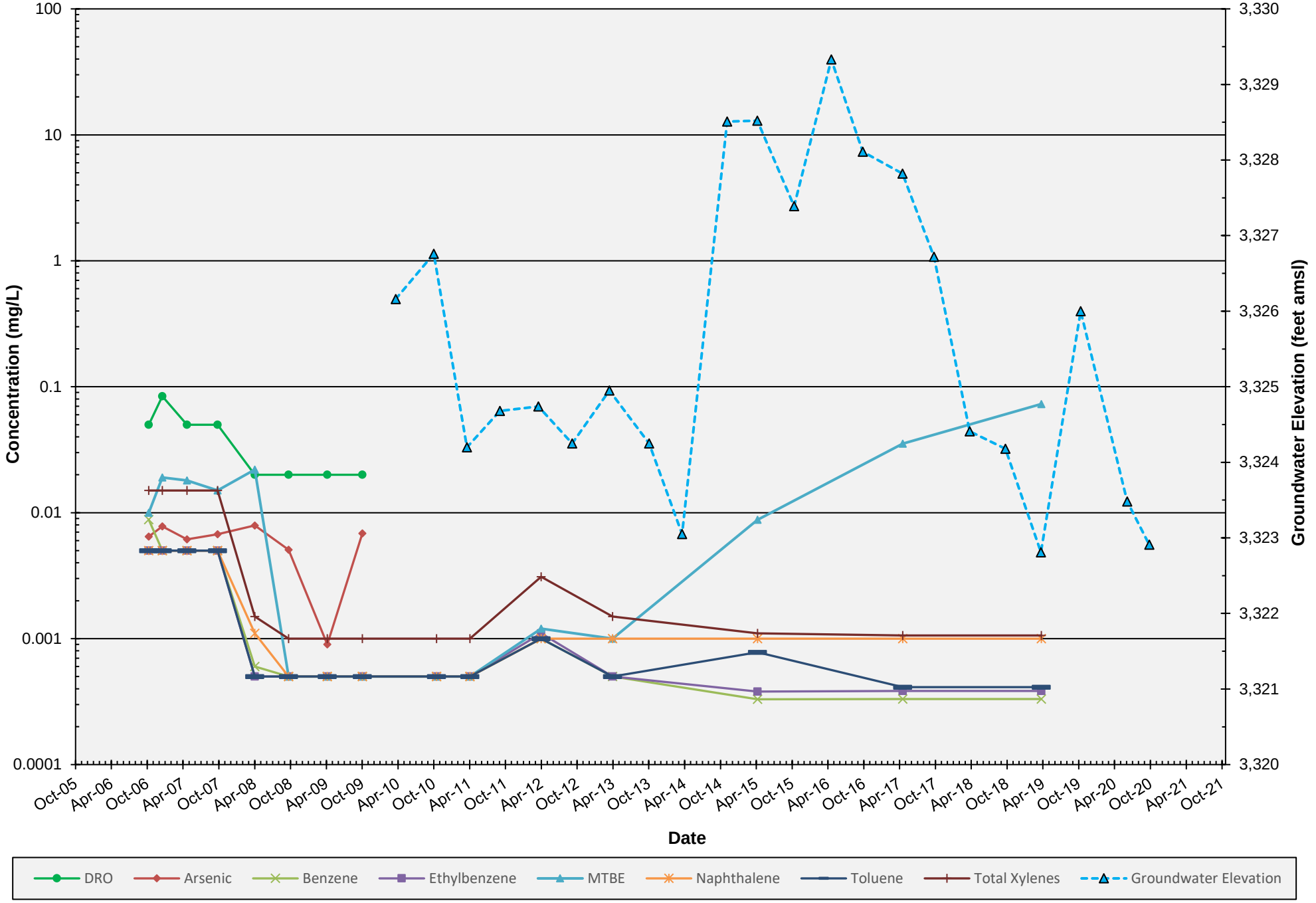
Three Mile Ditch



NP-6: COC Concentrations and Groundwater Elevations

HollyFrontier Navajo Refining LLC - Artesia Refinery

Three Mile Ditch



Appendix E

Appendix D: Data Validation

Data reported by Pace Analytical in Mount Juliet, Tennessee, for the groundwater samples collected in June 2020, and October and November 2020 were reviewed to ensure that reported analytical results met the data quality requirements contained in the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, January 2017), *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, January 2017), and the individual methods, as applicable. Quality control (QC) data indicate that measurement data are sufficient to meet method quality objectives, reported data are defensible, and QC mechanisms were generally effective in ensuring measurement data reliability within the expected limits of sampling and analytical error.

The following significant issue was identified. Due to a significant holding time exceedance (>2x the holding time), the nondetect results for benzene in samples RA-4798 and RA-4196 collected on 10/6/20 are not useable for project objectives. Due to this issue, these samples were re-collected on 11/6/20. The results for benzene in samples RA-4798 and RA-4196 collected on 11/6/20 should be used for project objectives.

The following sections discuss the QC issues identified during the data review for each of the data reports listed below.

June 2020 Data Packages	October 2020 Data Packages
L1230655	L1271283
L1230678	L1271284
L1230681	L1271297
L1230685	L1271298
L1231128	L1271301
L1231153	L1283074*
L1231155	
L1231207	*November 2020

Analytes that were detected in the both the associated blank and sample were evaluated as follows: Corresponding samples at concentrations within five times the maximum blank concentration for inorganic analytes and within 10 times the maximum blank concentrations for organic analytes may include measurement contributions from the laboratory (for method blanks) and/or field (for equipment and trip blanks).

The following criteria were used in evaluation of the field duplicates: When both results are ≥ five times the reporting limit (RL), relative percent differences (RPDs) must be <30%. When one or both results are < five times the RL, the absolute difference must be < the RL.

The following criteria were used in evaluation of laboratory duplicates: When both results are ≥ five times the RL, RPDs must be <20%.

Lab Report L1230655

Sample identifiers cross-referenced to laboratory identifications are presented below.

Sample ID	Lab ID
L1230655-01	MW-56
L1230655-02	MW-55
L1230655-03	MW-54A
L1230655-04	NCL-49
L1230655-05	DUP-NCL-01*
L1230655-06	TRIP BLANK-NCL-01

*Field duplicate of NCL-49

Data Review Checklist	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?	X		
Any detection in method blanks?		X	
Any detection in equipment blanks?			X
Any detection in trip blanks?		X	
Any LCS or LCS duplicates (LCSD) percent recoveries (%R) out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any matrix spike (MS) or MS duplicate (MSD) %R outside of laboratory defined limits?		X	
Any MS/MSD RPD above laboratory defined limits?			X
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids were 2.5-5 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentrations of dissolved solids. There is no impact on data usability since dissolved solids results were detected above the RLs in the affected samples.

Select samples were analyzed at dilutions for nitrate-nitrite, chloride, sulfate, and/or select VOCs but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted due to the presence of these target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability since these analytes were detected above the RLs in the diluted samples.

MS/MSDs

An MS analysis was performed on sample MW-55 for nitrate-nitrite. All criteria were met.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-54A: Nitrate-nitrite
- MW-55: Cyanide

All criteria were met.

Field Duplicates

The variability for total manganese in field duplicate pair, NCL-49/DUP-NCL-01, did not meet the acceptance limits as the absolute difference was greater than the RL. Therefore, the positive results for total manganese in samples NCL-49 and DUP-NCL-01 may be considered estimated.

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Lab Report L1230678

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1230678-01	TEL-4
L1230678-02	TEL-2
L1230678-03	TEL-1
L1230678-04	MW-49
L1230678-05	DUP-TEL-01*
L1230678-06	EB-TEL-01
L1230678-07	TRIP BLANK-TEL-01

*Field duplicate of TEL-4

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?	X		
Any detection in method blanks?		X	
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blank were five times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentrations of dissolved solids. There is no impact on data usability since dissolved solids results were detected above the RLs in the affected samples.

The laboratory noted that the cyanide analysis of sample MW-49 was diluted 50-fold due to sulfide interference. Therefore, the RL for cyanide in this sample was elevated accordingly.

The laboratory noted that the VOC analysis of sample TEL-4 was diluted 5-fold due to foaming at the time of analysis. Therefore, the RLs for VOCs in this sample were elevated accordingly.

The laboratory noted that the TPH (GC/FID) low fraction analyses of samples TEL-1 and DUP-TEL-01 were diluted 10-fold due to foaming at the time of analysis. Therefore, the RLs for TPH (GC/FID) low fraction in these samples were elevated accordingly.

Several samples were analyzed at dilutions for nitrate-nitrite, chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, and/or VOCs but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, and select VOCs since these analytes were detected above the RLs in the diluted samples. The RLs for nitrate-nitrite and/or select VOCs in several samples were elevated accordingly.

Standard Conditions

The laboratory noted that sample TEL-1 did not have a collection date or time listed on the chain-of-custody. The laboratory logged this sample in according to the date and time on the sample containers.

Equipment Blanks

The following analytes were detected in the equipment blank sample, EB-TEL-01: TPH (GC/FID) high fraction, acetone, benzene, 2-butanone, and trichloroethene. The analyte listed below was detected in the corresponding samples at concentrations within 10 times the equipment blank concentrations for organic analytes. Therefore, these samples may include measurement contributions from the field.

- TPH (GC/FID) high fraction: TEL-2, TEL-1

MS/MSDs

MS/MSD analyses were performed on the following samples:

- DUP-TEL-01: Dissolved metals
- TEL-4: Total metals, TPH (GC/FID) low fraction

The %R of dissolved manganese in the MS performed on sample DUP-TEL-01 was outside of the laboratory-defined recovery limits (75-125%). However, the concentration of this analyte in the unspiked sample was greater than four times the spiked concentration; thus, the %R of dissolved manganese was not used to evaluate potential matrix effects.

The %Rs of total calcium in the MS/MSD, total manganese in the MSD, and total sodium in the MS performed on sample TEL-4 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the %Rs of total calcium, manganese, and sodium were not used to evaluate potential matrix effects.

The %Rs of total nickel in the MS and MSD performed on sample TEL-4 were outside of the laboratory-defined recovery limits (75-125%); although nickel was not reported in the parent sample, these results indicate a potential low bias for nickel in the other project samples from the

same batch, where reported. Therefore, the positive result for total nickel in sample MW-49 may be biased low.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- DUP-TEL-01: dissolved solids, Nitrate-Nitrite
- EB-TEL-01: Chloride, fluoride, sulfate

All criteria were met.

Field Duplicates

Samples TEL-4/ DUP-TEL-01 were submitted as the field duplicate pair. The variability for TPH (GC/FID) low fraction did not meet the acceptance limits as the absolute difference was greater than the RL. Therefore, the positive results for TPH (GC/FID) low fraction in samples TEL-4 and DUP-TEL-01 may be considered estimated.

Lab Report L1230681

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1230681-01	MW-6A
L1230681-02	MW-120
L1230681-03	MW-121
L1230681-04	MW-74
L1230681-05	MW-73
L1230681-06	MW-72
L1230681-07	OCD-6
L1230681-08	OCD-7AR
L1230681-09	MW-88
L1230681-10	MW-4A
L1230681-11	MW-5A
L1230681-12	MW-7A
L1230681-13	OCD-8A
L1230681-14	MW-87
L1230681-15	MW-18A
L1230681-16	MW-70
L1230681-17	MW-124
L1230681-18	DUP-EP-01*
L1230681-19	EB-EP-01
L1230681-20	EB-EP-02
L1230681-21	EB-EP-03
L1230681-22	TRIP BLANK-EP-02
L1230681-23	TRIP BLANK-EP-04

*Field duplicate of MW-7A

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?		X	
Any detection in method blanks?		X	
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?	X		
Any field duplicate data additionally flagged as estimated?		X	
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blanks were 5-20 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentrations of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the VOC analyses of samples MW-6A and MW-120 were diluted 5-fold due to foaming at the time of analysis. Therefore, the RLs for VOCs in these samples were elevated accordingly.

Several samples were analyzed at dilutions for nitrate-nitrite, select total metals, chloride, fluoride, sulfate, and/or TPH (GC/FID) high fraction but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for nitrate/nitrite, chloride, fluoride, sulfate, TPH (GC/FID) high fraction, and select metals since these analytes were detected above the RLs in the diluted samples. The RLs for select metals in several samples were elevated accordingly.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since the samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Equipment Blanks

The following analytes were detected in the equipment blank samples, EB-EP-01, EB-EP-02, and/or EB-EP-03: total sodium, chloroform, and TPH (GC/FID) low fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum equipment blank concentration for inorganic analytes and within 10 times the equipment blank concentrations for organic analytes. Therefore, these samples may include measurement contributions from the field.

- TPH (GC/FID) low fraction: MW-4A, MW-6A, MW-7A, MW-72, MW-73, MW-88, MW-120, OCD-6, OCD-8A, DUP-EP-01

MS/MSD

MS and/or MS/MSD analyses were performed on the following samples:

- OCD-7AR, MW-87: Nitrate-nitrite
- MW-120, EB-EP-02, EB-EP-03: Chloride, fluoride, sulfate
- EB-EP-01: Dissolved metals
- MW-18A: Total metals

The %Rs of chloride and sulfate in the MS and MSD performed on sample MW-120 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of these

analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the %Rs of chloride and sulfate were not used to evaluate potential matrix effects.

The %Rs of total calcium, manganese, and sodium in the MS and MSD performed on sample MW-18A were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentration; thus, the %Rs of total calcium, manganese, and sodium were not used to evaluate potential matrix effects.

The %Rs of total barium (129%/130%), and total uranium (143%/145%) in the MS/MSD performed on sample MW-18A were above the laboratory-defined recovery limits (75-125%); therefore, the positive results for total barium in all samples may be biased high. There is no impact on data usability for total uranium due to this issue since all total uranium results were nondetect.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-6A, MW-18A, MW-70: Dissolved solids
- DUP-EP-01: Nitrate-nitrite
- MW-6A, EB-EP-01: Chloride, fluoride, sulfate

The RPD (26.4%) for dissolved solids in the duplicate analysis performed on sample MW-70 exceeded the acceptance criteria used in this evaluation (20%); Therefore, the positive result for dissolved solids in sample MW-70 may be considered estimated.

Field Duplicates

Samples MW-7A and DUP-EP-01 were submitted as the field duplicate pair. All criteria were met.

Lab Report L1230685

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1230685-01	KWB-7
L1230685-02	KWB-11A
L1230685-03	KWB-11B
L1230685-04	MW-115
L1230685-05	MW-114
L1230685-06	MW-117
L1230685-07	MW-118
L1230685-08	MW-119
L1230685-09	MW-126A
L1230685-10	MW-126B
L1230685-11	MW-131
L1230685-12	MW-57
L1230685-13	KWB-12A
L1230685-14	KWB-12B
L1230685-15	KWB-13
L1230685-16	MW-103
L1230685-17	MW-104
L1230685-18	MW-64
L1230685-19	MW-102
L1230685-20	MW-125
L1230685-22	UG-3R
L1230685-23	UG-4
L1230685-24	UG-1
L1230685-25	UG-2
L1230685-26	MW-101
L1230685-27	MW-39
L1230685-28	MW-98
L1230685-29	RW-10
L1230685-30	MW-40
L1230685-31	MW-41
L1230685-32	RW-9
L1230685-33	MW-29
L1230685-34	RW-#16B
L1230685-35	MW-106
L1230685-36	MW-139
L1230685-37	MW-50
L1230685-38	MW-91
L1230685-39	MW-90
L1230685-40	MW-96
L1230685-41	MW-95
L1230685-42	DUP-REST-02*

Lab ID	Sample ID
L1230685-43	DUP-REST-05**
L1230685-44	EB-REST-02
L1230685-45	EB-REST-05
L1230685-46	TRIP BLANK-REST-02
L1230685-47	TRIP BLANK-REST-04
L1230685-48	RW-#18A
L1230685-49	MW-116
L1230685-50	TRIP BLANK-REST-03

*Field duplicate of MW-104
**Field duplicate of KWB-12B

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?	X		
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blanks were 2-20 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the nitrate-nitrite analyses of the following samples were diluted due to sulfide interference. Therefore, the RLs for nitrate-nitrite in these samples were elevated accordingly.

- MW-40, MW-103, and DUP-REST-02 (10-fold);
- MW-104 (5-fold);
- MW-64 (2-fold)
- MW-98 (100-fold);
- RW-9, MW-90, and MW-96 (50-fold); and

- MW-91, MW-106 (200-fold).

Several samples were analyzed at dilutions for nitrate-nitrite, sodium, chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, SVOCs, and/or VOCs but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for nitrate/nitrite, chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, select VOCs, select SVOCs, and sodium since these analytes were detected above the RLs in the diluted samples. The RLs for select VOCs and/or SVOCs in several samples were elevated accordingly.

The laboratory indicated that a constant weight could not be achieved due to matrix interference in the dissolved solids analyses of samples RW-#18A and MW-116. Therefore, the positive results for dissolved solids in these samples may be considered estimated.

The laboratory reported SVOCs for sample MW-95; this analysis was not requested on the chain-of-custody.

Standard Conditions

The laboratory noted that samples KWB-7, KWB-11A, and KWB-11B did not have a collection date or time listed on the chain-of-custody. The laboratory logged these samples in according to the dates and times on the sample containers.

Samples MW-116, RW-#18A, and TRIP BLANK-REST-03 were misplaced during shipment to the laboratory and were not received by the laboratory. These samples were re-collected but the new sampling dates and times were not recorded by the field sampler. The original collection dates and times listed on the chain-of-custody were logged in by the laboratory.

Holding Times

All samples submitted for dissolved solids analysis with the exception of sample MW-50 were prepared slightly outside of the 7-day holding time. However, since all samples except MW-50 were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability. Sample MW-50 was prepared four days outside of the 7-day holding time for dissolved solids. Therefore, the result for dissolved solids in sample MW-50 may be considered estimated.

Laboratory Method Blanks

The following analytes were detected in the method blanks: total arsenic, total nickel, naphthalene (SVOC), and TPH (GC/FID) low fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the method blank concentration for inorganic analytes and within 10 times the method blank concentration for organic analytes. Therefore, these samples may include measurement contributions from the laboratory.

- Total arsenic: MW-90, MW-95, MW-96, DUP-REST-02, and DUP-REST-05
- Total nickel: EB-REST-05

- TPH (GC/FID) low fraction: MW-29, MW-41, MW-95, MW-106, DUP-REST-05, and EB-REST-02
- Naphthalene (SVOC): MW-95

Dissolved solids was detected at an unusually high concentration in the method blank in QC batch WG1496357 associated with samples UG-1, UG-2, and UG-4. After communication with the laboratory during this review, the laboratory indicated that most likely due to laboratory error, the method blank was inadvertently spiked as if it were an LCS. The laboratory re-prepared these samples out of the 7-day holding time which resulted in lower but comparable results. The results that were prepared within holding time for dissolved solids were reported with a sample narrative indicating the confirmatory results from the re-preparation. There is likely no adverse impact on data usability due to this method blank issue.

Equipment Blanks

The following analytes were detected in the equipment blank samples, EB-REST-02 and/or EB-REST-05: dissolved solids, total nickel, chloroform, and TPH (GC/FID) low fraction. Note that the results for total nickel and TPH (GC/FID) low fraction in the equipment blanks were less than five times the concentration detected in the associated method blank for total nickel and less than 10 times the concentration in the associated method blank for TPH (GC/FID) low fraction; therefore, the results for total nickel and TPH (GC/FID) low fraction in the equipment blanks were likely the result of laboratory method blank contamination and did not affect any associated field samples. Results for dissolved solids and chloroform were either nondetect or detected at a concentration greater than five times the equipment blank concentration; therefore, therefore, there is no impact on data usability.

Trip Blanks

4-Methyl-2-pentanone was detected in the trip blank TRIP BLANK-REST-03. However, 4-methyl-2-pentanone was not detected in the associated samples so there is no impact on data usability due to this detection.

LCS/LCSD

The LCS %R for chlorobenzene (79.8%) was below the laboratory-defined limits (80-121%), in QC batch WG1496569. Therefore, the nondetect results for chlorobenzene in the samples from this QC batch, MW-39, MW-57, MW-64, MW-98, MW-101, MW-103, MW-104, MW-125, MW-126A, MW-126B, UG-1, UG-2, UG-3R, UG-4, KWB-12A, KWB-12B, KWB-13, and RW-10, are potentially biased low.

The LCS %Rs for cis-1,3-dichloropropene (127%) and trichloroethene (136%) were above the laboratory-defined limits (80-123% and 78-124%, respectively), in QC batch WG1496569. However since these compounds were not detected in the samples from this this QC batch, MW-39, MW-57, MW-64, MW-98, MW-101, MW-103, MW-104, MW-125, MW-126A, MW-126B, UG-1, UG-2, UG-3R, UG-4, KWB-12A, KWB-12B, KWB-13, and RW-10, there is no impact on data usability.

The LCS/LCSD %Rs for chlorobenzene (124%/127%), and LCSD %Rs for tetrachloroethene (133%), 1,1,2-trichloroethane (121%), and trichloroethene (129%) were above the laboratory-defined limits (80-121%, 72-132%, 80-120%, and 78-124%, respectively), in QC batch WG1498555. However, since these compounds were not detected in the sample from this this QC batch, DUP-REST-02, there is no impact on data usability.

The LCS %R benzaldehyde (208%) was above the laboratory-defined limits (10-160%), in QC batch WG1496709. However since this compound was not detected in the sample from this this QC batch, MW-95, there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-101, MW-114, MW-125, MW-139: Nitrate-Nitrite
- KWB-11A, UG-2: Cyanide
- MW-64, MW-95, MW-131, UG-2: Chloride, fluoride, sulfate
- UG-3R: Dissolved boron
- MW-64, MW-116: Dissolved metals
- KWB-12B: Total metals
- MW-103: TPH (GC/FID) low fraction

The %Rs of chloride in the MS/MSD performed on sample MW-131, and in the MS performed on samples MW-64 and MW-95 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of this analyte in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of chloride were not used to evaluate potential matrix effects.

The %Rs of sulfate in the MS/MSD performed on sample UG-2 and in the MS performed on sample MW-95 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of this analyte in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of sulfate were not used to evaluate potential matrix effects.

The %Rs of dissolved barium in the MS/MSD performed on sample MW-64 were outside of the laboratory-defined recovery limits (75-125%). However, the concentration of this analyte in the unspiked sample was greater than four times the spiked concentration; thus, the recoveries of dissolved barium were not used to evaluate potential matrix effects.

The %R of dissolved selenium in the MS performed on sample MW-64 (127%) was above the laboratory-defined recovery limits (75-125%); therefore, the positive results for dissolved selenium in samples MW-29, MW-50, MW-57, MW-95, MW-96, MW-114, MW-115, MW-117, MW-116, MW-118, MW-119, MW-125, MW-126B, UG-1, UG-2, UG-3R, UG-4, RW-#16B, RW-#18A, KWB-11A, KWB-11B, KWB-12A, KWB-12B, KWB-13, DUP-REST-02, and DUP-REST-05 may be biased high.

The %Rs of nitrate-nitrite in the MS/MSD performed on sample MW-114 (112%/113%) and the MS performed on sample MW-125 (112%) were above the laboratory-defined recovery limits (90-110%); therefore, the positive results for nitrate-nitrite in samples MW-57, MW-114,

MW-115, MW-117, MW-118, MW-119, MW-125 MW-126B, KWB-11A, KWB-11B, KWB-12A, KWB-12B, and KWB-13 may be biased high.

The %Rs of total calcium in the MS/MSD performed on sample KWB-12B were outside of the laboratory-defined recovery limits (75-125%). However, the concentration of this analyte in the unspiked sample was greater than four times the spiked concentration; thus, the recoveries of total calcium were not used to evaluate potential matrix effects.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-98, MW-126B, KWB-7, RW-10, RW-#18A, DUP-REST-05: Dissolved solids
- MW-29, MW-57, KWB-7, UG-3R: Nitrate-Nitrite
- UG-1: Cyanide
- MW-39, MW-96, MW-104, KWB-7: Chloride, fluoride, sulfate

All criteria were met.

Field Duplicates

Samples MW-104/DUP-REST-02 and KWB-12B/DUP-REST-05 were submitted as the field duplicate pairs. All criteria were met in sample MW-104/DUP-REST-02.

The variability for total nickel in field duplicate pair KWB-12B and DUP-REST-05 did not meet the acceptance limits as the absolute difference was greater than the RL (total nickel was not detected in sample KWB-12B and was detected greater than five times the RL in the field duplicate sample). In addition, the RPD for nitrate-nitrite (32.7%) was above the acceptance criteria (30%) in field duplicate pair KWB-12B/DUP-REST-05. Therefore, the positive and nondetect results for total nickel and nitrate-nitrite in samples KWB-12B and DUP-REST-05 may be considered estimated.

Lab Report L1231128

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1231128-01	MW-130
L1231128-02	MW-52
L1231128-03	MW-109
L1231128-04	MW-110
L1231128-05	RW-12R
L1231128-06	MW-113
L1231128-07	MW-134
L1231128-08	RA-4798
L1231128-09	RA-4196
L1231128-10	RA-3156
L1231128-11	RA-313
L1231128-12	MW-135
L1231128-13	MW-136
L1231128-14	KWB-1A
L1231128-15	MW-111
L1231128-16	RW-4
L1231128-17	MW-99
L1231128-18	MW-66
L1231128-19	MW-28
L1231128-20	MW-59
L1231128-21	MW-60
L1231128-22	MW-105
L1231128-23	MW-61
L1231128-24	MW-62
L1231128-25	MW-93
L1231128-26	MW-43
L1231128-27	MW-23
L1231128-28	MW-42
L1231128-29	RW-7
L1231128-30	RW-#17A
L1231128-31	DUP-REST-01*
L1231128-32	DUP-REST-03**
L1231128-33	DUP-REST-04***
L1231128-34	EB-REST-01
L1231128-35	EB-REST-03
L1231128-36	EB-REST-04
L1231128-37	TRIP BLANK-REST-01

*Field duplicate of MW-113
** Field duplicate of MW-134
*** Field duplicate of MW-60

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?	X		
Any laboratory duplicate RPD above laboratory defined limits?	X		
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blanks were 1.33-20 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the nitrate-nitrite analyses of the following samples were diluted due to sulfide interference. Therefore, the RLs for nitrate-nitrite in these samples were elevated accordingly.

- MW-42, MW-62, MW-93, and RW-7 (50-fold);
- MW-43 (5-fold); and
- MW-23 and DUP-REST-04 (10-fold).

The laboratory noted that the cyanide analyses of samples MW-28, MW-43, MW-60, and DUP-REST-04 were diluted 20-fold due to sulfide interference. Therefore, the RLs for cyanide in these samples were elevated accordingly.

The laboratory noted that the TPH (GC/FID) low fraction analyses of samples MW-42 and RW-7 were diluted 20-fold and 5-fold, respectively, due to foaming at the time of analysis. There is no impact on data usability since TPH (GC/FID) low fraction was detected above the RLs in the diluted samples.

The laboratory noted that the VOC analysis of sample MW-113 was diluted 5-fold due elevated concentrations of non-target analytes and/or matrix interference. Therefore, the RLs for VOCs in this sample were elevated accordingly.

The laboratory noted that the VOC analysis of sample MW-42 was diluted 5-fold due to due to foaming at the time of analysis. Therefore, the RLs for VOCs in this sample were elevated accordingly.

The laboratory noted that the SVOC analysis of sample MW-93 was diluted 5-fold due to matrix interference. Therefore, the RLs for SVOCs in this sample were elevated accordingly.

Several samples were analyzed at dilutions for nitrate-nitrite, chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, and/or VOCs but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for chloride, fluoride, sulfate, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, and select VOCs since these analytes were detected above the RLs in the diluted samples. The RLs for nitrate-nitrite and select VOCs in several samples were elevated accordingly.

Standard Conditions

The laboratory noted that the TPH (GC/FID) low fraction analyses of samples MW-113, MW-109, and MW-23 were performed using a vial with a pH outside of the method requirement ($\leq$2). This pH issue shortens the holding time to seven days and these samples were analyzed for TPH (GC/FID) low fraction after seven days of collection. Therefore, the positive results for TPH (GC/FID) low fraction in samples MW-113, MW-109, and MW-23 may be biased low.

A discrepancy was noted with select laboratory sample IDs that were handwritten on the chain-of-custody versus the actual laboratory sample IDs that were logged in by the laboratory for samples DUP-REST-03, DUP-REST-04, EB-REST-01, EB-REST-03, EB-REST-04, and TRIP BLANK-REST-01. The samples were analyzed for the requested analyses so there is no impact on data usability due to this issue.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: TPH (GC/FID) low fraction, carbon disulfide. The analytes listed below were detected in the corresponding samples at concentrations within 10 times the method blank concentration. Therefore, these samples may include measurement contributions from the laboratory.

- TPH (GC/FID) low fraction: MW-59, MW-61, MW-134, RW-7, EB-REST-04
- Carbon disulfide: MW-52, MW-109, MW-110, MW-111, MW-113, MW-130, MW-134, MW-135, MW-136, KWB-1A, RA-3156, RA-4196, RA-4798, RA-313, RW-4, RW-12R

Equipment Blanks

The following analytes were detected in the equipment blank samples, EB-REST-01, EB-REST-03, and/or EB-REST-04*: total manganese and TPH (GC/FID) low fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the equipment blank concentration for inorganic analytes and within 10 times the maximum equipment blank concentrations for organic analytes. Therefore, these samples may include measurement contributions from the field.

- Total manganese: MW-62, MW-134, DUP-REST-03
- TPH (GC/FID) low fraction: MW-42, MW-43, MW-59*, MW-61*, MW-134*, MW-135, MW-136, RW-7*, RW-#17A, DUP-REST-03, DUP-REST-04

*The results for TPH (GC/FID) low fraction in these samples were also less than 10 times the associated method blank concentration as noted above.

LCS/LCSDs

The LCS %R for n-butylbenzene (72.8%) was below the laboratory-defined limits (73-125%), in QC batch WG1497261. Therefore, the positive and nondetect results for n-butylbenzene in the samples from this QC batch, MW-23, MW-42, MW-59, MW-60, MW-61, MW-62, MW-66, MW-105, MW-93, RW-7, RW-#17A, DUP-REST-03, DUP-REST-04, EB-REST-01, EB-REST-03, EB-REST-04, and TRIP BLANK-REST-01, may be biased low.

The %Rs for chlorobenzene in the LCS (122%) and tetrachloroethene in the LCS/LCSD (133%/142%) were above the laboratory-defined limits (80-121% and 72-132%, respectively), in QC batch WG1499394. Therefore, the positive result for tetrachloroethene in sample DUP-REST-01 from this QC batch may be biased high.

The LCS %R for benzaldehyde (248%) was above the laboratory-defined limits (10-160%), in QC batch WG1496728. However, benzaldehyde was not detected in the sample from this QC batch so there is no impact on data usability.

MS/MSDs

MS and or MS/MSD analyses were performed on the following sample:

- MW-99, MW-134, RW-#17A: Nitrate-nitrite
- MW-110, RW-4, EB-REST-01: Chloride, fluoride, sulfate
- MW-28: Total mercury
- MW-60: Dissolved mercury
- MW-59: Dissolved metals
- MW-23, MW-134: Total metals

The %R (112%) of nitrate-nitrite in the MSD analysis performed on sample MW-134 was above the laboratory-defined recovery limits (90-110%); therefore, the positive results for nitrate-nitrite in samples MW-134, MW-130, MW-52, RA-4798, RA-313, MW-135, MW-136, KWB-1A, and MW-66 may be biased high.

The %Rs of total mercury in the MSD performed on sample MW-28 (72%) and dissolved mercury in the MS/MSD performed on sample MW-60 (68.3%/68.6%) were below the laboratory-defined recovery limits (75-125%); therefore, the nondetect results for total and dissolved mercury in samples MW-28, MW-43, MW-52, MW-60, MW-66, MW-136, KWB-1A, and DUP-REST-04 may be biased low.

The %Rs of chloride and/or sulfate in the MS and/or MSD performed on samples MW-110 and RW-4 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of chloride and sulfate were not used to evaluate potential matrix effects.

The %Rs of calcium and sodium in the MS and MSD performed on sample MW-134 and barium, calcium, and sodium in the MS and/or MSD performed on sample MW-23 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of barium, calcium, and sodium were not used to evaluate potential matrix effects.

Surrogate/Internal Standard Recoveries

The surrogate recovered above the laboratory control limits in the TPH (GC/FID) low fraction analysis of sample MW-136. In addition, the laboratory noted that the internal standards recovered below the laboratory control limits in samples MW-28, MW-136, and DUP-REST-01 which was likely due to matrix interference. Therefore, the positive results for TPH (GC/FID) low fraction in these samples may be biased high.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-66, MW-105, RA-3156: Dissolved solids
- MW-23, MW-110, MW-111, EB-REST-03: Nitrate-nitrite
- MW-66, MW-110, EB-REST-01, EB-REST-04: Chloride, fluoride, sulfate

The RPDs for chloride and sulfate in the duplicate analyses performed on sample EB-REST-01 exceeded the laboratory-defined control limit (5%). However, the results in the parent and duplicate samples were less than 5x the RL so laboratory duplicate RPDs were not applicable.

Field Duplicates

Samples MW-113/DUP-REST-01, MW-134/DUP-REST-03, and MW-60/DUP-REST-04 were submitted as the field duplicate pairs.

The RPD for TPH (GC/FID) low fraction (47.9%) was above the acceptance criteria (30%) in field duplicate pair MW-113 and DUP-REST-01. Therefore, the positive results for TPH (GC/FID) low fraction in samples MW-133 and DUP-REST-01 may be considered estimated.

The variability for nitrate-nitrite in field duplicate pair MW-134 and DUP-REST-03 did not meet the acceptance limits as the absolute difference was greater than the RL (nitrate-nitrite was detected greater than five times the RL in sample MW-134 and not detected in the field duplicate sample). Therefore, the positive and nondetect results for nitrate-nitrite in samples MW-134 and DUP-REST-03 may be considered estimated.

The RPD for fluoride (41.1%) was above the acceptance criteria (30%) in field duplicate pair MW-60 and DUP-REST-04. In addition, the variability for benzene and TPH (GC/FID) low fraction in field duplicate pair MW-60 and DUP-REST-04 did not meet the acceptance limits as the absolute differences were greater than the RL. Therefore, the positive results for fluoride, benzene, and TPH (GC/FID) low fraction in samples MW-60 and DUP-REST-04 may be considered estimated.

Lab Report L1231153

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1231153-01	MW-45
L1231153-02	NCL-34A
L1231153-03	NCL-33
L1231153-04	NCL-44
L1231153-05	NCL-32
L1231153-06	MW-108
L1231153-07	NCL-31
L1231153-08	MW-18
L1231153-09	EB-NCL-01

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?		X	
Any detection in trip blanks?			X
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?			X
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids n all samples except the equipment blank were 2-10 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the nitrate-nitrite analyses of samples NCL-34A and MW-108were diluted 100-fold due to sulfide interference. Therefore, the RLs for nitrate-nitrite in these samples were elevated accordingly.

The laboratory noted that the VOC analysis of sample NCL-34A was diluted 20-fold due to elevated concentrations of target and non-target compounds that would have exceeded the

calibration range if not diluted. Therefore, the RLs for VOCs in this sample were elevated accordingly.

The laboratory noted that the VOC analysis of sample MW-108 was diluted 5-fold due to foaming at the time of analysis. Therefore, the RLs for VOCs in this sample were elevated accordingly.

Several samples were analyzed at dilutions for nitrate-nitrite, chloride, fluoride, and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for nitrate/nitrite, chloride, fluoride, and sulfate since these analytes were detected above the RLs in the diluted samples. The RLs for select VOCs in sample MW-49 were elevated accordingly.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the VOC method blank: carbon disulfide, 2-butanone, and naphthalene. Carbon disulfide was detected in sample MW-108 at a concentration less than 10 times the associated method blank concentration. Therefore, this result may include measurement contributions from laboratory sources.

LCS

The LCS %R for naphthalene (137%) was above the laboratory-defined limits (54-135%), in QC batch WG1497262. However, this compound was not detected in the associated samples so there is no impact on data usability.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following sample:

- NCL-44, MW-108: Dissolved solids
- EB-NCL-01: Nitrate-nitrite, chloride, fluoride, sulfate

All criteria were met.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following sample:

- MW-45: Nitrate-nitrite
- MW-18: Fluoride
- NCL-44: Dissolved metals

The %Rs for dissolved manganese in the MS and MSD performed on sample NCL-44 were below the laboratory-defined recovery limits (75-125%). However, the concentration of this analyte in the unspiked sample was greater than four times the spiked concentration; thus, the recoveries of dissolved manganese were not used to evaluate potential matrix effects.

Lab Report L1231155

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1231155-01	MW-25
L1231155-02	MW-20
L1231155-03	NP-1
L1231155-04	MW-8
L1231155-05	MW-21
L1231155-06	MW-71
L1231155-07	MW-68
L1231155-08	MW-27
L1231155-09	MW-89
L1231155-10	MW-16
L1231155-11	MW-26
L1231155-12	MW-46R
L1231155-13	TRIP BLANK-TMD-01

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?			X
Any detection in trip blanks?	X		
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?			X
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?			X
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blank were 2.5-10 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

Several samples were analyzed at dilutions for methyl tert-butyl ether, nitrate-nitrite, chloride, and/or sulfate but the laboratory did not include a sample narrative explaining the

dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for methyl tert-butyl ether, nitrate/nitrite, chloride, and sulfate since these analytes were detected above the RLs in the diluted samples.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: total chromium, carbon disulfide, 2-butanone, and naphthalene. Total chromium in sample MW-8 was detected at a concentration within five times the method blank concentration. Therefore, this result may include measurement contributions from laboratory sources.

Trip Blanks

Carbon disulfide was detected in the trip blank TRIP BLANK-TMD-01. Carbon disulfide was detected in sample MW-46R less than 10 times the concentration in the associated trip blank. Therefore, this sample may include measurement contributions from transport from the field to the laboratory.

LCS

The LCS %R for naphthalene (137%) was above the laboratory-defined limits (54-135%), in QC batch WG1497262. However, this compound was not detected in the associated samples so there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-27, MW-46R: Nitrate-Nitrite
- MW-20: Chloride, fluoride, sulfate

The %Rs of chloride and sulfate in the MS/MSD performed on sample MW-20 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of chloride and sulfate were not used to evaluate potential matrix effects.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-25: Chloride, fluoride, sulfate

All criteria were met.

Lab Report L1231207

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1231207-01	MW-86
L1231207-02	MW-84
L1231207-03	MW-122
L1231207-04	MW-81
L1231207-05	MW-80
L1231207-06	MW-79
L1231207-07	MW-82
L1231207-08	MW-2A
L1231207-09	MW-76
L1231207-10	MW-77
L1231207-11	MW-78
L1231207-12	MW-75
L1231207-13	MW-83
L1231207-14	MW-3
L1231207-15	MW-22A
L1231207-16	MW-10
L1231207-17	MW-123
L1231207-18	MW-1R
L1231207-19	MW-15
L1231207-20	OCD-1R
L1231207-21	OCD-2A
L1231207-22	OCD-3
L1231207-23	OCD-4
L1231207-24	MW-11A
L1231207-25	OCD-5
L1231207-26	DUP-EP-02*
L1231207-27	DUP-EP-03**
L1231207-28	EB-EP-04
L1231207-29	TRIP BLANK-EP-03

*Field duplicate of MW-22A
**Field duplicate of MW-3

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?	X		
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?	X		
Any laboratory duplicate RPD above laboratory defined limits?	X		
Any field duplicate data additionally flagged as estimated?		X	
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except the equipment blank were 5-40 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the cyanide and nitrate-nitrite analyses of sample MW-86 were diluted 50-fold and 20-fold, respectively, due to sulfide interference. Therefore, the RLs for cyanide and nitrate-nitrite in this sample were elevated accordingly.

The laboratory noted that the following sample analyses were diluted due to due to foaming at the time of analysis. . Therefore, the RLs for analytes listed below in the corresponding sample were elevated accordingly.

- MW-86: TPH (GC/FID) low fraction (50-fold)
- MW-86: VOCs (20-fold)
- MW-84: VOCs (5-fold)
- MW-3, MW-75, MW-78, MW-122: TPH (GC/FID) low fraction (50-fold)
- MW-3, MW-75, MW-77: VOCs (25-fold)

Several samples were analyzed at dilutions for calcium, sodium, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, chloride, fluoride. and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for calcium, sodium, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, chloride, fluoride, and sulfate since these analytes were detected above the RLs in the diluted samples.

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Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: nitrate-nitrite, tetrachloroethene, and total sodium. The analytes listed below were detected in the corresponding samples at concentrations within five times the method blank concentration for inorganic analytes and within 10 times the method blank concentration for organic analytes. Therefore, these results may include measurement contributions from laboratory sources.

- Nitrate-nitrite: MW-3, MW-22A, OCD-1R, OCD-3
- Total sodium: EB-EP-04
- Tetrachloroethene: OCD-3

Equipment Blanks

Total sodium was detected in the equipment blank sample. However, the result for total sodium in the equipment blank was less than five times the concentration detected in the associated method blank; therefore, the result for total sodium in the equipment blank was probably the result of laboratory method blank contamination and did not affect any associated field samples.

LCS

The LCS %R for dissolved solids (79.8%) was below the laboratory-defined limits (85-115%) in QC batch WG1498158. Therefore, the positive and nondetect results for dissolved solids in samples MW-11A, OCD-5, DUP-EP-02, DUP-EP-03, and EB-EP-04 may be biased low.

The LCS %Rs for chlorobenzene (128%) and tetrachloroethene (135%) were above the laboratory-defined limits (80-121% and 72-132%, respectively) in QC batch WG1497524. However, since these compounds were not detected in the samples from this QC batch, there is no impact on data usability.

The LCS %Rs for n-butylbenzene (68%), sec-butylbenzene (74.6%), and 1,3,5-trimethylbenzene (75.2%) were below the laboratory-defined limits (73-125%, 75-125%, and 76-122%, respectively) in QC batch WG1497747. Therefore, the nondetect results for n-butylbenzene, sec-butylbenzene, and 1,3,5-trimethylbenzene in samples from this QC batch, MW-1R, MW-2A, MW-10, MW-11A, MW-15, MW-76, MW-78, MW-82, MW-83, MW-123, OCD-1R, OCD-2A, OCD-3, OCD-4, OCD-5, and DUP-EP-02, may be biased low.

The LCS %R for tetrachloroethene (158%) was above the laboratory-defined limits (72-132%) in QC batch WG1497747. Therefore, the positive result for tetrachloroethene in sample OCD-3 may be biased high.

The LCS/LCSD RPD for bromomethane (29.5%) was above the laboratory-defined limit (25%) in QC batch WG1498067. However, since this compound was not detected in the sample in this QC batch, no data interpretation issues were noted.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-3, OCD-2A: Nitrate-Nitrite
- MW-22A, MW-80, DUP-EP-03: Chloride, fluoride, sulfate
- OCD-2A: Dissolved metals
- MW-10, MW-122: Total metals

The %Rs of chloride and sulfate in the MS and/or MSD performed on samples MW-80, MW-22A, and DUP-EP-03 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of these analytes in the unspiked sample were greater than four times the spiked concentrations; thus, the recoveries of chloride and sulfate were not used to evaluate potential matrix effects.

The %Rs of total manganese in the MS and MSD performed on sample OCD-2A were outside of the laboratory-defined recovery limits (75-125%). However, the concentration of this analyte in the unspiked sample was greater than four times the spiked concentration; thus, the recoveries of total manganese were not used to evaluate potential matrix effects.

The %Rs of total calcium, manganese, and sodium in the MS and/or MSD performed on samples MW-10 and MW-122 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of these analytes in the unspiked samples were greater than four times the spiked concentrations; thus, the recoveries of total calcium, manganese, and sodium were not used to evaluate potential matrix effects.

Surrogate Recoveries

The surrogates recovered below the laboratory control limits in the 20-fold diluted TPH (GC/FID) high fraction analyses of samples MW-76, MW-77, MW-78, MW-84, and MW-86. However, there is no impact on data usability due to this issue since the samples were diluted $\geq$10-fold.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-11A, MW-81, MW-122, OCD-2A: Dissolved solids
- MW-79, MW-80, OCD-5, DUP-EP-02: Nitrate-Nitrite
- MW-78, MW-82, EB-EP-04: Chloride, fluoride, sulfate

The RPD (45.2%) for dissolved solids in the duplicate analysis performed on sample MW-11A exceeded the acceptance criteria used in this evaluation (20%). Therefore, the positive result for dissolved solids in sample MW-11A may be considered estimated.

Field Duplicates

Samples MW-22A/DUP-EP-02 and MW-3/DUP-EP-03 were submitted as the field duplicate pairs. All criteria were met.

Lab Report L1271283

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271283-01	TEL-4
L1271283-02	TEL-3
L1271283-03	MW-49
L1271283-04	DUP-TEL-01*
L1271283-05	EB-TEL-01
L1271283-06	TRIP BLANK-TEL-01

*Field duplicate of TEL-4

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?		X	
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?	X		
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in all samples except sample TEL-3 were 1.33-2 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids . There is no impact on data usability since dissolved solids results were detected above the RLs in the affected samples.

Several samples were analyzed at dilutions for VOCs, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, chloride, and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for select VOCs, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, chloride, and sulfate since these analytes were detected above the RLs in the diluted samples.

The laboratory noted that the TPH (GC/FID) low fraction analysis of sample TEL-4 was diluted 10-fold due to foaming at the time of analysis. Therefore, the RL for TPH (GC/FID) low fraction in this sample was elevated accordingly.

The laboratory noted that the VOC analysis of sample TEL-4 was diluted 5-fold due to matrix interference. Therefore, the RLs for VOCs in this sample were elevated accordingly.

The laboratory noted that the cyanide analysis of sample MW-49 was diluted 5-fold due to sulfide interference. Therefore, the RL for cyanide in this sample was elevated accordingly.

Standard Conditions

The laboratory indicated that the pH was outside of the requirement ($\leq$2) for samples TEL-4, MW-49, and DUP-TEL-4 for TPH (GC/FID) high fraction. However, since these samples were prepared for TPH (GC/FID) high fraction less than seven days day after collection, there is no adverse impact on the data usability.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Equipment Blanks

Dissolved solids was detected in the equipment blank, EB-TEL-01. Dissolved solids was detected in the associated samples at concentrations greater than five times the equipment blank concentration; therefore, there is no impact on data usability.

LCS/LCSD

The %Rs for bromomethane (164%) and trichloroethene (125%) in the LCS were above the laboratory-defined limits (10-160% and 78-124%, respectively) in QC batch WG1560650. These compounds were not detected in the associated sample, TEL-3; therefore, there is no impact on data usability.

The RPDs for acetone (31.4%) and 2-butanone (20.1%) in the LCS/LCSD were above the laboratory-defined limits (27% and 20%, respectively) in QC batch WG1560663. These compounds were not detected in the associated samples, DUP-TEL-01, EB-TEL-01, and TRIP BLANK-TEL-01; therefore, there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- TEL-3: Nitrate-nitrite
- TEL-4: Total metals

The %R of nitrate-nitrite MS performed on sample TEL-3 (87.6%) was below the laboratory-defined recovery limits (90-110%); thus, the nondetect results for nitrate-nitrite in samples TEL-4, TEL-3, MW-49, and DUP-TEL-01 may be biased low.

The %Rs for total calcium, manganese, and sodium were outside of the acceptance limits (75-125%) in the MS and/or MSD performed on sample TEL-4. However, the concentrations of, total calcium, manganese, and sodium in the unspiked sample were greater than four times the concentrations spiked; thus, the recoveries of these analytes were not used to evaluate potential matrix effects.

The %R of total nickel in the MSD performed on sample TEL-4 (66.8%) was below the laboratory-defined recovery limits (75-125%). Although total nickel was not reported in the parent sample, this result is indicative of a potential low bias in other project samples. Thus, the positive result for total nickel in sample MW-49 may be biased low.

Laboratory Duplicates

Laboratory duplicate analysis was performed on sample EB-TEL-01 for chloride, fluoride, and sulfate. All criteria were met.

Field Duplicates

Samples TEL-4/DUP-TEL-01 were submitted as the field duplicate pair. The RPD (68%) for total chromium did not meet the acceptance limits (<30%). Therefore, the positive results for total chromium in samples TEL-4 and DUP-TEL-01 may be considered estimated.

Lab Report L1271284

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271284-01	MW-45
L1271284-02	NCL-33
L1271284-03	NCL-44
L1271284-04	NCL-32
L1271284-05	MW-108
L1271284-06	NCL-31
L1271284-07	MW-55
L1271284-08	MW-54A
L1271284-09	NCL-49
L1271284-10	DUP-NCL-01*
L1271284-11	EB-NCL-01
L1271284-12	TRIP BLANK-NCL-01
L1271284-13	MW-53R

*Field duplicate of NCL-49

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?	X		
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?	X		
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?		X	
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in several samples were two times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume either due to elevated concentrations of dissolved solids . There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

Several samples were analyzed at dilutions for TPH (GC/FID) high fraction, VOCs, chloride, sulfate, fluoride, and/or nitrate-nitrite but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted due to the presence of the target

analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for select VOCs, TPH (GC/FID) high fraction, chloride, sulfate, and fluoride since these analytes were detected above the RLs in the diluted samples. The RLs for select VOCs in sample MW-108 were elevated accordingly.

The laboratory noted that the VOC analysis of sample MW-55 was diluted 10-fold due to foaming at the time of analysis. Therefore, the RLs for VOCs in this sample were elevated accordingly.

A discrepancy was noted with select laboratory sample IDs that were handwritten on the chain-of-custody versus the actual laboratory sample IDs that were logged in by the laboratory for all samples except MW-45. The samples were analyzed for the requested analyses so there is no impact on data usability due to this issue.

Standard Conditions

The laboratory indicated that VOC analysis for the trip blank, TRIP BLANK-NCL-01, was performed using a vial with headspace. Therefore, the nondetect results for all VOCs in this sample are potentially biased low.

Holding Times

All samples submitted for dissolved solids analysis were prepared slightly outside of the 7-day holding time. However, since all samples were prepared for dissolved solids on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: dissolved solids, chloride, total vanadium, and trichloroethene. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum method blank concentration for inorganic analytes; affected analytes were detected in the corresponding samples greater than 10 times the method blank concentrations for organic analytes. Therefore, these results may include measurement contributions from laboratory sources.

- Chloride: NCL-49, DUP-NCL-01, EB-NCL-01

Equipment Blanks

Dissolved solids, chloride*, and TPH (GC/FID) high fraction were detected in the equipment blank, EB-NCL-01. Dissolved solids was detected in the corresponding samples at concentrations greater than five times the equipment blank concentration so there is no impact on data usability. The analyte listed below was detected in the corresponding samples at concentrations within 10 times the method blank concentration for organic analytes. Therefore, these results may include measurement contributions from laboratory sources.

- TPH (GC/FID) high fraction: NCL-49, DUP-NCL-01, MW-53R

*Chloride was detected in the equipment blank sample at a concentration less than five times the associated method blank concentration; therefore, the equipment blank result for chloride was

probably the result of laboratory method blank contamination and did not affect any associated field samples.

LCS/LCSD

The LCS/LCSD RPDs for acetone (31.4%) and 2-butanone (20.1%) were above the laboratory-defined limits (27% and 20%, respectively), in QC batch WG1560663. However, since these compounds were not detected in the sample associated with this QC batch, there is no impact on data usability.

The LCS %R for trichloroethene (145%) was above the laboratory-defined limits (78-124%), in QC batch WG1560666. However, since this compound was not detected in the samples associated with this QC batch or since trichloroethene was reported in a different QC batch for the associated samples, there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-45, MW-54A: Nitrate-nitrite
- MW-108: Chloride, fluoride
- EB-NCL-01: Chloride, fluoride, sulfate

The %R of nitrate-nitrite in the MS performed on sample MW-54A (118%) was above the laboratory-defined recovery limits (90-110%). Thus, the positive results for nitrate-nitrite in samples NCL-32, NCL-49, and DUP-NCL-01 may be biased high.

Surrogate Recoveries

The surrogate recovered above the laboratory control limits in the 10-fold diluted TPH (GC/FID) high fraction analysis of sample NCL-33. However, there is no impact on data usability due to this issue since the sample was diluted $\geq$10-fold.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- NCL-44: Nitrate-nitrite
- MW-55: Cyanide
- MW-108, EB-NCL-01: Chloride, fluoride, sulfate

All criteria were met.

Field Duplicates

Samples NCL-49 and DUP-NCL-01 were submitted as field duplicate pair. All criteria were met.

Lab Report L1271297

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271297-01	MW-21
L1271297-02	MW-46R
L1271297-03	TRIP BLANK-TMD-01
L1271297-04	NP-1

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?			X
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?			X
Any MS/MSD RPD above laboratory defined limits?			X
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?			X
Any field duplicate data additionally flagged as estimated?			X
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

RLs for dissolved solids in samples MW-21 and MW-46R were 2-5 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentrations of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

Samples MW-21 and MW-46R were analyzed at dilutions for VOCs, nitrate-nitrite, chloride, and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for select VOCs, nitrate-nitrite, chloride, and sulfate since these analytes were detected above the RLs in the diluted samples. The RLs for select VOCs in sample MW-21 were elevated accordingly.

Standard Conditions

The laboratory indicated that VOC analysis for the trip blank, TRIP BLANK-TMD-01, was performed using a vial with headspace. Therefore, the nondetect results for all VOCs in this sample are potentially biased low.

A discrepancy was noted with the nonconformance (NCF) circled on the chain-of-custody (COC). The laboratory indicated during this review that the NCF was due to missing sample containers for sample NP-1. Sample NP-1 was received by the laboratory one day after the remaining samples; since this sample arrived in good condition, the NCF notation was later removed from the COC by the laboratory.

Holding Times

Samples MW-21 and MW-46R were prepared slightly outside of the 7-day holding time for dissolved solids analysis. However, since all samples were prepared for dissolved solids analysis on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

Chloride was detected in the method blank. Chloride was detected in sample MW-46R at a concentration within five times the method blank concentration. Therefore, this result may include measurement contributions from laboratory sources.

Lab Report L1271298

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271298-01	MW-86
L1271298-02	MW-120
L1271298-03	MW-121
L1271298-04	MW-84
L1271298-05	MW-122
L1271298-06	MW-79
L1271298-07	MW-74
L1271298-08	MW-2A
L1271298-09	OCD-6
L1271298-10	OCD-7AR
L1271298-11	MW-76
L1271298-12	MW-75
L1271298-13	MW-83
L1271298-14	MW-3
L1271298-15	MW-88
L1271298-16	MW-22A
L1271298-17	MW-10
L1271298-18	MW-123
L1271298-19	MW-4A
L1271298-20	MW-5A
L1271298-21	MW-7A
L1271298-22	OCD-8A
L1271298-23	OCD-1R
L1271298-24	OCD-2A
L1271298-25	OCD-3
L1271298-26	OCD-4
L1271298-27	MW-11A
L1271298-28	OCD-5
L1271298-29	MW-87
L1271298-30	MW-18A
L1271298-31	MW-70
L1271298-32	MW-124
L1271298-33	DUP-EP-01*
L1271298-34	DUP-EP-02**
L1271298-35	DUP-EP-03***
L1271298-36	EB-EP-01
L1271298-37	EB-EP-02
L1271298-38	EB-EP-03
L1271298-39	EB-EP-04
L1271298-40	TRIP BLANK-EP-01
L1271298-41	TRIP BLANK-EP-02

*Field duplicate of MW-7A
**Field duplicate of MW-22A
***Field duplicate of MW-3

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?		X	
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?	X		
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

The laboratory noted that the VOC analysis of sample MW-75 was diluted 25-fold due to elevated concentrations of non-target analytes. Therefore, the RLs for VOCs in this sample were elevated accordingly.

RLs for dissolved solids in all samples except the equipment blanks were 4-50 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that the TPH (GC/FID) low fraction and/or VOC analyses of select samples were diluted due to foaming at the time of analysis. Therefore, the RLs for TPH (GC/FID) low fraction and/or VOCs in these samples were elevated accordingly.

- MW-86 (200-fold): TPH (GC/FID) low fraction
- MW-86 (20-fold): VOCs
- MW-120 (5-fold): VOCs
- MW-84 (10-fold): VOCs
- MW-3, MW-122 (50-fold): TPH (GC/FID) low fraction

Several samples were analyzed at dilutions for nitrate-nitrite, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, calcium, sodium, chloride, fluoride, and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for nitrate-

nitrite, TPH (GC/FID) high fraction, calcium, sodium, chloride, fluoride, and sulfate since these analytes were detected above the RLs in the diluted samples. The RLs for TPH (GC/FID) low fraction were elevated accordingly in select samples.

Standard Conditions

The laboratory indicated that the pH was outside of the requirement (<2) for sample MW-86 for TPH (GC/FID) high fraction. However, since this sample was prepared for TPH (GC/FID) high fraction analysis less than seven days day after collection, there is no adverse impact on the data usability.

Holding Times

Samples MW-5A, MW-7A, MW-18A, MW-79, MW-120, MW-121, MW-124, OCD-5, OCD-8A, DUP-EP-01, DUP-EP-02, EB-EP-01, EB-EP-02, EB-EP-03, and EB-EP-04 were prepared slightly outside of the 7-day holding time. However, since these samples were prepared for dissolved solids analysis on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: total vanadium, total sodium, cis-1,2-dichloroethene, carbon disulfide, TPH (GC/FID) low fraction, and TPH (GC/FID) high fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum method blank concentration for inorganic analytes and within 10 times the method blank concentrations for organic analytes. Therefore, these results may include measurement contributions from laboratory sources.

- TPH (GC/FID) low fraction: MW-3, MW-7A, MW-87, MW-88, OCD-1R, OCD-2A, OCD-3, OCD-4
- cis-1,2-Dichloroethene: OCD-6
- Carbon disulfide: MW-70
- TPH (GC/FID) high fraction: MW-18A, MW-87, MW-124, EB-EP-01, EB-EP-02, EP-EB-03, EP-EB-04

Equipment Blanks

The following analytes were detected in the equipment blank samples, EB-EP-01, EB-EP-02, EP-EB-03, and EP-EB-04: Dissolved solids, nitrate-nitrite, chloride, sulfate, and/or TPH (GC/FID) high fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum equipment blank concentration for inorganic analytes. Therefore, these samples may include measurement contributions from the field.

- Nitrate-nitrite: MW-2A, MW-3, MW-22A, OCD-1R, DUP-EP-03
- Chloride: MW-2A, MW-3, MW-4A, MW-5A, MW-7A, MW-10, MW-22A, MW-74, MW-75, MW-76, MW-79, MW-83, MW-84, MW-86, MW-120, MW-121, MW-122, MW-123, MW-124, OCD-1R, OCD-7AR, DUP-EP-01, DUP-EP-02, DUP-EP-03

- Sulfate: MW-2A, MW-3, MW-4A, MW-7A, MW-10, MW-22A, MW-75, MW-76, MW-83, MW-121, MW-122, MW-123, OCD-1R, DUP-EP-01, DUP-EP-02, DUP-EP-03

*Note that the results for TPH (GC/FID) high fraction in the equipment blanks were less than 10 times the concentration detected in the associated method blank; therefore, the results for TPH (GC/FID) high fraction in the equipment blanks were probably the result of laboratory method blank contamination and did not affect any associated field samples.

LCS/LCSD

The LCS %Rs for carbon tetrachloride (128%) and 1,1,1-trichloroethane (126%) were above the laboratory-defined limits (68-126% and 73-124%, respectively) in QC batch WG1560682. However, since these compounds were not detected in the samples in this QC batch, there is no impact on data usability.

The LCS %R for trans-1,3-dichloropropene (77.2%) was below the laboratory-defined limits (78-124%) in QC batch WG1560699. This compound was not detected in the associated samples, MW-83, OCD-1R, OCD-2A, and DUP-EP-03 and may be biased low.

The LCS %Rs for bromomethane (185%) and trichloroethene (133%) were above the laboratory-defined limits (10-160% and 78-124%, respectively), in QC batch WG1560700. However, since these compounds were not detected in the samples in this QC batch, there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-75, MW-7A, DUP-EP-03: Nitrate-nitrite
- OCD-8A: Cyanide
- MW-121, MW-123, EB-EP-01: Chloride, fluoride, sulfate
- MW-18A: Total mercury
- MW-2A, OCD-6, MW-87: Total metals

The %Rs of nitrate-nitrite in the MS and MSD performed on sample MW-7A (89.2%/88.4%) and the MS performed on sample DUP-EP-03 (86.2%) were below the laboratory-defined recovery limits (90-110%); therefore, the positive and nondetect results for nitrate-nitrite in all groundwater samples in this laboratory report except MW-75 may be biased low.

The %Rs of sulfate and chloride in the MS and MSDs performed on samples MW-121 and MW-123 were outside of the laboratory-defined recovery limits (80-120%). However, the concentrations of these analytes in the unspiked samples were greater than four times the spiked concentrations; thus, the recoveries of sulfate and chloride were not used to evaluate potential matrix effects.

The %Rs of total manganese and total sodium in the MS and/or MSD performed on sample MW-2A were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of total manganese and total sodium in the unspiked sample were greater than four

times the concentration spiked; thus, the recoveries of total manganese and total sodium were not used to evaluate potential matrix effects.

The %Rs of total calcium, total manganese, and total sodium in the MS and MSDs performed on samples OCD-6 and MW-87 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of total calcium, total manganese, and total sodium in the unspiked samples were greater than four times the concentration spiked; thus, the recoveries of total calcium, total manganese, and total sodium were not used to evaluate potential matrix effects.

Surrogate Recoveries

The surrogate recovered outside of the laboratory control limits in the 20-fold diluted TPH (GC/FID) high fraction analyses of samples MW-84 and MW-86, and the 10-fold diluted TPH (GC/FID) high fraction analysis of sample MW-75. However, there is no impact on data usability due to this issue since the samples were diluted ≥10-fold.

The surrogate recovered above the laboratory control limits in the TPH (GC/FID) low fraction analysis of sample MW-2A. However, there is no impact on data usability due to this issue since TPH (GC/FID) low fraction was not detected in sample MW-2A.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-5A, MW-7A: Dissolved solids
- MW-5A, MW-86, OCD-8A, EB-EP-01: Nitrate-nitrite
- MW-121, MW-123, EB-EP-01: Chloride, fluoride, sulfate

All criteria were met.

Field Duplicates

Samples MW-7A/DUP-EP-01, MW-22A/DUP-EP-02, and MW-3/DUP-EP-03 were submitted as the field duplicate pairs. All criteria were met in the field duplicate pair MW-22A/DUP-EP-02.

The RPDs for total arsenic (43.4%) and total iron (48.9%) in field duplicate pair MW-7A/DUP-EP-01 did not meet the acceptance limits (<30%). Therefore, the positive results for total arsenic and total iron in samples MW-7A and DUP-EP-01 may be considered estimated.

The results for TPH (GC/FID) low fraction and sulfate were <5x the RL in field duplicate pair, MW-3/DUP-EP-03. The absolute differences were greater than the RL. Therefore, the positive results for TPH (GC/FID) low fraction and sulfate in samples MW-3 and DUP-EP-03 may be considered estimated.

Lab Report L1271301

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271301-01	MW-130
L1271301-02	MW-52
L1271301-03	MW-109
L1271301-04	MW-110
L1271301-05	MW-134
L1271301-06	MW-115
L1271301-07	MW-114
L1271301-08	MW-117
L1271301-09	MW-118
L1271301-10	MW-119
L1271301-11	MW-136
L1271301-12	MW-126A
L1271301-13	MW-126B
L1271301-14	KWB-1A
L1271301-15	MW-57
L1271301-16	KWB-12A
L1271301-17	KWB-12B
L1271301-18	MW-104
L1271301-19	MW-64
L1271301-20	MW-102
L1271301-21	MW-66
L1271301-22	MW-28
L1271301-23	MW-60
L1271301-24	MW-125
L1271301-25	MW-116
L1271301-26	MW-101
L1271301-27	MW-105
L1271301-28	MW-61
L1271301-29	MW-62
L1271301-30	MW-23
L1271301-31	MW-39
L1271301-32	MW-98
L1271301-33	MW-106
L1271301-34	MW-50
L1271301-35	MW-90
L1271301-36	MW-96
L1271301-37	DUP-REST-02**
L1271301-38	DUP-REST-03***
L1271301-39	DUP-REST-04****
L1271301-40	DUP-REST-05*****
L1271301-41	EB-REST-02

Lab ID	Sample ID
L1271301-42	EB-REST-03
L1271301-43	EB-REST-04
L1271301-44	EB-REST-05
L1271301-45	TRIP BLANK-REST-01
L1271301-46	TRIP BLANK-REST-02
L1271301-47	TRIP BLANK-REST-03
L1271301-48	TRIP BLANK-REST-04
L1271301-49	MW-43
L1271301-50	MW-62R
L1271301-51	MW-139
L1271301-52	MW-113
L1271301-53	KWB-8
L1271301-54	RA-4798
L1271301-55	RA-4196
L1271301-56	KWB-7
L1271301-57	MW-135
L1271301-58	KWB-11A
L1271301-59	KWB-11B
L1271301-60	MW-29
L1271301-61	DUP-REST-01*
L1271301-62	EB-REST-01

*Field duplicate of MW-113
**Field duplicate of MW-104
***Field duplicate of MW-134
****Field duplicate of MW-60
*****Field duplicate of KWB-12B

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X	
All samples within holding times?		X	
Any detection in method blanks?	X		
Any detection in equipment blanks?	X		
Any detection in trip blanks?	X		
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS/MSD %R outside of laboratory defined limits?	X		
Any MS/MSD RPD above laboratory defined limits?	X		
Any surrogate %R outside of laboratory defined limits?	X		
Any laboratory duplicate RPD above laboratory defined limits?	X		
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

The laboratory noted that the VOC analyses of samples MW-23, MW-43, MW-61, MW-62, MW-96, MW-98, and MW-106 were diluted 10-fold, 50-fold, 50-fold, 20-fold, 250-fold, 50-fold, and 200-fold, respectively, due to elevated concentrations of target and non-target analytes. Therefore, the RLs for VOCs in these samples were elevated accordingly.

RLs for dissolved solids in several samples were 1.33-3.33 times higher than the associated method blank but the laboratory did not include a sample narrative explaining the elevated RLs. The samples were likely prepared at a reduced volume either due to the elevated concentration of dissolved solids. There is no impact on data usability since dissolved solids results were above the RLs in the affected samples.

The laboratory noted that sample KWB-8 was diluted 20-fold for nitrate-nitrite due to sulfide interference. Therefore, the RL for nitrate-nitrite in this sample was elevated accordingly.

Several samples were analyzed at dilutions for nitrate-nitrite, VOCs, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, cyanide, metals, chloride, fluoride, and/or sulfate but the laboratory did not include a sample narrative explaining the dilutions. The samples were likely diluted either due to matrix interference and/or the presence of target and/or non-target analytes which would have exceeded the calibration range if undiluted. There is no impact on data usability for nitrate-nitrite, TPH (GC/FID) low fraction, TPH (GC/FID) high fraction, chloride, fluoride, and sulfate since these analytes were detected above the RLs in the diluted samples. The RLs for cyanide and select metals were elevated accordingly in select samples.

Standard Conditions

The laboratory indicated that the pH was outside of the requirement (<2) for the following sample analyses. However, since these samples were prepared for the analyses listed below less than seven days day after collection, there is no adverse impact on the data usability.

- TPH (GC/FID) low fraction: MW-43, MW-62R, MW-96, MW-106, MW-109
- TPH (GC/FID) high fraction: MW-23, MW-39, MW-43, MW-96, MW-102, MW-106, MW-109, KWB-8

The laboratory indicated that metals containers were not received for samples RA-4798 and RA-4196. Therefore, aliquots for metals analyses were prepared and preserved by the laboratory using volume from unpreserved containers provided for other analyses of these two samples. Since the samples were preserved for metals by the laboratory more than 24 hours after collection, the positive results for metals in samples RA-4798 and RA-4196 are potentially biased low.

Holding Times

Samples RA-4798 and RA-4196 were analyzed 17 days after the 14-day holding time for benzene due to carryover in the original analyses. **Due to this significant holding time exceedance (>2x the holding time), the nondetect results for benzene in samples RA-4798 and RA-4196 collected on 10/6/20 are not useable for project objectives.** Due to this issue, these samples were re-collected on 11/6/20 and submitted in report L1283074. The nondetect results for

benzene in samples RA-4798 and RA-4196 collected on 11/6/20 in report L1283074 should be used for project objectives.

Samples MW-23, MW-29, MW-39, MW-50, MW-57, MW-61, MW-62, MW-64, MW-90, MW-98, MW-101, MW-102, MW-104, MW-105, MW-106, MW-113, MW-118, MW-119, MW-126A, MW-126B, MW-134, MW-135, MW-136, MW-139, KWB-1A, KWB-7, KWB-8, KWB-11A, KWB-11B, KWB-12A, KWB-12B, RA-4196, RA-4798, DUP-REST-01, DUP-REST-02, DUP-REST-03, DUP-REST-05, EB-REST-01, EB-REST-02, EB-REST-03, and EB-REST-05 were prepared slightly outside of the 7-day holding time. However, since these samples were prepared for dissolved solids analysis on the 7th day after collection, there is no adverse impact on the data usability.

Laboratory Method Blanks

The following analytes were detected in the method blanks: dissolved solids, total sodium, total manganese, benzene, carbon disulfide, and TPH (GC/FID) high fraction. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum method blank concentration for inorganic analytes and within 10 times the method blank concentrations for organic analytes. Therefore, these results may include measurement contributions from laboratory sources.

- Dissolved solids: EB-REST-01
- Total manganese: MW-61, MW-62, MW-116, MW-119, MW-136, KWB-12A
- Benzene: DUP-REST-04, EB-REST-01, EB-REST-04, TRIP BLANK-REST-03
- Carbon disulfide: MW-29, MW-113, MW-135, KWB-7, KWB-8, KWB-11A, KWB-11B, RA-4196, RA-4798, DUP-REST-01, DUP-REST-04, EB-REST-01, EB-REST-04, TRIP BLANK-REST-03
- TPH (GC/FID) high fraction: MW-57, MW-115, MW-116, MW-117, MW-118, MW-119, MW-125, MW-126A, MW-126B, MW-134, MW-135, MW-136, KWB-1A, EB-REST-04

Equipment Blanks

The following analytes were detected in the equipment blank samples, EB-REST-01, EB-REST-02, EP-REST-03, EP-REST-04, and/or EP-REST-05: Dissolved solids**, chloride, sulfate, benzene**, carbon disulfide**, toluene, and/or TPH (GC/FID) high fraction**. The analytes listed below were detected in the corresponding samples at concentrations within five times the maximum equipment blank concentration for inorganic analytes and within 10 times the maximum equipment blank concentration for organic analytes. Therefore, these samples may include measurement contributions from the field.

- Chloride: MW-28, MW-29, MW-50, MW-52, MW-60, MW-61, MW-90, MW-98, MW-102, MW-106, MW-114, MW-115, MW-116, MW-117, MW-118, MW-119, MW-125, MW-126A, MW-126B, MW-130, MW-134, MW-135, MW-136, MW-139, KWB-1A, KWB-8, KWB-12A, KWB-12B, RA-4798, RA-4196, KWB-11A, KWB-11B, DUP-REST-05

- Sulfate: MW-23, MW-29, MW-43, MW-52, MW-60, MW-66, MW-90, MW-96, MW-98, MW-102, MW-105, MW-106, MW-114, MW-130, MW-139, KWB-11A, KWB-11B
- Toluene: MW-28, MW-39, MW-43, MW-62R, MW-66, MW-90, MW-102, MW-105, MW-106, MW-109, MW-113
- TPH (GC/FID) high fraction: MW-52, MW-57*, MW-115*, MW-116*, MW-117*, MW-118*, MW-119*, MW-125*, MW-126A*, MW-126B*, MW-134*, MW-135*, MW-136*, KWB-1A*, KWB-11A, KWB-11B, DUP-REST-03, DUP-REST-05

*This result was also less than 10 times the associated method blank concentration.

**Note that the results for benzene and carbon disulfide in equipment blank samples EB-REST-01 and EB-REST-04, dissolved solids in equipment blank sample EB-REST-01, and TPH (GC/FID) high fraction in equipment blank sample EB-REST-04 were less than 10 times the concentration detected in the associated method blank; therefore, the results for benzene, carbon disulfide, and/or TPH (GC/FID) high fraction in these equipment blanks were probably the result of laboratory method blank contamination and did not affect any associated field samples.

Trip Blanks

Benzene and carbon disulfide were detected in one of the trip blank samples, TRIP BLANK-REST-03. However, the results for benzene and carbon disulfide in the trip blank were less than 10 times the concentration detected in the associated method blank; therefore, the results for these analytes in the trip blank were probably the result of laboratory method blank contamination and did not affect any associated field samples.

LCS/LCSD

The LCS %R for trans-1,3-dichloropropene (77.2%) was below the laboratory-defined limits (78-124%), in QC batch WG1560699. This compound was not detected in the associated samples, MW-28, MW-52, MW-60, MW-64, MW-66, MW-102, MW-105, MW-109, MW-110, MW-114, MW-115, MW-116, MW-125, and MW-130, and may be biased low.

The LCS %Rs for bromomethane (185%) and trichloroethene (133%) were above the laboratory-defined limits (10-160% and 78-124%, respectively), in QC batch WG1560700. However, since these compounds were not detected in the samples in this QC batch, there is no impact on data usability.

The LCS %R for trichloroethene (126%) was above the laboratory-defined limits (78-124%), in QC batch WG1560784. However, since this compound was not detected in the samples associated with this QC batch, there is no impact on data usability.

The LCS %R for naphthalene (146%) was above the laboratory-defined limits (54-135%), in QC batch WG1560896. However, since this compound was not detected in the samples associated with this QC batch, there is no impact on data usability.

MS/MSDs

MS and/or MS/MSD analyses were performed on the following samples:

- MW-50, MW-52, MW-64, MW-139, KWB-12A, RA-4196: Nitrate-nitrite
- KWB-1A, KWB-7: Cyanide
- MW-52, MW-66, MW-96, MW-126A, EB-REST-05, RA-4798: Chloride, fluoride, sulfate
- MW-29, MW-119: Total metals
- KWB-12A: TPH (GC/FID) low fraction

The %Rs of nitrate-nitrite in the MSD performed on sample MW-52 and the MS performed on sample MW-50 were outside of the laboratory-defined recovery limits (90-110%). However, the concentrations of nitrate-nitrite in the unspiked samples were greater than four times the concentration spiked; thus, the recoveries of nitrate-nitrite were not used to evaluate potential matrix effects.

The %Rs of sulfate in the MS and/or MSDs performed on samples MW-52, MW-126A, and RA-4798 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of sulfate in the unspiked samples were greater than four times the concentration spiked; thus, the recoveries of sulfate were not used to evaluate potential matrix effects.

The %Rs of nitrate-nitrite in the MS and MSD performed on sample RA-4196 89.9%/83.5%), the MSD performed on sample MW-64 (85.2%), and the MS performed on sample KWB-12A (87.6%), and the RPD in the MS/MSD performed on sample MW-64 (22.5%) were outside of the laboratory-defined limits (90-110% and 20%, respectively); therefore, the positive and nondetect results for nitrate-nitrite in all groundwater samples in this laboratory report except MW-50, MW-52, and MW-139 may be uncertain.

The %Rs of cyanide in the MS and MSD performed on sample KWB-7 (87.7%/84.9%) were outside of the laboratory-defined limits (90-110%); therefore, the positive and nondetect results for cyanide in samples MW-28, MW-43, MW-52, MW-60, MW-66, MW-136, DUP-REST-04, DUP-REST-05, KWB-7, KWB-8, KWB-11A, KWB-11B, KWB-12A, and KWB-12B may be biased low.

The %R of chloride in the MSD performed on sample MW-66 (79.9%) was outside of the laboratory-defined limits (80-120%); therefore, the positive results for chloride in all groundwater samples in this laboratory report except MW-52, MW-96, MW-126A, and RA-4798 may be biased low.

The %R of sulfate in the MS performed on sample MW-96 (66.2%) was outside of the laboratory-defined limits (80-120%); therefore, the positive results for sulfate in all groundwater samples in this laboratory report except MW-52, MW-66, MW-126A, and RA-4798 may be biased low.

The %Rs of total calcium and sodium in the MS and MSD performed on sample MW-119 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of total calcium and sodium in the unspiked sample were greater than four times the concentration spiked; thus, the recoveries of total calcium and sodium were not used to evaluate potential matrix effects.

The %Rs of total calcium, manganese, and sodium in the MS and/or MSD performed on sample MW-29 were outside of the laboratory-defined recovery limits (75-125%). However, the concentrations of total calcium, manganese, and sodium in the unspiked sample were greater than four times the concentration spiked; thus, the recoveries of total calcium, manganese, and sodium were not used to evaluate potential matrix effects.

Surrogate Recoveries

The surrogate recovered outside of the laboratory control limits in the 10-fold diluted TPH (GC/FID) high fraction analyses of samples MW-23, MW-62R, and MW-102. However, there is no impact on data usability due to this issue since the samples were diluted ≥10-fold.

Laboratory Duplicates

Laboratory duplicate analysis was performed on the following samples:

- MW-50, MW-117, MW-125, MW-139, KWB-8, KWB-11A, KWB-11B, KWB-12A, DUP-REST-03: Dissolved solids
- MW-60, MW-61, MW-62R, MW-102, KWB-8: Nitrate-nitrite
- MW-64, MW-66, MW-96, MW-113, MW-130, EB-REST-05: Chloride, fluoride, sulfate

The RPD for dissolved solids in the duplicate analysis performed on sample MW-117 (5.53%) exceeded the laboratory-defined control limit (5%). However, this RPD was less than the acceptance criteria used in this evaluation (20%); thus precision was deemed acceptable and no data interpretation issues were noted.

The RPDs for chloride in the duplicate analysis performed on sample EB-REST-05 (200%) and sulfate in the duplicate analysis performed on sample MW-96 (25%) exceeded the laboratory-defined control limit (15%). However, since the results were <5x the RL in the parent and duplicate samples, no data interpretation issues were noted.

Field Duplicates

Samples MW-113/DUP-REST-01, MW-104/DUP-REST-02, MW-134/DUP-REST-03, MW-60/DUP-REST-04, and KWB-12B/DUP-REST-05 were submitted as the field duplicate pairs. All criteria were met in samples MW-134/DUP-REST-03.

The results for total iron were <5x the RL in sample MW-113 and nondetect in the field duplicate, DUP-REST-01; the absolute difference was greater than the RL. Therefore, the positive and nondetect results for total iron in samples MW-113 and DUP-REST-01 may be considered estimated.

The results for carbon disulfide were <5x the RL in the field duplicate pair MW-104 and DUP-REST-02; the absolute difference was greater than the RL. Therefore, the positive results for carbon disulfide in samples MW-104 and DUP-REST-02 may be considered estimated.

The results for nitrate-nitrite were <5x the RL in sample MW-60 and nondetect in the field duplicate, DUP-REST-04; the absolute difference was greater than the RL. Therefore, the positive

and nondetect results for nitrate-nitrite in samples MW-60 and DUP-REST-04 may be considered estimated.

The results for fluoride were <5x the RL in sample MW-60 and >5x the RL in the field duplicate, DUP-REST-04; the absolute difference was greater than the RL. Therefore, the positive results for fluoride in samples MW-60 and DUP-REST-04 may be considered estimated.

The results for cyanide were <5x the RL in sample KWB-12B and >5x the RL in the field duplicate, DUP-REST-05; the absolute difference was greater than the RL. Therefore, the positive results for cyanide in samples KWB-12B and DUP-REST-05 may be considered estimated.

Lab Report L1283074

Sample identifiers cross-referenced to laboratory identifications are presented below.

Sample ID	Lab ID
L1283074-01	RA-4196
L1283074-02	RA-4798
L1283074-03	EB-02
L1283074-04	DUP-02*
L1283074-05	TB-02

*Field duplicate of RA-4798

Data Review Checklist	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?	X		
Any detection in method blanks?	X		
Any detection in equipment blanks?		X	
Any detection in trip blanks?		X	
Any LCS or LCS LCSD %R out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any MS or MSD %R outside of laboratory defined limits?		X	
Any MS/MSD RPD above laboratory defined limits?	X		
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?			X
Any field duplicate data additionally flagged as estimated?	X		
Any analyte analyzed by a nonequivalent method than planned?		X	

Laboratory Method Blanks

Carbon disulfide was detected in the method blank. However, there is no impact on data usability since carbon disulfide was not detected in the associated samples.

MS/MSDs

MS/MSD analyses were performed on sample RA-4798 for VOCs. The RPDs for the majority of VOCs were above the laboratory-defined control limits. With the exception of 1,2-dichloroethane, the RPD issues do not have an impact on data usability since the affected compounds were not detected in sample RA-4798; therefore these RPD results are not summarized. The RPD for 1,2-dichloroethane (29%) was above the laboratory-defined control limit (27%). Therefore, the positive result for 1,2-dichloroethane in sample RA-4798 may be considered estimated.

Field Duplicates

Samples RA-4798/DUP-02 were submitted as the field duplicate pair. The results for methyl tert-butyl ether were <5x the RL in the field duplicate pair; the absolute difference was

greater than the RL. Therefore, the positive results for methyl tert-butyl ether in samples RA-4798 and DUP-02 may be considered estimated.

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Appendix C: Data Validation

Data reported by Pace Analytical in Mount Juliet, Tennessee, for the soil samples collected in September 2020 and the groundwater samples collected in October 2020 were reviewed to ensure that reporting analytical results met the data quality requirements contained in the United States Environmental Protection Agency (USEPA) *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA, January 2017), *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA, January 2017), and the individual methods, as applicable. Quality control (QC) data indicate that measurement data are sufficient to meet method quality objectives, reported data are defensible, and QC mechanisms were generally effective in ensuring measurement data reliability within the expected limits of sampling and analytical error.

The following sections discuss the QC issues identified during the data review for each of the data reports listed below.

September 2020 Data Packages	October 2020 Data Packages
L1267156	L1271213

Analytes that were detected in the both the associated blank and sample were evaluated as follows: Corresponding samples at concentrations within five times the maximum blank concentration for inorganic analytes and within 10 times the maximum blank concentrations for organic analytes may include measurement contributions from the laboratory (for method blanks) and/or field (for equipment and trip blanks).

The following criteria were used in evaluation of the field duplicates: When both results are ≥ five times the reporting limit (RL), relative percent differences (RPDs) must be <30%. When one or both results are < five times the RL, the absolute difference must be < the RL.

The following criteria were used in evaluation of laboratory duplicates: When both results are ≥ five times the RL, RPDs must be <20%.

Lab Report L1267156

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1267156-01	MW-145 (17)
L1267156-02	MW-146 (18)
L1267156-03	DUP#1
L1267156-04	MW-147 (20)
L1267156-05	MW-148 (28)

Data Review Checklist	Yes	No	Not applicable

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Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?	X		
Any detection in method blanks?	X		
Any detection in equipment blanks?			X
Any detection in trip blanks?			X
Any LCS or LCS duplicates (LCSD) percent recoveries (%R) out of laboratory defined limits?		X	
Any LCS/LCSD RPD above laboratory defined limits?		X	
Any matrix spike (MS) or MS duplicate (MSD) %R outside of laboratory defined limits?		X	
Any MS/MSD RPD above laboratory defined limits?		X	
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?		X	
Any field duplicate data additionally flagged as estimated?		X	
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

The laboratory noted that the TPH (GC/FID) low fraction data for all soil samples were reported at a 25-fold dilution. The laboratory did not include a sample narrative explaining the dilutions or if the dilutions were due to sample preparation. The results for TPH (GC/FID) low fraction were nondetect in all soil samples.

Laboratory Method Blanks

The following analyte was detected in the method blank: TPH (GC/FID) low fraction. This compound was nondetect in all soil samples, therefore, there was no effect on the reported sample data.

MS/MSDs

MS/MSD analyses were performed on the following samples:

- MW-145 (17): TPH (GC/FID) low fraction, C_{10}-C_{28} diesel range
- MW-147 (20): TPH (GC/FID) low fraction

All criteria were met.

Laboratory Duplicates

Laboratory duplicate analyses were performed on the following samples:

- MW-145 (17): Total solids

All criteria were met.

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Field Duplicates

The calculated relative percent differences (RPDs) between positive detections in field duplicate pair MW-146 (18)/DUP#1 met the acceptance limits.

Lab Report L1271213

Sample identifiers cross-referenced to laboratory identifications are presented below.

Lab ID	Sample ID
L1271213-01	MW-145
L1271213-02	MW-146
L1271213-03	MW-147
L1271213-04	MW-148
L1271213-05	Dup-01
L1271213-06	EB-01

Items	Yes	No	Not applicable
Did all samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X		
All samples within holding times?	X		
Any detection in method blanks?		X	
Any detection in equipment blanks?	X		
Any detection in trip blanks?			X
Any LCS/LCSD %R out of laboratory defined limits?	X		
Any LCS/LCSD RPD above laboratory defined limits?	X		
Any MS/MSD %R outside of laboratory defined limits?			X
Any MS/MSD RPD above laboratory defined limits?			X
Any surrogate %R outside of laboratory defined limits?		X	
Any laboratory duplicate RPD above laboratory defined limits?			X
Any field duplicate data additionally flagged as estimated?		X	
Any analyte analyzed by a nonequivalent method than planned?		X	

Other

Select results were reported below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) by the laboratory.

Equipment Blanks

The following compound was detected in the equipment blank sample, EB-01: benzene. However, since benzene was not detected in the groundwater samples, no data interpretation issues were noted.

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LCS

The LCS %R for acetone (210%) was above the laboratory-defined limits (19-160%), in QC batch WG1559818. However, since acetone was not detected in the samples in this QC batch, no data interpretation issues were noted.

The LCSD %R for tetrachloroethene (136%) was above the laboratory-defined limits (72-132%), in QC batch WG1560531. However, since tetrachloroethene was not detected in the sample in this QC batch, no data interpretation issues were noted.

The LCS/LCSD RPD for acetone (31.6%) was above the laboratory-defined limit (27%) in QC batch WG1560531. However, since acetone was not detected in the sample in this QC batch, no data interpretation issues were noted.

Field Duplicates

The calculated RPD between positive detections in field duplicate pair MW-145/Dup-01 met the acceptance limits.

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Appendix F

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Appendix F1 - Summary of Production from Recovery Trenches and Wells

2020 Annual Groundwater Monitoring Report

HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, New Mexico

Recovery Well	Recovery Method	Volume of Water Recovered [1] (gallons)					Volume of PSH Recovered [1] (gallons)				
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total 2020	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total 2020
RW-1R	Automated Pump	3,739	39,369	18,302	0	61,410	0	0	33	13,475	13,508
RW-2R	Automated Pump	0	106,804	75,191	2	181,997	0	0	7	0	7
RW-4R	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-5R	Automated Pump	112,972	104,092	12,467	32,201	261,732	997	3,653	7,536	95	12,281
RW-6R	Automated Pump	726,371	658,319	234,015	303,041	1,921,746	456	1	3,213	8,882	12,552
RW-7R	Automated Pump	0	4	101,842	573,056	674,902	0	0	84	17,606	17,690
RW-8R	Automated Pump	0	3,531	30,870	203,313	237,714	0	0	1,979	11,921	13,900
RW-12R	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-13R	Automated Pump	0	96,257	73,699	203,553	373,509	0	1,759	417	2,846	5,022
RW-14R	Automated Pump	85,978	326,424	79,757	109,335	601,494	25,583	30,953	1,689	57,614	115,839
RW-15	Automated Pump	0	0	0	0	0	0	0	0	0	0
RW-19	Automated Pump	28,386	1	2	1	28,390	0	0	0	0	0
RW-20	Automated Pump	7,645	1,690	19,333	3,979	32,647	0	0	0	0	0
RW-22	Automated Pump	2	3	7	3	15	9,425	6,732	4,058	13,084	33,299
TOTAL VOLUME RECOVERED:		965,093	1,336,494	645,485	1,428,484	**4,375,556**	36,461	43,098	19,016	125,523	**224,098**

[1] Volumes of recovered water and PSH are based on automated system readings, rounded to the nearest gallon

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Automated Fluid Readings - Skid Area T-9012

Date	Total Fluids Readings				PSH Readings				Tank Reading
	RW-1R	RW-2R	RW-7R	RW-8R	RW-1R	RW-2R	RW-7R	RW-8R	T-9012
12/31/2019	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,090
1/7/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,090
1/14/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,090
1/21/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,091
1/28/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,464
2/4/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,465
2/11/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,468
2/18/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,656
2/25/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	128,843
3/3/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	129,037
3/10/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	129,753
3/17/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	130,372
3/24/2020	441,376	1,158,842	214,326	3,368,900	3	21,076	1	74,715	130,663
3/31/2020	445,115	1,158,842	214,326	3,368,900	3	21,076	1	74,715	130,670
1Q Totals:	**3,739**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2,580**
4/7/2020	445,532	1,158,842	214,326	3,368,900	3	21,076	1	74,715	130,790
4/14/2020	445,532	1,158,842	214,326	3,368,900	3	21,076	1	74,715	130,797
4/21/2020	445,632	1,177,629	214,326	3,368,900	3	21,076	1	74,715	130,799
4/28/2020	445,632	1,199,068	214,326	3,368,900	3	21,076	1	74,715	130,802
5/5/2020	445,651	1,218,106	214,326	3,368,900	3	21,076	1	74,715	130,803
5/12/2020	445,651	1,234,789	214,326	3,368,900	3	21,076	1	74,715	130,805
5/19/2020	445,658	1,250,230	214,330	3,369,005	3	21,076	1	74,715	130,806
5/26/2020	455,310	1,262,061	214,330	3,372,431	3	21,076	1	74,715	130,807
6/2/2020	460,121	1,263,856	214,330	3,372,431	3	21,076	1	74,715	130,807
6/9/2020	466,571	1,264,529	214,330	3,372,431	3	21,076	1	74,715	130,807
6/16/2020	466,571	1,264,529	214,330	3,372,431	3	21,076	1	74,715	130,807
6/23/2020	478,251	1,264,851	214,330	3,372,431	3	21,076	1	74,715	130,808
6/30/2020	484,484	1,265,646	214,330	3,372,431	3	21,076	1	74,715	130,808
2Q Totals:	**39,369**	**106,804**	**4**	**3,531**	**-**	**-**	**-**	**-**	**138**
7/7/2020	486,273	1,266,003	214,330	3,372,431	3	21,076	1	74,715	130,808
7/14/2020	486,273	1,266,098	214,330	3,372,431	3	21,076	1	74,715	130,811
7/21/2020	486,273	1,273,472	214,330	3,372,431	3	21,076	1	74,715	130,811
7/28/2020	486,273	1,291,515	214,330	3,372,431	3	21,076	1	74,715	130,811
8/4/2020	486,273	1,307,385	214,330	3,372,431	3	21,076	1	74,716	130,811
8/11/2020	486,273	1,307,385	214,330	3,372,431	4	21,076	1	74,716	130,811
8/18/2020	486,273	1,307,385	214,330	3,372,431	4	21,076	1	74,716	130,811
8/25/2020	486,273	1,307,385	214,330	3,372,431	4	21,076	1	74,716	130,816
8/31/2020	486,273	1,307,385	214,330	3,372,431	4	21,076	1	74,716	130,816
9/7/2020	500,252	1,322,423	214,330	3,372,431	9	21,076	1	74,716	130,816
9/14/2020	502,786	1,335,104	214,330	3,391,148	15	21,076	1	75,692	130,816
9/21/2020	502,786	1,340,837	263,604	3,403,301	29	21,077	3	76,171	131,538
9/28/2020	502,786	1,340,837	316,172	3,403,301	36	21,083	85	76,694	132,422
3Q Totals:	**18,302**	**75,191**	**101,842**	**30,870**	**33**	**7**	**84**	**1,979**	**1,614**
10/5/2020	502,786	1,340,837	367,511	3,403,301	36	21,083	85	76,694	132,422
10/12/2020	502,786	1,340,837	470,526	3,422,054	1,061	21,083	1,844	78,063	138,443
10/19/2020	502,786	1,340,837	519,269	3,448,685	1,723	21,083	2,628	78,643	141,194
10/26/2020	502,786	1,340,837	522,530	3,472,573	3,667	21,083	4,853	80,112	155,421
11/2/2020	502,786	1,340,838	573,778	3,497,719	3,818	21,083	5,039	80,232	156,500
11/9/2020	502,786	1,340,838	624,333	3,520,353	5,064	21,083	6,305	81,328	163,618
11/16/2020	502,786	1,340,838	673,660	3,539,847	7,632	21,083	9,372	83,403	173,299
11/23/2020	502,786	1,340,838	722,909	3,558,999	9,967	21,083	12,224	85,377	189,648
11/30/2020	502,786	1,340,838	771,747	3,577,616	10,292	21,083	15,118	87,259	202,144
12/7/2020	502,786	1,340,838	822,113	3,591,273	11,270	21,083	16,555	88,174	206,069
12/14/2020	502,786	1,340,839	889,228	3,606,614	13,511	21,083	17,691	88,615	209,618
12/16/2020	502,786	1,340,839	889,228	3,606,614	13,511	21,083	17,691	88,615	209,618
4Q Totals:	**0**	**2**	**573,056**	**203,313**	**13,475**	**0**	**17,606**	**11,921**	**77,196**

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Automated Fluid Readings - Skid Area T-9003

Date	Total Fluids Readings		PSH Readings		Tank Reading
	RW-4R	RW-6R	RW-4R	RW-6R	T-9003
12/31/2019	17,256	776,176	1	9,639	16,858
1/7/2020	17,256	814,943	1	9,639	16,879
1/14/2020	17,256	860,399	1	9,767	17,101
1/21/2020	17,256	909,672	1	9,955	17,280
1/28/2020	17,256	972,320	1	10,041	17,479
2/4/2020	17,256	1,023,844	1	10,041	17,484
2/11/2020	17,256	1,088,846	1	10,044	17,492
2/18/2020	17,256	1,153,545	1	10,095	17,525
2/25/2020	17,256	1,218,479	1	10,095	17,525
3/3/2020	17,256	1,254,651	1	10,095	17,531
3/10/2020	17,256	1,317,658	1	10,095	17,531
3/17/2020	17,256	1,384,688	1	10,095	17,531
3/24/2020	17,256	1,435,671	1	10,095	17,531
3/31/2020	17,256	1,502,547	1	10,095	17,531
1Q Totals:	**-**	**726,371**	**-**	**456**	**673**
4/7/2020	17,256	1,553,927	1	10,095	17,531
4/14/2020	17,256	1,612,685	1	10,095	17,531
4/21/2020	17,256	1,671,708	1	10,095	17,531
4/28/2020	17,256	1,729,843	1	10,095	17,531
5/5/2020	17,256	1,787,355	1	10,095	17,531
5/12/2020	17,256	1,843,711	1	10,095	17,531
5/19/2020	17,256	1,898,974	1	10,095	17,531
5/26/2020	17,256	1,968,930	1	10,096	17,531
6/2/2020	17,256	2,005,618	1	10,096	17,531
6/9/2020	17,256	2,055,616	1	10,096	17,531
6/16/2020	17,256	2,055,616	1	10,096	17,531
6/23/2020	17,256	2,152,727	1	10,096	17,531
6/30/2020	17,256	2,160,866	1	10,096	17,531
2Q Totals:	**-**	**658,319**	**-**	**1**	**-**
7/7/2020	17,256	2,167,387	1	10,096	17,531
7/14/2020	17,256	2,180,866	1	10,096	17,531
7/21/2020	17,256	2,180,866	1	10,096	17,531
7/28/2020	17,256	2,180,866	1	10,096	17,531
8/4/2020	17,256	2,180,866	1	10,096	17,531
8/11/2020	17,256	2,180,866	1	10,096	17,531
8/18/2020	17,256	2,180,866	1	10,096	17,531
8/25/2020	17,256	2,180,866	1	10,096	17,531
8/31/2020	17,256	2,208,009	1	10,096	17,531
9/7/2020	17,256	2,264,988	1	10,096	17,531
9/14/2020	17,256	2,306,667	1	10,096	17,531
9/21/2020	17,256	2,354,539	1	11,005	18,611
9/28/2020	17,256	2,394,881	1	13,309	20,977
3Q Totals:	**-**	**234,015**	**-**	**3,213**	**3,446**
10/5/2020	17,256	2,417,240	1	16,127	24,134
10/12/2020	17,256	2,423,424	1	17,247	25,247
10/19/2020	17,256	2,423,424	1	17,247	25,247
10/26/2020	17,256	2,458,734	1	17,452	25,315
11/2/2020	17,256	2,502,360	1	17,425	25,315
11/9/2020	17,256	2,537,084	1	18,563	26,634
11/16/2020	17,256	2,557,459	1	18,951	27,008
11/23/2020	17,256	2,589,987	1	19,789	28,018
11/30/2020	17,256	2,628,151	1	20,538	28,820
12/7/2020	17,256	2,660,039	1	21,225	29,481
12/14/2020	17,256	2,697,922	1	22,191	30,400
12/16/2020	17,256	2,697,922	1	22,191	30,400
4Q Totals:	**-**	**303,041**	**-**	**8,882**	**9,423**

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Automated Fluid Readings - Skid Area T-9021

Date	Total Fluids Readings			PSH Readings			Tank Reading
	RW-5R	RW-15	RW-19	RW-5R	RW-15	RW-19	T-9021
12/31/2019	350,213	2,559	362,644	16,497	13,070	10,505	403,794
1/7/2020	350,213	2,559	362,644	16,498	13,070	10,505	403,797
1/14/2020	357,536	2,559	362,644	16,502	13,070	10,505	403,857
1/21/2020	367,186	2,559	362,644	16,505	13,070	10,505	404,170
1/28/2020	376,673	2,559	362,644	16,508	13,070	10,505	405,108
2/4/2020	386,046	2,559	362,644	16,511	13,070	10,505	405,300
2/11/2020	394,822	2,559	362,644	16,517	13,070	10,505	405,301
2/18/2020	403,653	2,559	362,644	16,521	13,070	10,505	406,140
2/25/2020	412,988	2,559	371,832	16,524	13,070	10,505	406,331
3/3/2020	421,888	2,559	376,279	17,019	13,070	10,505	408,169
3/10/2020	430,916	2,559	384,762	17,491	13,070	10,505	410,040
3/17/2020	442,712	2,559	391,030	17,494	13,070	10,505	414,739
3/24/2020	451,606	2,559	391,030	17,494	13,070	10,505	418,499
3/31/2020	463,185	2,559	391,030	17,494	13,070	10,505	422,785
1Q Totals:	**112,972**	**-**	**28,386**	**997**	**-**	**-**	**18,991**
4/7/2020	470,128	2,559	391,030	19,104	13,070	10,505	425,810
4/14/2020	479,701	2,559	391,030	19,107	13,070	10,505	427,887
4/21/2020	489,010	2,559	391,031	19,107	13,070	10,505	430,361
4/28/2020	497,164	2,559	391,031	20,005	13,070	10,505	432,522
5/5/2020	505,721	2,559	391,031	20,232	13,070	10,505	435,741
5/12/2020	514,218	2,559	391,031	20,232	13,070	10,505	438,287
5/19/2020	521,780	2,559	391,031	21,093	13,070	10,505	439,364
5/26/2020	532,320	2,559	391,031	21,098	13,070	10,505	439,945
6/2/2020	537,799	2,559	391,031	21,145	13,070	10,505	440,317
6/9/2020	545,419	2,559	391,031	21,147	13,070	10,505	442,189
6/16/2020	545,419	2,559	391,031	21,147	13,070	10,505	442,189
6/23/2020	560,148	2,559	391,031	21,147	13,070	10,505	444,179
6/30/2020	567,277	2,559	391,031	21,147	13,070	10,505	446,362
2Q Totals:	**104,092**	**-**	**1**	**3,653**	**-**	**-**	**23,577**
7/7/2020	571,247	2,559	391,031	22,816	13,070	10,505	448,383
7/14/2020	571,247	2,559	391,031	25,290	13,070	10,505	450,889
7/21/2020	571,247	2,559	391,031	26,151	13,070	10,505	451,955
7/28/2020	571,247	2,559	391,031	26,151	13,070	10,505	451,955
8/4/2020	571,247	2,559	391,031	26,151	13,070	10,505	451,955
8/11/2020	571,247	2,559	391,031	26,151	13,070	10,505	451,956
8/18/2020	571,247	2,559	391,031	28,656	13,070	10,505	454,336
8/25/2020	571,247	2,559	391,031	28,659	13,070	10,505	454,336
8/31/2020	571,247	2,559	391,031	28,659	13,070	10,505	454,336
9/7/2020	571,322	2,559	391,031	28,659	13,070	10,505	456,018
9/14/2020	575,717	2,559	391,031	28,659	13,070	10,505	457,178
9/21/2020	579,744	2,559	391,033	28,673	13,070	10,505	458,703
9/28/2020	579,744	2,559	391,033	28,683	13,070	10,505	461,387
3Q Totals:	**12,467**	**-**	**2**	**7,536**	**-**	**-**	**15,025**
10/5/2020	579,744	2,559	391,033	28,692	13,070	10,505	463,071
10/12/2020	579,744	2,559	391,033	28,696	13,070	10,505	482,162
10/19/2020	579,744	2,559	391,033	28,708	13,070	10,505	488,107
10/26/2020	583,056	2,559	391,033	28,718	13,070	10,505	502,366
11/2/2020	587,345	2,559	391,034	28,719	13,070	10,505	503,743
11/9/2020	591,662	2,559	391,034	28,731	13,070	10,505	510,170
11/16/2020	595,918	2,559	391,034	28,742	13,070	10,505	520,447
11/23/2020	600,524	2,559	391,304	28,749	13,070	10,505	527,111
11/30/2020	605,309	2,559	391,034	28,753	13,070	10,505	531,953
12/7/2020	608,805	2,559	391,034	28,769	13,070	10,505	534,584
12/14/2020	611,945	2,559	391,034	28,778	13,070	10,505	545,594
12/16/2020	611,945	2,559	391,034	28,778	13,070	10,505	545,594
4Q Totals:	**32,201**	**-**	**1**	**95**	**-**	**-**	**84,207**

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Automated Fluid Readings - Skid Area T-9020

Date	Total Fluids Readings					PSH Readings					Tank Reading
	RW-12R	RW-13R	RW-14R	RW-20	RW-22	RW-12R	RW-13R	RW-14R	RW-20	RW-22	T-9020
12/31/2019	234	1,485,834	2,337,301	1,734,659	2,413,241	4,755	43,358	167,320	48,816	50,503	230,973
1/7/2020	234	1,485,834	2,337,301	1,742,033	2,413,241	4,755	43,358	167,547	48,816	50,503	230,997
1/14/2020	234	1,485,834	2,337,354	1,742,035	2,413,241	4,755	43,358	167,547	48,816	50,518	231,004
1/21/2020	234	1,485,834	2,337,354	1,742,035	2,413,241	4,755	43,358	167,547	48,816	50,587	231,143
1/28/2020	234	1,485,834	2,337,397	1,742,035	2,413,241	4,755	43,356	167,547	48,816	51,129	231,681
2/4/2020	234	1,485,834	2,337,397	1,742,035	2,413,242	4,755	43,358	167,547	48,816	51,220	231,881
2/11/2020	234	1,485,834	2,337,397	1,742,035	2,413,242	4,755	43,358	167,547	48,816	51,335	231,885
2/18/2020	234	1,485,834	2,337,403	1,742,035	2,413,243	4,755	43,358	169,292	48,816	51,462	232,535
2/25/2020	234	1,485,834	2,337,403	1,742,035	2,413,243	4,755	43,358	169,616	48,816	51,654	232,677
3/3/2020	234	1,485,834	2,338,383	1,742,035	2,413,243	4,755	43,358	173,042	48,816	51,868	234,105
3/10/2020	234	1,485,834	2,348,193	1,742,035	2,413,243	4,755	43,358	175,707	48,816	52,201	235,063
3/17/2020	234	1,485,834	2,373,835	1,742,035	2,413,243	4,755	43,358	183,241	48,816	54,449	239,762
3/24/2020	234	1,485,834	2,394,361	1,742,035	2,413,243	4,755	43,358	187,049	48,816	56,964	242,834
3/31/2020	234	1,485,834	2,423,279	1,742,304	2,413,243	4,755	43,358	192,903	48,816	59,928	248,803
1Q Totals:	**-**	**-**	**85,978**	**7,645**	**2**	**-**	**-**	**25,583**	**-**	**9,425**	**17,830**
4/7/2020	234	1,485,834	2,446,318	1,743,974	2,413,243	4,755	43,358	197,736	48,816	59,942	250,450
4/14/2020	234	1,485,834	2,470,744	1,743,994	2,413,245	4,755	43,358	200,843	48,816	60,601	252,788
4/21/2020	234	1,485,834	2,490,251	1,743,994	2,413,245	4,755	43,358	205,317	48,816	61,624	255,086
4/28/2020	234	1,485,834	2,504,318	1,743,994	2,413,245	4,755	43,358	206,032	48,816	62,778	256,196
5/5/2020	234	1,485,834	2,528,066	1,743,994	2,413,245	4,755	43,358	209,994	48,816	63,967	258,989
5/12/2020	234	1,485,834	2,582,331	1,743,994	2,413,245	4,755	43,358	213,634	48,816	64,523	261,862
5/19/2020	234	1,498,335	2,656,286	1,743,994	2,413,246	4,755	43,488	213,917	48,816	64,524	262,095
5/26/2020	234	1,499,596	2,749,703	1,743,994	2,413,246	4,755	43,488	215,058	48,816	64,569	262,699
6/2/2020	234	1,513,873	2,749,703	1,743,994	2,413,246	4,755	43,488	215,798	48,816	64,572	262,992
6/9/2020	234	1,534,793	2,749,703	1,743,994	2,413,246	4,755	43,860	217,712	48,816	65,429	265,070
6/16/2020	234	1,534,793	2,749,703	1,743,994	2,413,246	4,755	43,860	217,712	48,816	65,429	265,070
6/23/2020	234	1,574,307	2,749,703	1,743,994	2,413,246	4,755	43,860	221,359	48,816	65,530	275,281
6/30/2020	234	1,582,091	2,749,703	1,743,994	2,413,246	4,755	45,117	223,856	48,816	66,660	280,811
2Q Totals:	**-**	**96,257**	**326,424**	**1,690**	**3**	**-**	**1,759**	**30,953**	**-**	**6,732**	**32,008**
7/7/2020	234	1,607,757	2,749,703	1,743,994	2,413,246	4,755	45,501	223,856	48,816	66,660	280,942
7/14/2020	234	1,608,073	2,749,704	1,745,358	2,413,246	4,755	45,534	223,856	48,816	66,660	280,942
7/21/2020	234	1,608,560	2,749,704	1,755,590	2,413,246	4,755	45,534	223,856	48,816	66,660	280,942
7/28/2020	234	1,608,560	2,749,704	1,760,768	2,413,246	4,755	45,534	223,856	48,816	66,660	280,942
8/4/2020	234	1,608,560	2,749,704	1,760,768	2,413,246	4,755	45,534	223,856	48,816	66,660	280,942
8/11/2020	234	1,608,560	2,749,704	1,760,768	2,413,247	4,755	45,534	223,856	48,816	66,600	280,942
8/18/2020	234	1,608,560	2,749,704	1,760,768	2,413,247	4,755	45,534	223,856	48,816	66,600	280,942
8/25/2020	234	1,608,560	2,749,704	1,760,768	2,413,247	4,755	45,534	223,856	48,816	66,660	280,942
8/31/2020	234	1,620,405	2,749,704	1,760,768	2,413,247	4,755	45,534	223,856	48,816	66,660	281,009
9/7/2020	234	1,620,405	2,760,845	1,760,768	2,413,250	4,755	45,534	224,334	48,816	68,414	282,840
9/14/2020	234	1,620,406	2,764,485	1,760,851	2,413,250	4,755	45,534	224,343	48,816	69,593	283,964
9/21/2020	234	1,621,365	2,804,404	1,763,327	2,413,253	4,755	45,534	224,350	48,816	70,308	284,651
9/28/2020	234	1,655,790	2,829,460	1,763,327	2,413,253	4,755	45,534	225,545	48,816	70,718	286,466
3Q Totals:	**-**	**73,699**	**79,757**	**19,333**	**7**	**-**	**417**	**1,689**	**-**	**4,058**	**5,655**
10/5/2020	234	1,731,750	2,829,460	1,763,327	2,413,253	4,755	45,534	227,634	48,816	70,825	288,323
10/12/2020	234	1,742,072	2,867,045	1,763,327	2,413,255	4,755	45,534	248,782	48,816	72,508	325,148
10/19/2020	234	1,742,072	2,907,416	1,763,327	2,413,255	4,755	45,536	256,602	48,816	74,039	339,657
10/26/2020	234	1,786,530	2,936,700	1,763,327	2,413,255	4,755	45,830	273,165	48,816	75,717	371,142
11/2/2020	234	1,822,595	2,938,975	1,763,327	2,413,255	4,755	45,839	273,743	48,816	76,232	372,831
11/9/2020	234	1,845,713	2,938,975	1,763,327	2,413,255	4,755	46,133	277,957	48,816	76,955	376,099
11/16/2020	234	1,852,403	2,938,975	1,763,327	2,413,255	4,755	47,556	282,636	48,816	78,108	380,941
11/23/2020	234	1,853,337	2,938,975	1,767,306	2,413,256	4,755	48,210	283,100	48,816	80,032	382,794
11/30/2020	234	1,853,337	2,938,975	1,767,306	2,413,256	4,755	48,210	283,157	48,816	82,319	384,216
12/7/2020	234	1,853,337	2,938,975	1,767,306	2,413,256	4,755	48,210	283,159	48,816	83,577	384,742
12/14/2020	234	1,859,343	2,938,975	1,767,306	2,413,256	4,755	48,380	283,159	48,816	83,802	384,963
12/16/2020	234	1,859,343	2,938,795	1,767,306	2,413,256	4,755	48,380	283,159	48,816	83,802	384,963
4Q Totals:	**-**	**203,553**	**109,335**	**3,979**	**3**	**-**	**2,846**	**57,614**	**-**	**13,084**	**98,497**

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Appendix F.2 - Recovery System Gauging Data
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, NM

Well	RW-1R							RW-2R							RW-4R						
Date	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)
12/31/19	0	10.70	Out	0.00	3377.03	--	3366.33	0.00	12.33	Out	0.00	3378.17	--	3365.84	0	14.32	Out	0.00	3374.86	--	3360.54
1/6/20	0	10.90	Out	0.00	3377.03	--	3366.13	0.00	12.33	Out	0.00	3378.17	--	3365.84	0	14.30	Out	0.00	3374.86	--	3360.56
1/13/20	0	10.95	Out	0.00	3377.03	--	3366.08	0.00	12.35	Out	0.00	3378.17	--	3365.82	0	14.38	Out	0.00	3374.86	--	3360.48
1/20/20	0	11.20	Out	0.00	3377.03	--	3365.83	0.00	12.57	Out	0.00	3378.17	--	3365.60	0	15.52	Out	0.00	3374.86	--	3359.34
1/27/20	0	10.90	Out	0.00	3377.03	--	3366.13	0.00	12.40	Out	0.00	3378.17	--	3365.77	0	14.49	Out	0.00	3374.86	--	3360.37
2/3/20	0	10.90	Out	0.00	3377.03	--	3366.13	0.00	12.28	Out	0.00	3378.17	--	3365.89	0	14.52	Out	0.00	3374.86	--	3360.34
2/10/20	0	11.15	Out	0.00	3377.03	--	3365.88	0.00	12.53	Out	0.00	3378.17	--	3365.64	0	14.75	Out	0.00	3374.86	--	3360.11
2/17/20	0	11.05	Out	0.00	3377.03	--	3365.98	0.00	12.45	Out	0.00	3378.17	--	3365.72	0	14.76	Out	0.00	3374.86	--	3360.10
2/24/20	0	11.14	Out	0.00	3377.03	--	3365.89	0.00	12.50	Out	0.00	3378.17	--	3365.67	0	14.80	Out	0.00	3374.86	--	3360.06
3/2/20	0	11.15	Out	0.00	3377.03	--	3365.88	0.00	12.55	Out	0.00	3378.17	--	3365.62	0	14.50	Out	0.00	3374.86	--	3360.36
3/9/20	0	10.10	Out	0.00	3377.03	--	3366.93	0.00	11.74	Out	0.00	3378.17	--	3366.43	0	14.55	Out	0.00	3374.86	--	3360.31
3/17/20	10.05	10.45	Out	0.40	3377.03	3366.98	3366.58	0.00	11.55	Out	0.00	3378.17	--	3366.62	0	14.35	Out	0.00	3374.86	--	3360.51
3/23/20	9.90	10.25	Out	0.35	3377.03	3367.13	3366.78	0.00	11.38	Out	0.00	3378.17	--	3366.79	0	14.30	Out	0.00	3374.86	--	3360.56
3/31/20	10.20	10.55	Out	0.35	3377.03	3366.83	3366.48	0.00	11.65	Out	0.00	3378.17	--	3366.52	0	14.40	Out	0.00	3374.86	--	3360.46
4/6/20	10.30	10.60	Out	0.30	3377.03	3366.73	3366.43	0.00	11.70	Out	0.00	3378.17	--	3366.47	0	14.40	Out	0.00	3374.86	--	3360.46
4/13/20	10.55	10.95	Out	0.40	3377.03	3366.48	3366.08	0.00	11.90	Out	0.00	3378.17	--	3366.27	0	14.60	Out	0.00	3374.86	--	3360.26
4/20/20	11.00	11.60	Out	0.60	3377.03	3366.03	3365.43	0.00	14.99	Out	0.00	3378.17	--	3363.18	0	14.60	Out	0.00	3374.86	--	3360.26
4/27/20	11.25	11.90	Out	0.65	3377.03	3365.78	3365.13	0.00	15.00	Out	0.00	3378.17	--	3363.17	0	14.69	Out	0.00	3374.86	--	3360.17
5/4/20	11.40	12.10	Out	0.70	3377.03	3365.63	3364.93	0.00	15.05	Out	0.00	3378.17	--	3363.12	0	14.75	Out	0.00	3374.86	--	3360.11
5/11/20	11.55	12.25	Out	0.70	3377.03	3365.48	3364.78	0.00	15.10	Out	0.00	3378.17	--	3363.07	0	14.85	Out	0.00	3374.86	--	3360.01
5/18/20	11.75	12.35	Out	0.60	3377.03	3365.28	3364.68	15.05	15.20	Out	0.15	3378.17	3363.12	3362.97	0	14.90	Out	0.00	3374.86	--	3359.96
5/27/20	14.50	15.10	Out	0.60	3377.03	3362.53	3361.93	15.05	15.50	Out	0.45	3378.17	3363.12	3362.67	0	14.95	Out	0.00	3374.86	--	3359.91
6/1/20	14.55	15.20	Out	0.65	3377.03	3362.48	3361.83	15.05	15.29	Out	0.24	3378.17	3363.12	3362.88	0	15.05	Out	0.00	3374.86	--	3359.81
6/8/20	14.40	15.30	Out	0.90	3377.03	3362.63	3361.73	15.05	15.35	Out	0.30	3378.17	3363.12	3362.82	0	15.05	Out	0.00	3374.86	--	3359.81
6/22/20	14.40	15.10	Out	0.70	3377.03	3362.63	3361.93	15.00	15.25	Out	0.25	3378.17	3363.17	3362.92	0	15.20	Out	0.00	3374.86	--	3359.66
6/29/20	14.50	15.35	Out	0.85	3377.03	3362.53	3361.68	15.00	16.45	Out	1.45	3378.17	3363.17	3361.72	0	15.25	Out	0.00	3374.86	--	3359.61
7/7/20	14.60	15.70	Out	1.10	3377.03	3362.43	3361.33	14.80	16.80	Out	2.00	3378.17	3363.37	3361.37	0	15.30	Out	0.00	3374.86	--	3359.56
7/13/20	16.70	17.00	Out	0.30	3377.03	3360.33	3360.03	14.70	17.30	Out	2.60	3378.17	3363.47	3360.87	0	14.90	Out	0.00	3374.86	--	3359.96
7/20/20	14.6	15.80	Out	1.20	3378.03	3363.43	3362.23	15.00	17.00	Out	2.00	3379.17	3364.17	3362.17	0	14.85	Out	0.00	3375.86	--	3361.01
7/27/20	14.5	17.20	Out	2.70	3379.03	3364.53	3361.83	15.65	21.90	Out	6.25	3380.17	3364.52	3358.27	0	15.00	Out	0.00	3376.86	--	3361.86
8/3/20	14.63	15.60	14	0.97	3379.03	3364.40	3363.43	15.50	22.50	Out	7.00	3380.17	3364.67	3357.67	0	14.90	Out	0.00	3376.86	--	3361.96
8/10/20	14.55	15.35	14	0.80	3379.03	3364.48	3363.68	14.25	14.55	Out	0.30	3380.17	3365.92	3365.62	0	14.90	Out	0.00	3376.86	--	3361.96
8/18/20	14.65	15.30	14	0.65	3380.03	3365.38	3364.73	14.26	14.55	Out	0.29	3381.17	3366.91	3366.62	0	14.85	Out	0.00	3377.86	--	3363.01
8/24/20	14.65	15.35	14	0.70	3381.03	3366.38	3365.68	14.32	14.60	Out	0.28	3382.17	3367.85	3367.57	0	14.80	Out	0.00	3378.86	--	3364.06
8/31/20	14.7	15.20	14	0.50	3381.03	3366.33	3365.83	14.50	14.90	Out	0.40	3382.17	3367.67	3367.27	0	15.00	Out	0.00	3378.86	--	3363.86
9/8/20	17.65	18.55	14	0.90	3381.03	3363.38	3362.48	18.70	25.40	Out	6.70	3382.17	3363.47	3356.77	0	14.99	Out	0.00	3378.86	--	3363.87
9/14/20	17.65	18.35	14	0.70	3381.03	3363.38	3362.68	16.15	27.25	Out	11.10	3382.17	3366.02	3354.92	0	15.35	Out	0.00	3378.86	--	3363.51
9/21/20	17.7	18.65	17	0.95	3382.03	3364.33	3363.38	15.50	16.40	20	0.90	3383.17	3367.67	3366.77	0	15.40	Out	0.00	3379.86	--	3364.46
9/28/20	17.65	18.45	17	0.80	3382.03	3364.38	3363.58	15.60	17.75	20	2.15	3383.17	3367.57	3365.42	0	15.60	Out	0.00	3379.86	--	3364.26
10/5/20	17.48	20.75	17	3.27	3383.03	3365.55	3362.28	15.70	16.87	20	1.17	3384.17	3368.47	3367.30	0	15.55	Out	0.00	3380.86	--	3365.31
10/12/20	17.60	18.05	17	0.45	3384.03	3366.43	3365.98	15.80	17.75	20	1.95	3385.17	3369.37	3367.42	0	15.60	Out	0.00	3381.86	--	3366.26
10/19/20	17.90	18.25	17	0.35	3384.03	3366.13	3365.78	15.85	17.50	20	1.65	3385.17	3369.32	3367.67	0	15.60	Out	0.00	3381.86	--	3366.26
10/26/20	18.00	18.50	17	0.50	3384.03	3366.03	3365.53	16.05	17.90	20	1.85	3385.17	3369.12	3367.27	0	15.60	Out	0.00	3381.86	--	3366.26
11/2/20	17.50	21.00	17	3.50	3384.03	3366.53	3363.03	16.05	17.90	20	1.85	3385.17	3369.12	3367.27	0	15.90	Out	0.00	3381.86	--	3365.96
11/9/20	18.00	18.80	17	0.80	3384.03	3366.03	3365.23	16.00	17.70	20	1.70	3385.17	3369.17	3367.47	0	16.00	Out	0.00	3381.86	--	3365.86
11/16/20	18.00	18.30	17	0.30	3384.03	3366.03	3365.73	16.15	18.30	20	2.15	3385.17	3369.02	3366.87	0	16.10	Out	0.00	3381.86	--	3365.76
11/23/20	17.90	18.10	17	0.20	3384.03	3366.13	3365.93	16.25	18.25	20	2.00	3385.17	3368.92	3366.92	0	16.00	Out	0.00	3381.86	--	3365.86
11/30/20	16.05	22.20	17	6.15	3384.03	3367.98	3361.83	16.10	19.40	20	3.30	3385.17	3369.07	3365.77	0	16.05	Out	0.00	3381.86	--	3365.81
12/7/20	16.10	17.15	17	1.05	3384.03	3367.93	3366.88	15.80	18.70	20	2.90	3385.17	3369.37	3366.47	0	16.00	Out	0.00	3381.86	--	3365.86
12/16/20	17.85	19.10	17	1.25	3384.03	3366.18	3364.93	16.05	19.14	20	3.09	3385.17	3369.12	3366.03	0	16.00	Out	0.00	3381.86	--	3365.86

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Appendix F.2 - Recovery System Gauging Data
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, NM

Well	RW-5R							RW-6R							RW-7R						
Date	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)
12/31/19	22.05	22.56	21.05	0.51	3378.56	3356.51	3356.00	25.55	28.15	16.25	2.60	3378.36	3352.81	3350.21	0.00	13.28	Out	0.00	3377.09	--	3363.81
1/6/20	20.90	21.53	21.05	0.63	3378.56	3357.66	3357.03	21.60	27.87	16.25	6.27	3378.36	3356.76	3350.49	0.00	13.40	Out	0.00	3377.09	--	3363.69
1/13/20	21.39	21.89	21.05	0.50	3378.56	3357.17	3356.67	21.30	27.35	16.25	6.05	3378.36	3357.06	3351.01	0.00	13.35	Out	0.00	3377.09	--	3363.74
1/20/20	21.30	21.60	21.05	0.30	3378.56	3357.26	3356.96	21.34	27.10	16.25	5.76	3378.36	3357.02	3351.26	0.00	13.50	Out	0.00	3377.09	--	3363.59
1/27/20	22.30	22.92	21.05	0.62	3378.56	3356.26	3355.64	0.00	28.15	22.5	0.00	3378.36	--	3350.21	0.00	13.45	Out	0.00	3377.09	--	3363.64
2/3/20	22.40	22.99	21.05	0.59	3378.56	3356.16	3355.57	28.00	28.10	22.5	0.10	3378.36	3350.36	3350.26	0.00	13.45	Out	0.00	3377.09	--	3363.64
2/10/20	22.10	22.80	21.05	0.70	3378.56	3356.46	3355.76	28.03	28.05	22.5	0.02	3378.36	3350.33	3350.31	0.00	13.60	Out	0.00	3377.09	--	3363.49
2/17/20	21.29	21.87	21.05	0.58	3378.56	3357.27	3356.69	0.00	27.30	22.5	0.00	3378.36	--	3351.06	0.00	13.35	Out	0.00	3377.09	--	3363.74
2/24/20	22.14	22.82	21.5	0.68	3378.56	3356.42	3355.74	0.00	27.40	22.5	0.00	3378.36	--	3350.96	0.00	13.43	Out	0.00	3377.09	--	3363.66
3/2/20	0.00	22.73	21.5	0.00	3378.56	--	3355.83	0.00	27.10	22.5	0.00	3378.36	--	3351.26	0.00	13.55	Out	0.00	3377.09	--	3363.54
3/9/20	22.34	22.35	21.5	0.01	3378.56	3356.22	3356.21	0.00	26.80	22.5	0.00	3378.36	--	3351.56	0.00	12.30	Out	0.00	3377.09	--	3364.79
3/17/20	22.00	23.03	21.5	1.03	3378.56	3356.56	3355.53	0.00	21.73	22.5	0.00	3378.36	--	3356.63	0.00	12.15	Out	0.00	3377.09	--	3364.94
3/23/20	22.50	23.23	21.5	0.73	3378.56	3356.06	3355.33	0.00	27.23	22.5	0.00	3378.36	--	3351.13	0.00	12.03	Out	0.00	3377.09	--	3365.06
3/31/20	22.85	24.00	21.5	1.15	3378.56	3355.71	3354.56	0.00	27.00	22.5	0.00	3378.36	--	3351.36	0.00	12.25	Out	0.00	3377.09	--	3364.84
4/6/20	0.00	22.52	22.5	0.00	3378.56	--	3356.04	0.00	27.05	22.5	0.00	3378.36	--	3351.31	0.00	12.30	Out	0.00	3377.09	--	3364.79
4/13/20	22.89	23.24	22.5	0.35	3378.56	3355.67	3355.32	0.00	27.20	22.5	0.00	3378.36	--	3351.16	0.00	12.59	Out	0.00	3377.09	--	3364.50
4/20/20	22.32	23.20	22.5	0.88	3378.56	3356.24	3355.36	0.00	27.00	22.5	0.00	3378.36	--	3351.36	0.00	12.65	Out	0.00	3377.09	--	3364.44
4/27/20	22.30	22.49	22.5	0.19	3378.56	3356.26	3356.07	0.00	26.85	22.5	0.00	3378.36	--	3351.51	0.00	12.80	Out	0.00	3377.09	--	3364.29
5/4/20	22.90	23.60	22.5	0.70	3378.56	3355.66	3354.96	0.00	26.65	22.5	0.00	3378.36	--	3351.71	0.00	13.00	Out	0.00	3377.09	--	3364.09
5/11/20	22.70	24.25	22.5	1.55	3378.56	3355.86	3354.31	0.00	26.10	22.5	0.00	3378.36	--	3352.26	0.00	13.15	Out	0.00	3377.09	--	3363.94
5/18/20	0.00	23.10	22.5	0.00	3378.56	--	3355.46	25.45	27.05	22.5	1.60	3378.36	3352.91	3351.31	0.00	13.35	Out	0.00	3377.09	--	3363.74
5/27/20	22.55	23.74	22.5	1.19	3378.56	3356.01	3354.82	25.00	26.75	22.5	1.75	3378.36	3353.36	3351.61	0.00	13.55	Out	0.00	3377.09	--	3363.54
6/1/20	22.85	22.86	22	0.01	3378.56	3355.71	3355.70	24.55	26.65	22.5	2.10	3378.36	3353.81	3351.71	0.00	13.80	Out	0.00	3377.09	--	3363.29
6/8/20	22.59	23.89	22	1.30	3378.56	3355.97	3354.67	24.05	26.55	22.5	2.50	3378.36	3354.31	3351.81	13.90	14.05	Out	0.15	3377.09	3363.19	3363.04
6/22/20	23.58	24.82	22	1.24	3378.56	3354.98	3353.74	23.55	27.00	22.5	3.45	3378.36	3354.81	3351.36	0.00	14.10	Out	0.00	3377.09	--	3362.99
6/29/20	22.50	25.50	22.5	3.00	3378.56	3356.06	3353.06	15.85	15.90	22.5	0.05	3378.36	3362.51	3362.46	0.00	14.50	Out	0.00	3377.09	--	3362.59
7/7/20	20.15	20.55	22.5	0.40	3378.56	3358.41	3358.01	15.68	15.70	22.5	0.02	3378.36	3362.68	3362.66	14.35	14.85	Out	0.50	3377.09	3362.74	3362.24
7/13/20	20.00	21.10	22.5	1.10	3378.56	3358.56	3357.46	15.60	15.75	22.5	0.15	3378.36	3362.76	3362.61	14.50	14.60	Out	0.10	3377.09	3362.59	3362.49
7/20/20	19.00	20.20	22.5	1.20	3379.56	3360.56	3359.36	15.60	15.80	22.5	0.20	3379.36	3363.76	3363.56	14.50	14.60	Out	0.10	3378.09	3363.59	3363.49
7/27/20	19.00	20.30	22.5	1.30	3380.56	3361.56	3360.26	14.40	16.60	22.5	2.20	3380.36	3365.96	3363.76	14.60	14.65	Out	0.05	3379.09	3364.49	3364.44
8/3/20	19.00	20.28	22.5	1.28	3380.56	3361.56	3360.28	15.65	15.70	22.5	0.05	3380.36	3364.71	3364.66	14.65	16.10	Out	1.45	3379.09	3364.44	3362.99
8/10/20	18.95	20.29	22.5	1.34	3380.56	3361.61	3360.27	15.55	15.62	22.5	0.07	3380.36	3364.81	3364.74	14.50	14.55	Out	0.05	3379.09	3364.59	3364.54
8/18/20	20.00	20.02	22.5	0.02	3381.56	3361.56	3361.54	15.55	15.65	22.5	0.10	3381.36	3365.81	3365.71	14.85	14.90	Out	0.05	3380.09	3365.24	3365.19
8/24/20	19.20	19.35	22.5	0.15	3382.56	3363.36	3363.21	0.00	15.75	22.5	0.00	3382.36	--	3366.61	14.90	15.00	Out	0.10	3381.09	3366.19	3366.09
8/31/20	19.22	19.45	22.5	0.23	3382.56	3363.34	3363.11	23.55	23.90	22.5	0.35	3382.36	3358.81	3358.46	0.00	15.00	Out	0.00	3381.09	--	3366.09
9/8/20	20.87	21.85	22.5	0.98	3382.56	3361.69	3360.71	23.85	25.80	22.5	1.95	3382.36	3358.51	3356.56	18.35	20.43	Out	2.08	3381.09	3362.74	3360.66
9/14/20	22.05	23.25	22.5	1.20	3382.56	3360.51	3359.31	23.35	26.25	22.5	2.90	3382.36	3359.01	3356.11	18.10	20.50	Out	2.40	3381.09	3362.99	3360.59
9/21/20	23.30	23.42	22.5	0.12	3383.56	3360.26	3360.14	23.50	25.50	22.5	2.00	3383.36	3359.86	3357.86	18.25	24.40	18	6.15	3382.09	3363.84	3357.69
9/28/20	22.73	23.05	22.5	0.32	3383.56	3360.83	3360.51	20.55	25.30	23.5	4.75	3383.36	3362.81	3358.06	18.25	25.20	18	6.95	3382.09	3363.84	3356.89
10/5/20	21.00	21.35	22.5	0.35	3384.56	3363.56	3363.21	17.80	22.15	23.5	4.35	3384.36	3366.56	3362.21	18.45	24.14	18	5.69	3383.09	3364.64	3358.95
10/12/20	21.70	22.68	22.5	0.98	3385.56	3363.86	3362.88	16.40	16.90	23.5	0.50	3385.36	3368.96	3368.46	19.10	21.33	19	2.23	3384.09	3364.99	3362.76
10/19/20	21.50	22.52	22.5	1.02	3385.56	3364.06	3363.04	16.15	16.70	23.5	0.55	3385.36	3369.21	3368.66	19.40	21.15	19	1.75	3384.09	3364.69	3362.94
10/26/20	22.43	22.75	22.5	0.32	3385.56	3363.13	3362.81	21.55	25.60	23.5	4.05	3385.36	3363.81	3359.76	19.65	21.60	19	1.95	3384.09	3364.44	3362.49
11/2/20	22.20	23.15	22.5	0.95	3385.56	3363.36	3362.41	21.30	25.90	23.5	4.60	3385.36	3364.06	3359.46	19.35	24.80	19	5.45	3384.09	3364.74	3359.29
11/9/20	21.05	21.35	22.5	0.30	3385.56	3364.51	3364.21	17.95	25.70	23.5	7.75	3385.36	3367.41	3359.66	19.40	23.80	19	4.40	3384.09	3364.69	3360.29
11/16/20	21.80	22.10	22.5	0.30	3385.56	3363.76	3363.46	17.30	24.40	23.5	7.10	3385.36	3368.06	3360.96	20.20	21.30	19	1.10	3384.09	3363.89	3362.79
11/23/20	21.95	23.05	22.5	1.10	3385.56	3363.61	3362.51	22.50	23.95	23.5	1.45	3385.36	3362.86	3361.41	20.30	21.85	19	1.55	3384.09	3363.79	3362.24
11/30/20	21.63	23.70	22.5	2.07	3385.56	3363.93	3361.86	17.25	22.35	23.5	5.10	3385.36	3368.11	3363.01	20.10	24.45	19	4.35	3384.09	3363.99	3359.64
12/7/20	22.57	23.55	21.5	0.98	3385.56	3362.99	3362.01	19.70	24.10	21.5	4.40	3385.36	3365.66	3361.26	20.50	21.55	18	1.05	3384.09	3363.59	3362.54
12/16/20	21.95	22.45	21.5	0.50	3385.56	3363.61	3363.11	23.20	24.20	21.5	1.00	3385.36	3362.16	3361.16	20.10	21.70	18	1.60	3384.09	3363.99	3362.39

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Appendix F.2 - Recovery System Gauging Data
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, NM

Well	RW-8R							RW-12R							RW-13R						
Date	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)
12/31/19	12.85	14.85	14.22	2.00	3378.10	3365.25	3363.25	0	24.28	Out	0.00	3361.54	--	3337.26	22.00	22.17	22.25	0.17	3361.54	3339.54	3339.37
1/6/20	12.83	14.90	14.22	2.07	3378.10	3365.27	3363.20	0	24.49	Out	0.00	3361.54	--	3337.05	22.15	22.17	22.25	0.02	3361.54	3339.39	3339.37
1/13/20	12.78	14.55	14.22	1.77	3378.10	3365.32	3363.55	0	24.63	Out	0.00	3361.54	--	3336.91	22.32	22.35	22.25	0.03	3361.54	3339.22	3339.19
1/20/20	13.00	15.15	14.22	2.15	3378.10	3365.10	3362.95	0	24.77	Out	0.00	3361.54	--	3336.77	22.52	22.56	22.25	0.04	3361.54	3339.02	3338.98
1/27/20	12.90	15.00	14.22	2.10	3378.10	3365.20	3363.10	0	24.85	Out	0.00	3361.54	--	3336.69	22.70	22.73	22.25	0.03	3361.54	3338.84	3338.81
2/3/20	12.90	14.90	14.22	2.00	3378.10	3365.20	3363.20	0	24.93	Out	0.00	3361.54	--	3336.61	22.82	22.84	22.25	0.02	3361.54	3338.72	3338.70
2/10/20	13.05	15.15	14.22	2.10	3378.10	3365.05	3362.95	0	25.05	Out	0.00	3361.54	--	3336.49	23.07	23.15	22.25	0.08	3361.54	3338.47	3338.39
2/17/20	12.85	14.70	14.22	1.85	3378.10	3365.25	3363.40	0	25.13	Out	0.00	3361.54	--	3336.41	23.12	23.18	22.25	0.06	3361.54	3338.42	3338.36
2/24/20	12.90	14.90	14.22	2.00	3378.10	3365.20	3363.20	0	25.23	Out	0.00	3361.54	--	3336.31	23.33	23.34	22.25	0.01	3361.54	3338.21	3338.20
3/2/20	13.00	15.80	14.22	2.80	3378.10	3365.10	3362.30	0	25.33	Out	0.00	3361.54	--	3336.21	26.32	26.33	22.25	0.01	3361.54	3335.22	3335.21
3/9/20	12.05	13.65	14.22	1.60	3378.10	3366.05	3364.45	0	25.36	Out	0.00	3361.54	--	3336.18	25.94	25.98	22.25	0.04	3361.54	3335.60	3335.56
3/17/20	11.75	13.40	14.22	1.65	3378.10	3366.35	3364.70	0	25.40	Out	0.00	3361.54	--	3336.14	24.39	29.99	22.25	5.60	3361.54	3337.15	3331.55
3/23/20	11.60	13.29	14.22	1.69	3378.10	3366.50	3364.81	0	25.40	Out	0.00	3361.54	--	3336.14	23.69	23.80	22.25	0.11	3361.54	3337.85	3337.74
3/31/20	11.85	13.40	14.22	1.55	3378.10	3366.25	3364.70	0	25.55	Out	0.00	3361.54	--	3335.99	23.75	24.00	22.25	0.25	3361.54	3337.79	3337.54
4/6/20	12.05	13.60	14.22	1.55	3378.10	3366.05	3364.50	0	25.69	Out	0.00	3361.54	--	3335.85	23.80	24.15	22.25	0.35	3361.54	3337.74	3337.39
4/13/20	12.23	13.90	14.22	1.67	3378.10	3365.87	3364.20	0	25.74	Out	0.00	3361.54	--	3335.80	23.92	24.30	22.25	0.38	3361.54	3337.62	3337.24
4/20/20	12.40	14.00	14.22	1.60	3378.10	3365.70	3364.10	0	25.85	Out	0.00	3361.54	--	3335.69	24.00	24.30	22.25	0.30	3361.54	3337.54	3337.24
4/27/20	12.58	14.20	14.22	1.62	3378.10	3365.52	3363.90	0	25.85	Out	0.00	3361.54	--	3335.69	24.00	24.35	22.25	0.35	3361.54	3337.54	3337.19
5/4/20	12.70	14.70	14.22	2.00	3378.10	3365.40	3363.40	0	25.80	Out	0.00	3361.54	--	3335.74	23.80	24.10	22.25	0.30	3361.54	3337.74	3337.44
5/11/20	12.95	13.25	14.22	0.30	3378.10	3365.15	3364.85	0	23.90	Out	0.00	3361.54	--	3337.64	21.65	21.95	22.25	0.30	3361.54	3339.89	3339.59
5/18/20	13.10	15.00	14.22	1.90	3378.10	3365.00	3363.10	0	23.63	Out	0.00	3361.54	--	3337.91	21.55	21.62	22.25	0.07	3361.54	3339.99	3339.92
5/27/20	13.45	15.35	14.22	1.90	3378.10	3364.65	3362.75	0	24.35	Out	0.00	3361.54	--	3337.19	21.75	22.15	22.25	0.40	3361.54	3339.79	3339.39
6/1/20	13.55	15.90	14.22	2.35	3378.10	3364.55	3362.20	0	24.68	Out	0.00	3361.54	--	3336.86	25.50	30.30	25.75	4.80	3361.54	3336.04	3331.24
6/8/20	13.80	15.70	14.22	1.90	3378.10	3364.30	3362.40	0	22.67	Out	0.00	3361.54	--	3338.87	21.27	23.40	25.75	2.13	3361.54	3340.27	3338.14
6/22/20	13.85	16.25	14.22	2.40	3378.10	3364.25	3361.85	0	23.77	Out	0.00	3361.54	--	3337.77	23.64	30.15	25.75	6.51	3361.54	3337.90	3331.39
6/29/20	13.90	16.35	14.22	2.45	3378.10	3364.20	3361.75	0	22.55	Out	0.00	3361.54	--	3338.99	20.65	21.10	25.75	0.45	3361.54	3340.89	3340.44
7/7/20	14.03	17.20	14.22	3.17	3378.10	3364.07	3360.90	0	21.27	Out	0.00	3361.54	--	3340.27	19.35	19.90	25.75	0.55	3361.54	3342.19	3341.64
7/13/20	14.10	17.10	14.22	3.00	3378.10	3364.00	3361.00	0	21.65	Out	0.00	3361.54	--	3339.89	19.80	20.08	25.75	0.28	3361.54	3341.74	3341.46
7/20/20	14.25	16.75	14.22	2.50	3379.10	3364.85	3362.35	0	21.67	Out	0.00	3362.54	--	3340.87	20.20	20.40	25.75	0.20	3362.54	3342.34	3342.14
7/27/20	14.40	16.60	14.22	2.20	3380.10	3365.70	3363.50	0	21.65	Out	0.00	3363.54	--	3341.89	20.15	20.40	25.75	0.25	3363.54	3343.39	3343.14
8/3/20	14.40	16.55	14.22	2.15	3380.10	3365.70	3363.55	0	21.65	Out	0.00	3363.54	--	3341.89	19.10	19.40	25.75	0.30	3363.54	3344.44	3344.14
8/10/20	14.40	16.80	14.22	2.40	3380.10	3365.70	3363.30	0	21.44	Out	0.00	3363.54	--	3342.10	19.68	19.98	25.75	0.30	3363.54	3343.86	3343.56
8/18/20	14.55	16.70	14.22	2.15	3381.10	3366.55	3364.40	0	21.50	Out	0.00	3364.54	--	3343.04	19.20	19.43	25.75	0.23	3364.54	3345.34	3345.11
8/24/20	14.50	16.80	14.22	2.30	3382.10	3367.60	3365.30	0	21.50	Out	0.00	3365.54	--	3344.04	19.82	19.99	25.75	0.17	3365.54	3345.72	3345.55
8/31/20	15.00	16.90	14.22	1.90	3382.10	3367.10	3365.20	0	21.55	Out	0.00	3365.54	--	3343.99	19.79	19.99	25.75	0.20	3365.54	3345.75	3345.55
9/8/20	17.25	23.55	14.22	6.30	3382.10	3364.85	3358.55	0	21.98	Out	0.00	3365.54	--	3343.56	20.25	20.83	25.75	0.58	3365.54	3345.29	3344.71
9/14/20	18.05	22.85	14.22	4.80	3382.10	3364.05	3359.25	0	22.53	Out	0.00	3365.54	--	3343.01	20.80	20.90	25.75	0.10	3365.54	3344.74	3344.64
9/21/20	18.50	22.20	18	3.70	3383.10	3364.60	3360.90	0	22.20	Out	0.00	3366.54	--	3344.34	19.68	19.89	25.75	0.21	3366.54	3346.86	3346.65
9/28/20	17.85	23.15	18.5	5.30	3383.10	3365.25	3359.95	0	22.70	Out	0.00	3366.54	--	3343.84	0.00	32.75	25.75	0.00	3366.54	--	3333.79
10/5/20	18.02	22.48	18.5	4.46	3384.10	3366.08	3361.62	0	21.60	Out	0.00	3367.54	--	3345.94	22.90	30.90	25.75	8.00	3367.54	3344.64	3336.64
10/12/20	19.15	22.34	18.5	3.19	3385.10	3365.95	3362.76	0	21.60	Out	0.00	3368.54	--	3346.94	21.05	21.28	25.75	0.23	3368.54	3347.49	3347.26
10/19/20	18.60	21.15	18.5	2.55	3385.10	3366.50	3363.95	0	22.15	Out	0.00	3368.54	--	3346.39	20.30	20.60	25.75	0.30	3368.54	3348.24	3347.94
10/26/20	18.70	20.85	18.5	2.15	3385.10	3366.40	3364.25	0	22.00	Out	0.00	3368.54	--	3346.54	30.35	32.30	25.75	1.95	3368.54	3338.19	3336.24
11/2/20	18.90	22.15	18.5	3.25	3385.10	3366.20	3362.95	0	24.30	Out	0.00	3368.54	--	3344.24	30.25	32.73	25.75	2.48	3368.54	3338.29	3335.81
11/9/20	18.00	21.90	18.5	3.90	3385.10	3367.10	3363.20	0	24.30	Out	0.00	3368.54	--	3344.24	23.25	25.15	25.75	1.90	3368.54	3345.29	3343.39
11/16/20	18.35	21.75	18.5	3.40	3385.10	3366.75	3363.35	0	25.25	Out	0.00	3368.54	--	3343.29	23.30	28.39	25.75	5.09	3368.54	3345.24	3340.15
11/23/20	18.20	21.60	18.5	3.40	3385.10	3366.90	3363.50	0	25.20	Out	0.00	3368.54	--	3343.34	23.30	23.70	23.75	0.40	3368.54	3345.24	3344.84
11/30/20	17.25	22.35	18.5	5.10	3385.10	3367.85	3362.75	0	25.20	Out	0.00	3368.54	--	3343.34	23.45	24.38	23.75	0.93	3368.54	3345.09	3344.16
12/7/20	18.25	21.10	18.5	2.85	3385.10	3366.85	3364.00	0	25.25	Out	0.00	3368.54	--	3343.29	23.65	24.20	23.75	0.55	3368.54	3344.89	3344.34
12/16/20	18.00	20.20	18.5	2.20	3385.10	3367.10	3364.90	0	25.25	Out	0.00	3368.54	--	3343.29	23.82	24.95	23.75	1.13	3368.54	3344.72	3343.59

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Appendix F.2 - Recovery System Gauging Data
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, NM

Well	RW-14R							RW-15							RW-19						
Date	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)
12/31/19	20.35	20.40	19.83	0.05	3359.37	3339.02	3338.97	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.47	25.60	27.5	0.13	3379.11	3353.64	3353.51
1/6/20	20.27	20.64	19.83	0.37	3359.37	3339.10	3338.73	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.59	25.70	27.5	0.11	3379.11	3353.52	3353.41
1/13/20	20.38	20.92	19.83	0.54	3359.37	3338.99	3338.45	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.61	25.79	27.5	0.18	3379.11	3353.50	3353.32
1/20/20	20.70	21.32	19.83	0.62	3359.37	3338.67	3338.05	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.79	25.94	27.5	0.15	3379.11	3353.32	3353.17
1/27/20	20.63	21.69	19.83	1.06	3359.37	3338.74	3337.68	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.80	25.95	27.5	0.15	3379.11	3353.31	3353.16
2/3/20	20.65	22.10	19.83	1.45	3359.37	3338.72	3337.27	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	25.82	25.95	27.5	0.13	3379.11	3353.29	3353.16
2/10/20	20.75	22.60	19.83	1.85	3359.37	3338.62	3336.77	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.11	26.26	27.5	0.15	3379.11	3353.00	3352.85
2/17/20	20.89	22.65	20.33	1.76	3359.37	3338.48	3336.72	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	34.37	34.65	27.5	0.28	3379.11	3344.74	3344.46
2/24/20	20.89	23.28	21.00	2.39	3359.37	3338.48	3336.09	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.35	26.50	27.5	0.15	3379.11	3352.76	3352.61
3/2/20	20.85	27.97	21.00	7.12	3359.37	3338.52	3331.40	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	32.49	32.74	27.5	0.25	3379.11	3346.62	3346.37
3/9/20	20.90	26.51	21.00	5.61	3359.37	3338.47	3332.86	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.60	26.74	32	0.14	3379.11	3352.51	3352.37
3/17/20	22.15	23.89	22.00	1.74	3359.37	3337.22	3335.48	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.41	26.48	32	0.07	3379.11	3352.70	3352.63
3/23/20	22.35	27.00	22.00	4.65	3359.37	3337.02	3332.37	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.43	26.47	32	0.04	3379.11	3352.68	3352.64
3/31/20	22.85	27.05	22.00	4.20	3359.37	3336.52	3332.32	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.55	26.59	32	0.04	3379.11	3352.56	3352.52
4/6/20	21.76	26.43	22.00	4.67	3359.37	3337.61	3332.94	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.65	26.73	32	0.08	3379.11	3352.46	3352.38
4/13/20	22.70	25.40	22.00	2.70	3359.37	3336.67	3333.97	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.82	26.83	32	0.01	3379.11	3352.29	3352.28
4/20/20	22.40	24.65	22.00	2.25	3359.37	3336.97	3334.72	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.79	26.85	32	0.06	3379.11	3352.32	3352.26
4/27/20	21.45	30.34	22.50	8.89	3359.37	3337.92	3329.03	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.82	26.90	32	0.08	3379.11	3352.29	3352.21
5/4/20	22.55	25.39	22.50	2.84	3359.37	3336.82	3333.98	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	26.89	26.95	32	0.06	3379.11	3352.22	3352.16
5/11/20	21.75	21.90	22.50	0.15	3359.37	3337.62	3337.47	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.00	27.22	32	0.22	3379.11	3352.11	3351.89
5/18/20	20.65	31.45	22.50	10.80	3359.37	3338.72	3327.92	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.00	27.10	32	0.10	3379.11	3352.11	3352.01
5/27/20	22.00	31.15	22.50	9.15	3359.37	3337.37	3328.22	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.10	27.15	32	0.05	3379.11	3352.01	3351.96
6/1/20	22.05	31.55	23.50	9.50	3359.37	3337.32	3327.82	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.19	27.35	32	0.16	3379.11	3351.92	3351.76
6/8/20	21.20	22.10	23.50	0.90	3359.37	3338.17	3337.27	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.15	27.30	32	0.15	3379.11	3351.96	3351.81
6/22/20	22.10	23.78	23.50	1.68	3359.37	3337.27	3335.59	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.32	27.38	32	0.06	3379.11	3351.79	3351.73
6/29/20	18.85	18.95	21.50	0.10	3359.37	3340.52	3340.42	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.35	27.45	32	0.10	3379.11	3351.76	3351.66
7/7/20	18.00	18.15	21.50	0.15	3359.37	3341.37	3341.22	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.45	27.75	32	0.30	3379.11	3351.66	3351.36
7/13/20	18.15	18.30	21.50	0.15	3359.37	3341.22	3341.07	16.80	16.81	Out	0.01	3375.30	3358.50	3358.49	27.50	27.82	32	0.32	3379.11	3351.61	3351.29
7/20/20	18.55	18.68	21.50	0.13	3360.37	3341.82	3341.69	16.80	16.81	Out	0.01	3376.30	3359.50	3359.49	27.50	27.60	32	0.10	3380.11	3352.61	3352.51
7/27/20	18.39	18.55	21.50	0.16	3361.37	3342.98	3342.82	16.80	16.81	Out	0.01	3377.30	3360.50	3360.49	27.55	27.60	32	0.05	3381.11	3353.56	3353.51
8/3/20	18.40	18.59	21.50	0.19	3361.37	3342.97	3342.78	16.80	16.81	Out	0.01	3377.30	3360.50	3360.49	27.59	27.67	32	0.08	3381.11	3353.52	3353.44
8/10/20	18.15	18.43	21.50	0.28	3361.37	3343.22	3342.94	16.80	16.81	Out	0.01	3377.30	3360.50	3360.49	27.60	27.69	32	0.09	3381.11	3353.51	3353.42
8/18/20	18.35	18.49	21.50	0.14	3362.37	3344.02	3343.88	16.80	16.81	Out	0.01	3378.30	3361.50	3361.49	27.60	27.68	32	0.08	3382.11	3354.51	3354.43
8/24/20	18.45	18.62	21.50	0.17	3363.37	3344.92	3344.75	16.80	16.81	Out	0.01	3379.30	3362.50	3362.49	27.65	27.75	32	0.10	3383.11	3355.46	3355.36
8/31/20	18.55	19.09	21.50	0.54	3363.37	3344.82	3344.28	16.80	16.81	Out	0.01	3379.30	3362.50	3362.49	27.63	27.76	32	0.13	3383.11	3355.48	3355.35
9/8/20	19.00	19.01	21.50	0.01	3363.37	3344.37	3344.36	16.80	16.81	Out	0.01	3379.30	3362.50	3362.49	27.62	27.70	32	0.08	3383.11	3355.49	3355.41
9/14/20	18.99	19.15	21.50	0.16	3363.37	3344.38	3344.22	16.80	16.81	Out	0.01	3379.30	3362.50	3362.49	27.75	27.89	32	0.14	3383.11	3355.36	3355.22
9/21/20	19.00	31.75	21.50	12.75	3364.37	3345.37	3332.62	16.80	16.81	Out	0.01	3380.30	3363.50	3363.49	27.78	27.87	32	0.09	3384.11	3356.33	3356.24
9/28/20	19.59	21.95	21.50	2.36	3364.37	3344.78	3342.42	16.80	16.81	Out	0.01	3380.30	3363.50	3363.49	27.43	27.44	32	0.01	3384.11	3356.68	3356.67
10/5/20	18.62	19.40	21.50	0.78	3365.37	3346.75	3345.97	16.80	16.81	Out	0.01	3381.30	3364.50	3364.49	22.80	22.95	32	0.15	3385.11	3362.31	3362.16
10/12/20	20.17	22.25	20.50	2.08	3366.37	3346.20	3344.12	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	27.95	28.05	32	0.10	3386.11	3358.16	3358.06
10/19/20	19.89	21.45	20.50	1.56	3366.37	3346.48	3344.92	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	27.92	28.00	32	0.08	3386.11	3358.19	3358.11
10/26/20	20.85	21.80	20.50	0.95	3366.37	3345.52	3344.57	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.00	28.15	32	0.15	3386.11	3358.11	3357.96
11/2/20	19.55	20.15	20.50	0.60	3366.37	3346.82	3346.22	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.00	28.10	32	0.10	3386.11	3358.11	3358.01
11/9/20	19.90	20.40	20.50	0.50	3366.37	3346.47	3345.97	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.00	28.10	32	0.10	3386.11	3358.11	3358.01
11/16/20	20.52	20.65	20.50	0.13	3366.37	3345.85	3345.72	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.15	28.23	32	0.08	3386.11	3357.96	3357.88
11/23/20	20.40	21.77	20.50	1.37	3366.37	3345.97	3344.60	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.10	28.25	32	0.15	3386.11	3358.01	3357.86
11/30/20	20.87	22.75	20.50	1.88	3366.37	3345.50	3343.62	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	28.43	28.45	32	0.02	3386.11	3357.68	3357.66
12/7/20	21.35	23.45	20.50	2.10	3366.37	3345.02	3342.92	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	26.40	27.10	32	0.70	3386.11	3359.71	3359.01
12/16/20	20.80	23.70	20.50	2.90	3366.37	3345.57	3342.67	16.80	16.81	Out	0.01	3382.30	3365.50	3365.49	26.95	27.08	32	0.13	3386.11	3359.16	3359.03

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Appendix F.2 - Recovery System Gauging Data
2020 Annual Groundwater Monitoring Report
HollyFrontier Navajo Refining LLC, Artesia Refinery, Artesia, NM

Well	RW-20							RW-22						
Date	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)	Depth to PSH (feet btoc)	Depth to Water (feet btoc)	Product Pump (feet btoc)	PSH Thickness (feet)	TOC Elevation (feet)	PSH Elevation (feet)	Water Elevation (feet)
12/31/19	20.55	20.60	16.00	0.05	3358.44	3337.89	3337.84	24.25	24.86	27.00	0.61	3359.21	3334.96	3334.35
1/6/20	20.55	20.60	16.00	0.05	3358.44	3337.89	3337.84	25.63	26.87	27.00	1.24	3359.21	3333.58	3332.34
1/13/20	20.55	20.60	16.00	0.05	3358.44	3337.89	3337.84	26.39	28.34	27.00	1.95	3359.21	3332.82	3330.87
1/20/20	20.60	20.65	16.00	0.05	3358.44	3337.84	3337.79	27.00	28.80	27.00	1.80	3359.21	3332.21	3330.41
1/27/20	20.85	21.00	16.00	0.15	3358.44	3337.59	3337.44	26.40	28.55	27.00	2.15	3359.21	3332.81	3330.66
2/3/20	20.90	21.00	16.00	0.10	3358.44	3337.54	3337.44	25.90	31.30	27.00	5.40	3359.21	3333.31	3327.91
2/10/20	20.90	20.95	16.00	0.05	3358.44	3337.54	3337.49	25.80	28.75	27.00	2.95	3359.21	3333.41	3330.46
2/17/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.59	31.95	27.00	6.36	3359.21	3333.62	3327.26
2/24/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.43	33.42	27.00	7.99	3359.21	3333.78	3325.79
3/2/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	24.80	32.65	27.00	7.85	3359.21	3334.41	3326.56
3/9/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.62	29.40	27.00	3.78	3359.21	3333.59	3329.81
3/17/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.62	25.90	27.00	0.28	3359.21	3333.59	3333.31
3/23/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.30	25.61	27.00	0.31	3359.21	3333.91	3333.60
3/31/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	25.80	25.90	27.00	0.10	3359.21	3333.41	3333.31
4/6/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	24.90	28.07	27.00	3.17	3359.21	3334.31	3331.14
4/13/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	27.70	30.15	27.00	2.45	3359.21	3331.51	3329.06
4/20/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	27.59	29.62	27.00	2.03	3359.21	3331.62	3329.59
4/27/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	27.29	29.48	27.50	2.19	3359.21	3331.92	3329.73
5/4/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	27.25	29.19	27.50	1.94	3359.21	3331.96	3330.02
5/11/20	0.00	0.00	16.00	0.00	3358.44	--	3358.44	27.34	27.75	27.50	0.41	3359.21	3331.87	3331.46
5/18/20	17.79	17.90	16.00	0.11	3358.44	3340.65	3340.54	27.48	27.88	27.50	0.40	3359.21	3331.73	3331.33
5/27/20	18.65	18.75	16.00	0.10	3358.44	3339.79	3339.69	27.30	27.56	27.50	0.26	3359.21	3331.91	3331.65
6/1/20	19.10	19.30	16.00	0.20	3358.44	3339.34	3339.14	26.08	26.18	27.50	0.10	3359.21	3333.13	3333.03
6/8/20	17.80	18.00	16.00	0.20	3358.44	3340.64	3340.44	23.03	23.25	27.50	0.22	3359.21	3336.18	3335.96
6/22/20	18.25	18.00	16.00	-0.25	3358.44	3340.19	3340.44	23.79	32.00	27.50	8.21	3359.21	3335.42	3327.21
6/29/20	16.90	17.40	16.00	0.50	3358.44	3341.54	3341.04	18.90	20.02	27.50	1.12	3359.21	3340.31	3339.19
7/7/20	15.30	16.30	16.00	1.00	3358.44	3343.14	3342.14	16.15	18.15	27.50	2.00	3359.21	3343.06	3341.06
7/13/20	16.10	16.15	16.00	0.05	3358.44	3342.34	3342.29	18.05	19.59	27.50	1.54	3359.21	3341.16	3339.62
7/20/20	20.40	20.50	16.00	0.10	3359.44	3339.04	3338.94	18.05	19.59	27.50	1.54	3360.21	3342.16	3340.62
7/27/20	0.00	20.80	16.00	0.00	3360.44	--	3339.64	18.50	19.70	27.50	1.20	3361.21	3342.71	3341.51
8/3/20	0.00	19.85	16.00	0.00	3360.44	--	3340.59	18.50	19.70	27.50	1.20	3361.21	3342.71	3341.51
8/10/20	0.00	19.60	16.00	0.00	3360.44	--	3340.84	18.00	19.79	27.50	1.79	3361.21	3343.21	3341.42
8/18/20	20.80	20.85	16.00	0.05	3361.44	3340.64	3340.59	16.62	17.55	27.50	0.93	3362.21	3345.59	3344.66
8/24/20	19.50	19.65	16.00	0.15	3362.44	3342.94	3342.79	18.25	19.40	27.50	1.15	3363.21	3344.96	3343.81
8/31/20	20.55	20.60	16.00	0.05	3362.44	3341.89	3341.84	17.15	18.25	27.50	1.10	3363.21	3346.06	3344.96
9/8/20	16.55	17.45	16.00	0.90	3362.44	3345.89	3344.99	18.79	19.75	27.50	0.96	3363.21	3344.42	3343.46
9/14/20	20.45	20.60	16.00	0.15	3362.44	3341.99	3341.84	18.79	19.75	27.50	0.96	3363.21	3344.42	3343.46
9/21/20	0.00	21.00	16.00	0.00	3363.44	--	3342.44	23.55	24.73	23.50	1.18	3364.21	3340.66	3339.48
9/28/20	20.73	20.90	16.00	0.17	3363.44	3342.71	3342.54	23.45	24.53	23.50	1.08	3364.21	3340.76	3339.68
10/5/20	20.40	20.70	16.00	0.30	3364.44	3344.04	3343.74	21.30	22.40	23.50	1.10	3365.21	3343.91	3342.81
10/12/20	20.60	20.70	16.00	0.10	3365.44	3344.84	3344.74	23.35	23.95	23.50	0.60	3366.21	3342.86	3342.26
10/19/20	19.90	19.95	16.00	0.05	3365.44	3345.54	3345.49	23.64	24.02	23.50	0.38	3366.21	3342.57	3342.19
10/26/20	19.90	20.00	16.00	0.10	3365.44	3345.54	3345.44	23.45	24.08	23.50	0.63	3366.21	3342.76	3342.13
11/2/20	20.65	20.70	16.00	0.05	3365.44	3344.79	3344.74	23.59	24.03	23.50	0.44	3366.21	3342.62	3342.18
11/9/20	20.65	20.69	16.00	0.04	3365.44	3344.79	3344.75	23.70	24.20	23.50	0.50	3366.21	3342.51	3342.01
11/16/20	20.70	21.20	16.00	0.50	3365.44	3344.74	3344.24	23.53	23.73	23.50	0.20	3366.21	3342.68	3342.48
11/23/20	20.71	20.80	16.00	0.09	3365.44	3344.73	3344.64	23.85	24.25	23.50	0.40	3366.21	3342.36	3341.96
11/30/20	20.70	20.79	16.00	0.09	3365.44	3344.74	3344.65	24.13	24.25	23.50	0.12	3366.21	3342.08	3341.96
12/7/20	20.71	20.85	16.00	0.14	3365.44	3344.73	3344.59	25.83	27.70	25.50	1.87	3366.21	3340.38	3338.51
12/16/20	0.00	20.30	16.00	0.00	3365.44	--	3345.14	26.10	27.10	25.50	1.00	3366.21	3340.11	3339.11

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 33402

CONDITIONS

Operator: HF Sinclair Navajo Refining LLC ATTN: GENERAL COUNSEL Dallas, TX 75201	OGRID: 15694
	Action Number: 33402
	Action Type: [UF-DP] Discharge Permit (DISCHARGE PERMIT)

CONDITIONS

Created By	Condition	Condition Date
scwells	Accepted for Record Retention Purposes-Only	11/22/2022